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 \*\* Nova Technology; loading dock equipment, vehicle restraints, dock levelers, dock seals, dock shelters, safety gates.  
This section is based on the products of Nova Technology, which is located at:  
W141N9240 Fountain Blvd.  
Menomonee Falls, WI 53051  
Toll Free Tel: 800-236-7325  
Tel: 262-502-1591  
Fax: 262-502-1511  
Email: [request info (sales@novalocks.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Nova+Technology&coid=43493&rep=&fax=262-502-1511&message=RE:%20Spec%20Question%20(11160nov):%20%20&mf=)  
Web: <http://www.novalocks.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos43/arc43493.html) ] for additional information.  
Since 1986, Nova has brought innovation and reliability to the loading dock equipment industry with a full line of effective, durable and user friendly products. Our product portfolio is both broad and deep, encompassing a comprehensive series of trailer restraints including the acclaimed Truck Lock, dock seals and shelters, dock levelers, accessories and more. Additionally, we provide a broad array of Nova aftermarket service parts.  
Nova is continually adding new products and services to meet the evolving needs of the material handling industry. Our R&D capabilities enable us to design solutions that meet the requirements of this demanding environment - increasing our customers' productivity while decreasing their operations costs due to loading dock downtime or accidents.  
Nova's 2-1/2 acre headquarters and manufacturing facility is centrally located in southeastern Wisconsin and we have a nationwide network of trained loading dock equipment dealers, distributors, and installers to serve you. With our commitment to product development, quality and superior customer service, Nova's goal is to become your preferred partner for loading dock safety and efficiency solutions.

1. GENERAL
   1. SECTION INCLUDES

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

* + 1. Hydraulic Dock Levelers:
       1. Dock Levelers. (NHS Series)
       2. Dock Levelers. (NHS Series High Capacity)
    2. Air Powered Dock Levelers:
       1. Dock Levelers. (NAS Series)
    3. Mechanical Dock Levelers:
       1. Dock Levelers. (NMS Series)
    4. Edge-of-Dock Levelers:
       1. Edge-of-Dock Levelers. (Hydraulic)
       2. Edge-of-Dock Levelers. (Mechanical)
    5. Vehicle Restraints:
       1. Vertical Barrier Restraints. (Truck Lock)
       2. Vertical Barrier Restraints. (Lock-Up)
       3. Rotating Hook Restraints. (Lock & Load)
    6. Dock Seals and Shelters:
       1. Dock Seals with Head Pad. (FP Series)
       2. Dock Seals with Hood-Style Head Curtain. (FPH Series)
       3. Dock Seals with Head Pad. (FPU Series)
       4. Dock Seals with Hood-Style Head Curtain. (FPHU Series)
       5. Dock Shelters. (RF Series)
       6. Soft-Sided Shelters. (SS Series)
       7. Soft-Sided Shelters.
       8. Dairy Seal.
    7. Safety Gates:
       1. Dock Sentinel Safety Gate.
    8. Safety Barriers:
       1. NOVA Defender Gates.
    9. Truck Locks:
       1. NOVA 350 Series - Cast-In Style.
       2. NOVA 350 Series - Flange Style.
       3. NOVA Low Profile - Cast-In Style
       4. NOVA Low Profile - Flange Style
  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 26 05 00 - Common Work Results for Electrical.
  1. REFERENCES

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

* + 1. ANSI MH14.1 - Loading Dock Levelers and Dock Boards.
    2. ANSI MH30.1 - Dock Leveling Devices.
    3. ANSI MH30.3 - Vehicle Restraining Devices: Safety, Performance, and Testing.
    4. ASTM A 500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data: Manufacturer's data sheets on each product to be used, including:
        1. Preparation instructions and recommendations.
        2. Storage and handling requirements and recommendations.
        3. Installation methods.
     3. Shop Drawings: Including details of construction and relationship with adjacent construction. Include clearances for servicing. Indicate items to be built-in and electrical requirements.
  2. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Minimum 20 years' experience manufacturing similar equipment.
     2. Installer Qualifications: Minimum 2 years' experience installing similar equipment.
  3. DELIVERY, STORAGE, AND HANDLING
     1. Delivery, store and handle products in accordance with manufacturer's instructions.
  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. Warranty: Provide manufacturer's standard limited warranty, and as specified with individual model numbers.

1. PRODUCTS
   1. MANUFACTURES
      1. Acceptable Manufacturer: Nova Technology, which is located at: W141N9240 Fountain Blvd.; Menomonee Falls, WI 53051; Toll Free Tel: 800-236-7325; Tel: 262-502-1591; Fax: 262-502-1511; Email: [request info (sales@novalocks.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Nova+Technology&coid=43493&rep=&fax=262-502-1511&message=RE:%20Spec%20Question%20(11160nov):%20%20&mf=); Web: <http://www.novalocks.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.

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

* 1. HYDRAULIC DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* NOVA's NHS Series Premium Hydraulic Dock Levelers incorporate the use of hydraulics to raise and lower both the platform and lip. A single push-button activates a hydraulic pump for operating both the leveler platform and lip cylinders. Delete if not required.

* + 1. Dock Levelers: NHS Hydraulic Series (25,000 to 40,000) by Nova Technology with the following characteristics:

\*\* NOTE TO SPECIFIER \*\* Insert required size and capacity.

* + - 1. Dock Leveler Width (Nominal): \_\_\_\_\_ inches.
      2. Dock Leveler Length (Nominal): \_\_\_\_\_inches.

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

* + - 1. Capacity (MH-30.1): 25,000 pounds (11,340 Kg).
      2. Capacity (MH-30.1): 30,000 pounds (13,600 Kg).
      3. Capacity (MH-30.1): 35,000 pounds (15,875 Kg).
      4. Capacity (MH-30.1): 40,000 pounds (18,140 Kg).

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

* + - 1. Lip Size: 16 inches (406 mm).
      2. Lip Size: 18 inches (457 mm).
      3. Lip Size: 20 inches (508 mm).

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

* + - 1. Lip Type: Standard.
      2. Lip Type: Reduced crown.
      3. Lip Type: Extended chamfer.

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

* + - 1. Bumpers: 4 inch (102 mm) 1014.
      2. Bumpers: 4 inch (102 mm) 2011.
      3. Bumpers: 6 inch (152 mm) 1014.

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

* + - 1. Weather Seals: Rubber.
      2. Weather Seals: Brush.
      3. Frame Design: Easy Clean.

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

* + - 1. Required Options:
         1. Rubber weather seal.
         2. Brush weather seal.
         3. V-112 bumpers.
         4. B-610-14 bumpers.
         5. Three-wheel support.
         6. 18-inches (457 mm) lip.
         7. 20-inches (508 mm) lip.
         8. 5-inches (127 mm) barrier lip (35,000+ pound units only).
         9. 24-inches (610 mm) riser kit (24-inches (610 mm) pit depth is standard on all 10-feet (3048 mm) long levelers).
         10. Wash down.
         11. 2-inches (51 mm) foam insulation.
         12. Auto-return to dock.
         13. E-stop/independent lip.
         14. NEMA 4 (Push-button box).
         15. Spray metalized.
         16. Control box stanchion.
         17. Cut down leveler length and width.
         18. Stainless steel pins and lip rods.
         19. Steel Pan: 4-sided.
         20. Quick Pit: 3-sided
      2. Structural: The platform is constructed of 1/4 inch thick four-way high tensile 50,000 minimum yield A572 safety tread plate. Platform is reinforced and supported by full length 6 inches (152 mm) high formed C channels welded to deck and front and rear header for firm structural support. Front and rear header plates are 1/2 inch thick by 7-inches (13 mm by 178 mm) high hot rolled steel. NOVA NHS series lips are four-way safety tread plate, the 25,000 pounds (11,339 Kg) Comparative Industry Rating (CIR) capacity is 1/2 inch (13 mm) thick, and the 30,000, 35,000 and 40,000 pounds CIR are 5/8 inch (16 mm) thick. The standard lip length is 16 inches (406 mm) on all capacities. Hinge tubes are 1-3/4 inches (44 mm) OD by 5/16 inch (8 mm) wall, 1-7/8 inches (48 mm) OD by 3/8 inch (9.5 mm) wall or 2-1/8 inches (54 mm) OD by 1/2 inch (13 mm) wall depending on CIR. All lip hinge pins are 1 inch (25 mm) diameter M1044 steel. Steel header gussets are standard on all models 35,000 pounds CIR and above. All units have grease fittings as standard. All platforms are designed to compensate for up to 4 inches (102 mm) of canted trailer bed.
      3. Operation: Push-button depressed and held activating the hydraulic system that lifts the deck from a stored position. When the deck reaches the fully elevated position, the lip cylinder is activated extending the lip assembly. Release push-button when the lip is fully extended and the deck descends to the trailer bed. Lip will rest on the trailer bed and the deck will float with the trailer (12 inches (305 mm) above/below dock operating range). If a trailer departs prior to storing the leveler the velocity fuse will limit the movement of the deck within 1 inch (25 mm) to 3 inches (76 mm). After loading/unloading is complete, the attendant depresses the push-button lifting the leveler from the trailer bed. The push-button is held until the lip falls pendant and then released allowing the leveler to rest in the lip keepers.
      4. Electrical: The hydraulic power unit motor is a 1.25 HP TENV at 120V or 208V single-phase or 208V, 230V, 460V, or 575V three-phase. The electrical control panel is NEMA 12 enclosure. All electrical components, connections and wiring are UL listed or recognized.
      5. Hydraulics: The platform is raised by a main hydraulic cylinder; all hydraulic hoses are routed under the leveler platform, away from debris. The ramp cylinder is a hard chrome-plated double acting design with a 3-inch (76 mm) bore and is equipped with a velocity safety stop to limit free fall of a loaded platform to 3 inches (76 mm). Motor pump is mounted up for easy access and to clear debris in pit and includes a translucent reservoir for monitoring fluid level.
      6. Safety Features: Heavy-duty regenerative hydraulic system powered by a 1.25 HP motor with a NEMA 4X control box. Equipped with velocity fuse stopping deck travel within 1 inch (25 mm) to 3 inches (76 mm). Lip is yieldable to accidental impact; integral maintenance strut, night locks, and safety marked full range toe guards.
      7. Recommended Safety Equipment: NOVA vehicle restraint systems help prevent unexpected trailer departure from the loading dock and minimize trailer creep during the loading/unloading process.
      8. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods:
         1. Structural Warranty (for levelers with rated capacity of <= 40,000 pounds CIR)for a period of five years from the date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the deck section, lip section, frame, rear hinge assembly and front hinge assembly only.
         2. Hydraulic Warranty (for levelers with rated capacity of <= 40,000 pounds CIR)for a period of five years from date of shipment, product will carry a prorated warranty. This warranty specifically applies to; the hydraulic pump and motor, all hydraulic cylinders, hydraulic pressure lines and fittings only.

\*\* NOTE TO SPECIFIER \*\* NOVA's NHS Series Premium Hydraulic Dock Levelers incorporate the use of hydraulics to raise and lower both the platform and lip. A single push-button activates a hydraulic pump for operating both the leveler platform and lip cylinders. Delete if not required.

* + 1. Dock Levelers: NHS Hydraulic Series (45,000 to 100,000) by Nova Technology with the following characteristics:

\*\* NOTE TO SPECIFIER \*\* Insert required size and capacity.

* + - 1. Dock Leveler Width (Nominal): \_\_\_\_\_ inches.
      2. Dock Leveler Length (Nominal): \_\_\_\_\_ inches.

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

* + - 1. Capacity (MH-30.1): 45,000 pounds (20,411 Kg).
      2. Capacity (MH-30.1): 55,000 pounds (24,950 Kg).
      3. Capacity (MH-30.1): 75,000 pounds (34,000 Kg).
      4. Capacity (MH-30.1): 100,000 pounds (45,360 Kg).

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

* + - 1. Lip Size: 16 inches (406 mm).
      2. Lip Size: 18 inches (457 mm).
      3. Lip Size: 20 inches (508 mm).

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

* + - 1. Lip Type: Standard.
      2. Lip Type: Reduced crown.
      3. Lip Type: Extended chamfer.

\*\* NOTE TO SPECIFIER \*\* 45,000 and 55,000 pound CIR units. Delete types not required.

* + - 1. Bumpers: Two 4 inches (102 mm) 1014.

\*\* NOTE TO SPECIFIER \*\* 75,000 and 100,000 pound CIR units. Delete types not required.

* + - 1. Bumpers: Two 6 inches (152 mm) 1014.
      2. Frame Design: Easy Clean.

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

* + - 1. Required Options:
         1. Rubber weather seal.
         2. Brush weather seal.
         3. 2-inches (51 mm) foam insulation.
         4. Three-wheel support.
         5. V-112 bumpers.
         6. B-610-14 bumpers (standard on 75,000 and 100,000 pound units).
         7. 18-inches lip (standard on 75,000 and 100,000 pound units).
         8. 20-inches (508 mm) lip.
         9. 5-inches (127 mm) barrier lip.
         10. 24-inches (610 mm) riser kit (24-inches (610 mm) pit depth is standard on all 10-feet (3048 mm) long levelers and 75,000 and 100,000 pound units).
         11. Wash down.
         12. Auto-return to dock.
         13. E-stop/independent lip.
         14. NEMA 4 (push-button box).
         15. Spray metalized.
         16. Control box stanchion.
         17. Cut down leveler length or width.
         18. Stainless steel pins and lip rods.
         19. Steel pan: 4-sided.
         20. Quick pit: 3-sided.
      2. Structural: The platform is constructed of 1/4 inch (6 mm) thick four-way high tensile 50,000 minimum yield A572 safety tread plate for 45,000, 55,000 and 75,000 pound Comparative Industry Rating (CIR) capacity units. The 100,000 pound CIR unit is 3/8 inch (9.5 mm) thick safety tread plate of same specification. Platforms are reinforced and supported by full length 6 inches (152 mm) high structural channels for 45,000 pound CIR, 6 inches (152 mm) structural channel and I-beam for 55,000 pound CIR and 8 inches (203 mm) structural channel and I-beam for 75,000 and 100,000 pound CIR unitswelded to the deck and front and rear header for firm structural support. Front and rear header plates are 1/2 inch thick by 7 inches (13 mm by 178 mm) high hot rolled steel for the 45,000 pound and 55,000 pound CIR units and 8 inches (203 mm) high for the 75,000 pound and 100,000 pound CIR units. NHS series lips are four-way safety tread plate. The 45,000 pound and 55,000 pound CIR are 5/8 inch (16 mm) thick, the 75,000 CIR unit is 3/4 inch (19 mm) thick and the 100,000 pound CIR is 1 inch (25 mm) thick. The standard lip length is 16 inches (406 mm) on the 45,000 pound and 55,000 pound CIR capacities and 18 inches (457 mm) on the 75,000 pound and 100,000 pound CIR capacities. Hinge tubes are 2-1/8 inches OD by 1/2 inch (54 mm by 13 mm) wall, 2-5/8 inches OD by 3/4 inch (67 mm by 19 mm) wall or 3-1/8 inches OD by 1 inch (79 mm by 25 mm) wall depending on CIR. All lip hinge pins are 1 inch (25 mm) diameter M1044 steel. Steel header gussets are standard on all NHS Series models. All units have grease fittings as standard. All platforms are designed to compensate for up to 4 inches (102 mm) of canted trailer bed.
      3. Operation: Push-button depressed and held activating the hydraulic system that lifts the deck from a stored position. When the deck reaches the fully elevated position, the lip cylinder is activated extending the lip assembly. Releasing push-button when the lip is fully extended and the deck descends to the trailer bed. Lip will rest on the trailer bed and the deck will float with the trailer 12 inches (305 mm) above/below dock operating range. If a trailer departs prior to storing the leveler the velocity fuse will limit the movement of the deck within 1 inch (25 mm) to 3 inches (76 mm). After loading/unloading is complete, the attendant depresses the push-button lifting the leveler from the trailer bed. The push-button is held until the lip falls pendant and then released allowing the leveler to rest in the lip keepers.
      4. Electrical: The hydraulic power unit motor is a 1.25 HP TENV at 120V or 208V single-phase or 208V, 230V, 460V, or 575V three-phase. The electrical control panel is NEMA 12 enclosure. All electrical components, connections and wiring are UL listed or recognized.
      5. Hydraulics: The platform is raised by a main hydraulic cylinder; all hydraulic hoses are routed under the leveler platform, away from debris. The ramp cylinder is a hard chrome-plated double acting design with a 3-inch (76 mm) bore for 45,000 pound and 55,000 pound CIR units, a 4-inch (102 mm) bore for 75,000 CIR units, and two 4-inch (102 mm) bore cylinders for the 100,000 CIR units. The main cylinder is equipped with a velocity safety stop to limit free fall of a loaded platform to 3 inches (76 mm). Lip operation is controlled by a hard chrome plated cylinder having a 2-inch (51 mm) bore and is fully yieldable. The motor pump is mounted up for easy access and to clear debris in pit and includes a translucent reservoir for monitoring fluid level.
      6. Safety Features: Heavy-duty regenerative hydraulic system powered by a 1.25 HP motor with a NEMA 4X control box. Equipped with velocity fuse stopping deck travel within 1 inch (25 mm) to 3 inches (76 mm). Lip is yieldable to accidental impact; integral maintenance strut, night locks, and safety marked full range toe guards.
      7. Recommended Safety Equipment: NOVA vehicle restraint systems help prevent unexpected trailer departure from the loading dock and minimize trailer creep during the loading/unloading process.
      8. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods:
         1. Structural Warranty (for levelers with rated capacity of >= 45,000 pounds CIRfor a period of five years from the date of shipment, this warranty specifically applies to; the deck section, lip section, frame, rear hinge assembly and front hinge assembly only.
         2. Hydraulic Warranty (for levelers with rated capacity of >= 45,000 pounds CIR)for a period of five years from the date of shipment, this warranty specifically applies to; the hydraulic pump and motor, all hydraulic cylinders, hydraulic pressure lines and fittings only.

\*\* NOTE TO SPECIFIER \*\* NOVA's NAS Series Premium Air Powered Dock Levelers incorporate the use of a low pressure, high volume air system to raise and lower the platform. A single push-button activates the air power system to raise the leveler and extend the lip. Delete article if not required.

* 1. AIR POWERED DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* NOVA's NAS Series Premium Air Powered Dock Leveler is designed to provide excellent reliability and structural durability at an affordable price. Easy-push button activation allowing smooth, consistent operation with a reliable air power system makes this full featured leveler a true value. Delete if not required.

* + 1. Dock Levelers: NAS Air Powered Series by Nova Technology with the following characteristics.

\*\* NOTE TO SPECIFIER \*\* Insert required size and capacity.

* + - 1. Dock Leveler Width (Nominal): \_\_\_\_\_ inches.
      2. Dock Leveler Length (Nominal): \_\_\_\_\_ inches.

\*\* NOTE TO SPECIFIER: Delete capacity not required.

* + - 1. Capacity (MH-30.1): 25,000 pounds (11,340 Kg).
      2. Capacity (MH-30.1): 30,000 pounds (13,600 Kg).
      3. Capacity (MH-30.1): 35,000 pounds (15,875 Kg).
      4. Capacity (MH-30.1): 40,000 pounds (18,140 Kg).
      5. Capacity (MH-30.1): 45,000 pounds (20,400 Kg).
      6. Capacity (MH-30.1): 55,000 pounds (25,000 Kg).

\*\* NOTE TO SPECIFIER\*\* Delete sizes not required. 16 inch (406 mm) is standard.

* + - 1. Lip Size: 16 inches (406 mm).
      2. Lip Size: 18 inches (457 mm).
      3. Lip Size: 20 inches (508 mm).

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

* + - 1. Bumpers: 4 inch (102 mm) 1213 molded.
      2. Bumpers: 4 inch (102 mm) 1014 laminated (standard).
      3. Bumpers: 4 inch (102 mm) 2011 laminated (vertical).
      4. Bumpers: 4 inch (102 mm) 2411 laminated (vertical).
      5. Bumpers: 6 inch (152 mm).
      6. Frame Design: Easy Clean.

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

* + - 1. Options:
         1. Rubber weather seal.
         2. Brush weather seal.
         3. Three-wheel support (25,000 to 40,000 pound units).
         4. 5 inches (127 mm) barrier lip; 8 ft (2438 mm) or longer only 35,000+ lbs units.
         5. 24 inch (610 mm) riser kit. 24 inch (610 mm) pit depth is standard on all 10 ft (3048 mm) long levelers.
         6. Wash down.
         7. 2 inch (51 mm) thick foam insulation.
         8. Spray metalized.
         9. Control box stanchion.
         10. Cut down leveler length and width.
         11. Stainless steel pins and lip rods.
         12. Steel pan: 4-sided.
         13. Quick pit: 3-sided.
      2. Structural:
         1. Platform: 1/4 inch (6 mm) thick four-way high tensile 50,000 minimum yield A572 safety tread plate. Designed to compensate for 4 inches (203 mm) of canted trailer bed.

25,000 to 40,000 lbs CIR Units: Reinforced by full length 6 inch (152 mm) high, formed C channels. Welded to deck for structural support.

45,000 lbs CIR Units: Reinforced by full length 6 inch (152 mm) height structural channel. Welded to deck for structural support.

55,000 lbs CIR Units: Reinforced by full length 6 inches (152 mm) high structural channel and I-beams. Welded to deck for structural support.

Front and Rear Header Plates: 1/2 inch (13 mm) thick by 7 inch (178 mm) high hot-rolled steel.

NOVA's NAS Series Lips: Four-way safety tread plate.

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

30,000, 35,000, 40,000, 45,000 and 55,000 lbs CIR: 5/8 inch (16 mm) thick.

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

Hinge Tubes: 1-3/4 inch OD by 5/16 inch (44 mm by 8 mm) wall,

Hinge Tubes: 1-7/8 inch OD by 3/8 inch (48 mm by 9.5 mm) wall

Hinge Tubes: 2-1/8 inches OD by 1/2 inch (54 mm by 13 mm) wall

Lip Hinge Pins: 1 inch (25 mm) diameter M1044 steel.

Steel Header Gussets: Standard on models 35,000 lbs CIR and above.

Grease fittings.

* + - 1. Operation:
         1. Push-Button Depressed and Held: Allows electric blower to fill air bladder raising the platform.
         2. When fully yieldable lip extends at top of cycle, release the button allowing extended lip and platform to lower onto trailer bed.
         3. Upon Trailer Departure: Lip can be retracted and unit restored to a safe cross-traffic position.
         4. In-Use and Stored Positions: Achieved without manual operation.
         5. Operable Range: 12 inches (305 mm) above/below dock level.
         6. The platform services out of level trailers with up to 4 inches (102 mm) of flex and remains flush with dock floor.
         7. Platform allowed to automatically float up and down with trailer movement.
      2. Safety Features:
         1. Retractable Cross-Traffic Legs: Solid steel bars. Multi-position safety at dock level and below.
         2. Self-Contained Lip Extension: Yields under impact from incoming trailer.
         3. Built-in Maintenance Strut: Lockout / tagout compliant night lock security.
         4. Full-Range Telescoping Toe Guards: Close off sides in all positions.
      3. Recommended Safety Equipment:
         1. NOVA Truck Lock and Lock and Load Vehicle Restraint Systems: Prevent unexpected trailer departure from loading dock and minimize trailer creep during loading and unloading.
      4. Electrical
         1. Blower Motor: 115 V single phase, 1400 watt drawing 11 amps at startup.
         2. Control Panel: Non-metallic NEMA 4 enclosure.
         3. UL Listed or Recognized: All Components, connections and wiring.
      5. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods:
         1. Structural Warranty: For a period of five years from the date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the deck section, lip section, frame, rear hinge assembly and front hinge assembly only. This warranty covers structural repairs to or replacement of dock leveler in NOVA Technology sole discretion and expense including reasonable labor, materials, freight and travel. If NOVA Technology determines replacement is necessary, it will provide the original purchaser with a credit toward the purchase of the new replacement NOVA Technology product in the amount equal to the original purchase price of the warranted product F.O.B. point of manufacture, discounted on a ten year straight line basis by the number of years of use prior to replacement.
         2. Pneumatic Warranty: For a period of four years from the expiration of the Standard Product Warranty, NOVA Technology will provide replacement component parts from defective lifting system. This warranty specifically covers material and freight only and applies to; the air bladder, seals, hoses and motor assembly.

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

* 1. MECHANICAL DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* NOVA's Premium Mechanical Dock Levelers incorporate the use of mechanical components to raise and lower both the platform and lip without providing power to the dock leveler. The levelers are available in a wide variety of sizes ad capacities with a standard operating range of 12 inches (305 mm) above and below dock. Delete if not required.

* + 1. Dock Levelers: NMS Mechanical Series by Nova Technology with the following characteristics:

\*\* NOTE TO SPECIFIER \*\* Insert required size and capacity.

* + - 1. Dock Leveler Width (Nominal): \_\_\_\_\_ inches.
      2. Dock Leveler Length (Nominal): \_\_\_\_\_ inches.

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

* + - 1. Capacity (MH-30.1): 25,000 pounds (11,340 Kg).
      2. Capacity (MH-30.1): 30,000 pounds (13,600 Kg).
      3. Capacity (MH-30.1): 35,000 pounds (15,875 Kg).
      4. Capacity (MH-30.1): 40,000 pounds (18,140 Kg).
      5. Capacity (MH-30.1): 45,000 pounds (20,400 Kg).
      6. Capacity (MH-30.1): 55,000 pounds (25,000 Kg).

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

* + - 1. Lip Size: 16 inches (406 mm).
      2. Lip Size: 18 inches (457 mm).
      3. Lip Size: 20 inches (508 mm).

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

* + - 1. Lip Type: Standard.
      2. Lip Type: Reduced crown.
      3. Lip Type: Extended chamfer.

\*\* NOTE TO SPECIFIER \*\* Fill in blank below with bumper size. Delete bumpers not required.

* + - 1. Bumpers:\_\_\_\_\_\_\_\_\_\_.
      2. Bumpers: 4 inch (102 mm) 1014.
      3. Bumpers: 4 inch (102 mm) 2011.
      4. Bumpers: 6 inch (152 mm) 1014.

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

* + - 1. Toe Guards: Working range.
      2. Toe Guards: Full range.

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

* + - 1. Required Options:
         1. Rubber weather seal.
         2. Brush weather seal.
         3. V-112 bumpers.
         4. B-610-14 bumpers.
         5. Three-wheel support (25,000 to 40,000 pound units).
         6. 24-inches (610 mm) riser kit (24-inches (610 mm) pit depth is standard on all 10-feet (3048 mm) long levelers).
         7. Frame Design: Easy Clean.
         8. Wash down.
         9. 2-inches (51 mm) foam insulation.
         10. Spray metalized.
         11. Cut down leveler length and width.
         12. Stainless steel pins and lip rods.
         13. Steel pan: 4-sided.
         14. Quick pit: 3-sided.
      2. Structural: The platform is constructed of 1/4 inch (6 mm) thick four-way high tensile 50,000 minimum yield A572 safety tread plate. Platforms are reinforced and supported by full length 6-inches (152 mm) high-formed C channels for 25,000 pound Comparative Industry Rating (CIR) capacity to 40,000 pound CIR units, full length 6 inches (152 mm) high structural channel for 45,000 pound CIR units and full length 6 inches (152 mm) high structural channel and I-beams for 55,000 pound CIR units, all welded to the deck for firm structural support. Front and rear header plates are 1/2-inch (13 mm) thick by 7-inches (178 mm) high hot-rolled steel. NOVA's NMS series lips are four-way safety tread plate, the 25,000 pound CIR is 1/2 inch (13 mm) thick and the 30,000, 35,000, 40,000, 45,000 and 55,000 pound CIR are 5/8 inch (16 mm) thick. The standard lip length is 16 inches (406 mm) on all capacities. Hinge tubes are 1-3/4 inches OD by 5/16 inch (44 mm by 8 mm) wall, 1-7/8 inch OD by 3/8 inch (48 mm by 9.5 mm) wall or 2-1/8 inches OD by 1/2 inch (54 mm by 13 mm) wall depending on CIR. All lip hinge pins are 1 inch (25 mm) diameter M1044 steel. Steel header gussets are standard on all models 35,000 pounds CIR and above. All units have grease fittings as standard. All platforms are designed to compensate for up to 4 inches (102 mm) of canted trailer bed.
      3. Operation: The dock attendant pulls the release chain which releases the holdown and allows the leveler to rise and the lip extend. The attendant then walks onto the leveler to lower the leveler and lip to the bed of the truck or trailer. Contact between the leveler lip and the truck or trailer bed is maintained throughout the loading/unloading process by the holdown. If below dock operation is required, the front pull chain is pulled which retracts the safety legs and the leveler will lower to the desired position when walking down the leveler. When loading or unloading is complete, the release chain is pulled to raise the leveler and lip off the bed of the truck or trailer. Once the lip has fallen pendant, the attendant walks onto the leveler to lower it to the stored position.
      4. Safety Features: Equipped with multi-position structural safety legs. Lip is yieldable to accidental impact. Also included are an integral maintenance strut, night locks, and safety marked working range toe guards.
      5. Recommended Safety Equipment: NOVA vehicle restraint systems help prevent unexpected trailer departure from the loading dock and minimize trailer creep during the loading/unloading process.
      6. Equipped with an automatic-release holdown.
      7. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended period.
         1. Structural Warrantyfor a period of five years from the date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the deck section, lip section, frame, rear hinge assembly and front hinge assembly only. This warranty covers structural repairs to or replacement of dock leveler in NOVA Technology sole discretion and expense including reasonable labor, materials, freight and travel. If NOVA Technology determines replacement is necessary, it will provide the original purchaser with a credit toward the purchase of the new replacement NOVA Technology product in the amount equal to the original purchase price of the warranted product F.O.B. point of manufacture, discounted on a five year straight line basis by the number of years of use prior to replacement.

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

* 1. HYDRAULIC EDGE-OF-DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* NOVA's Hydraulic Edge-of-Dock Levelers mount to the exterior dock face providing a simple and economical alternative to pit-style levelers. Delete capacity not required.

* + 1. Dock Levelers: Edge-of-Dock Hydraulic Leveler by Nova Technology with the following characteristics:
       1. Type: Hydraulic.

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

* + - 1. Capacity: 20,000 pounds (9071 Kg).
      2. Capacity: 25,000 pounds (11340 Kg).
      3. Capacity: 30,000 pounds (13608 Kg).
      4. Capacity: 35,000 pounds (15875 Kg).

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

* + - 1. Width: 66 inches (1676 mm).
      2. Width: 72 inches (1829 mm).
      3. Width: 78 inches (1981 mm).
      4. Width: 84 inches (2134 mm).
      5. Operation:
         1. A single push-button is pressed and held until the leveler is fully extended.
         2. Releasing button lowers leveler to trailer bed.
         3. After loading or unloading: Push-button is pressed and held until the lip clears the trailer bed. Once released, the leveler returns to the stored position.
         4. If trailer departs before leveler is stored, the leveler returns to stored position.
      6. Structural:
         1. Platform and lip: Four-way high tensile 55,000 psi (379,000 kPa) minimum yield A572 safety tread plate.

20,000 and 25,000 lbs CIR units: 3/8 inch (9.5 mm) thick,

30,000 lbs CIR unit: 7/16 inch (11 mm) thick

35,000 lbs CIR unit: 1/2 inch (13 mm) thick.

* + - * 1. Standard Lip Length: 15 inch (381 mm) on all edge-of-dock levelers.
        2. Lip hinge pins: solid shaft cold finish M1044 steel.

20,000, 25,000 and 30,000 lbs CIR units: 11/16 inches (17 mm)

35,000 pound CIR units: 1 inch (25 mm).

* + - * 1. Full width 1/2 inch (13 mm) load distribution bar, connecting hinge and lip sections.
        2. Deck is supported in stored position by four or more steel gussets attached to base plate.
        3. Hinge Tubes:

20,000, 25,000 and 30,000 lbs CIR Units: 1-1/4 inches (32 mm) OD.

35,000 lbs CIR units: 1-1/2 inches (38 mm) OD.

* + - * 1. Lip hinge pins: solid shaft cold finish M1044 steel.

20,000, 25,000 and 30,000 lbs CIR units: 11/16 inches (17 mm)

35,000 pound CIR units: 1 inch (25 mm).

* + - * 1. Full width load 1/2 inch (13 mm) distribution bar, meeting the hinge and lip sections. Deck is supported in stored position by a minimum of two steel gussets attached to the base plate.
      1. Grease fittings.
      2. Milled lip edge for smooth tire rollover.
      3. Projections: Total projection of bumper blocks and bumpers is 18 inches (457 mm).
      4. Hydraulics: The platform is raised by a main hydraulic cylinder. All hydraulic hoses are safely routed under platform. Platform and Lip operation is controlled by a second lip cylinder. The motor pump is mounted under the leveler on brackets for easy access and includes a translucent reservoir for monitoring fluid level.
      5. Electrical: The hydraulic power unit motor is a 1.25 HP TENV at 115V or 230V single-phase or 208V, 230V or 460V three-phase. All electrical components, connections and wiring are UL listed or recognized.
         1. Single push-button control panel.
      6. Bumpers: Extra-heavy-duty 4 inch 1014 constructed of formed steel and incorporates a full height internal gusset for extra support, with 18 inches of total bumper projection. All bumper blocks feature 4-inch thick Tuf-Cord rubber bumper.
      7. Finish: Unit is completely cleaned, deburred and painted gray.
      8. Service Range: Capable of servicing trucks 5 inches (127 mm) above and 5 inches (127 mm) below the dock.

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

* + - 1. Options:
         1. 17 inches (432 mm) lip for refrigerated trailers with rear step.
         2. Low-profile design (flat center plate).
         3. Tapered lip (tapered at sides).
         4. IntelliDock Combination control box.
         5. EOD angles and transition plates.
         6. Recessed installation packages for mini-pits.
         7. Torsion spring.
         8. Dock-edge anchoring channel 10 inch length (highly recommended for new construction).
         9. Three-phase powerpack.
         10. 3-inches (76 mm) run off guards.
      2. Warranty: 1 year parts and labor warranty on structural and hydraulics components.

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

* 1. MECHANICAL EDGE-OF-DOCK LEVELERS

\*\* NOTE TO SPECIFIER \*\* NOVA's Mechanical Edge-of-Dock Levelers mount to the exterior dock face providing a simple and economical alternative to pit-style levelers. Delete capacity not required.

* + 1. Dock Levelers: Edge-of-Dock Mechanical Leveler by Nova Technology with the following characteristics:

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

* + - 1. Type: Barrel spring.
      2. Type: Torsion spring.

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

* + - 1. Capacity: 20,000 pounds (9071 Kg).
      2. Capacity: 25,000 pounds (11340 Kg).
      3. Capacity: 30,000 pounds (13608 Kg).
      4. Capacity: 35,000 pounds (15875 Kg).

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

* + - 1. Width: 66 inches (1676 mm).
      2. Width: 72 inches (1829 mm).
      3. Width: 78 inches (1981 mm).
      4. Operation:
         1. Pull operating handle to raise the center plate back past vertical, engaging the lip extend link arm.
         2. Pushing operating handle forward then extends lip plate over and onto the trailer bed, after which the handle is returned to the stored position.
         3. Once loading/unloading is complete, pull the operating handle until the lip clears the bed of the trailer and returns handle to stored position which also stores the leveler.
         4. If trailer departs before leveler is stored, leveler automatically returns to stored position.
      5. Structural:
         1. Platform and Lip: Four-way high tensile 55,000 psi (379,000 kPa) minimum yield A572 safety tread plate.

20,000 and 25,000 lbs CIR units: 3/8 inch (9.5 mm) thick,

30,000 lbs CIR unit: 7/16 inch (11 mm) thick

35,000 lbs CIR unit: 1/2 inch (13 mm) thick.

* + - * 1. Standard Lip Length: 15 inch (381 mm) on all edge-of-dock levelers.
        2. Lip hinge pins: solid shaft cold finish M1044 steel.

20,000, 25,000 and 30,000 lbs CIR units: 11/16 inches (17 mm)

35,000 pound CIR units: 1 inch (25 mm).

* + - * 1. Full width 1/2 inch (13 mm) load distribution bar, connecting hinge and lip sections.
        2. Deck is supported in stored position by four or more steel gussets attached to base plate.
      1. Projections: Total projection of bumper blocks and bumpers is 15 inches (381 mm).
      2. Bumpers: 4 inch (102 mm) 1014 rubber molded bumpers. Heavy-duty bumper block assemblies with Tuf-Cord.
      3. Dual-extension spring lift mechanism.
      4. Heavy-duty self-storing steel lever with EZ grip handle.
      5. Roller-bearing lift mechanism for easy lifting.
      6. Milled lip edge for smooth tire rollover.
      7. Grease fittings.
      8. Finish: Leveler to be painted machinery gray with orange bumper blocks.
      9. Steel lever and ball-tipped lifting mechanism is in conjunction with roller bearings and dual extension springs.
      10. Service Range: Capable of servicing trucks 5 inches (127 mm) above and 5 inches (127 mm) below the dock.

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

* + - 1. Options:
         1. Low-profile design (flat center plate).
         2. 17 inch (432 mm) lip for refrigerated trailers with rear step.
         3. Tapered lip (tapered at sides).
         4. Recessed installation packages for mini-pits.
         5. Torsion spring.
         6. Edge-of-Dock embedded channel 10 inch (254 mm) height. Highly recommended or new construction.
         7. Edge-of-Dock angles and transition plates.
         8. 3-inches (76 mm) run off guards.
      2. Warranty: NOVA Technology warrants that its products will be free from defects in design, materials and workmanship for a period of one year from the date of shipment.

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

* 1. VEHICLE RESTRAINTS

\*\* NOTE TO SPECIFIER \*\* The NOVA Truck Lock vehicle restraint keeps dock operations safe and secure during loading and unloading. Trucks and trailers are held firmly in place by a high-visibility barrier-style ram bar which can withstand a pullout force of over 30,000 pounds to prevent accidental separation from the loading dock during the cargo handling process. Delete if not required.

* + 1. Vehicle Restraints: Truck Lock as manufactured by Nova Technology with the following characteristics:

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

* + - 1. Stored Height: 10 inches (350 Series).
      2. Stored Height: 7-1/2 inches (Low-Profile Series).

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

* + - 1. Operation: Pneumatic.
      2. Operation: Mechanical.

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

* + - 1. Light Communication: Automatic.
      2. Light Communication: Manual.

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

* + - 1. Installation Style: Bolt-In (Flange) style.
      2. Installation Style: Cast-In style
      3. Communication System:
         1. Outside: Constant flashing red or green LED lights with signs.
         2. Inside: Constant flashing red or green LED lights with signs.
         3. Audible Alarm: In addition to the flashing red light, inside alarm warns when RIG has not been property engaged.
         4. Audible Alarm Override: a push-button allows personnel to override the audible alarm. When the audible alarm is in override, the inside red and green lights continue to flash simultaneously.
         5. LED lights: Standard LED lights.

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

* + - 1. Required Options:
         1. Compressor.
         2. Wall bracket.
         3. Truck sensor.
         4. Interconnect with leveler or door.
         5. Interlock with leveler or door.
         6. Open dock stanchion.
         7. Metal building bracket.
         8. Asphalt kit for asphalt or non-concrete approach applications (Cast-In style housing only).
         9. Swivel brackets for unique cable configurations.
      2. Structural: The housing is constructed from ASTM A500 Grade B rectangular steel tubing, 6 by 3 by 1/4 inches (152 mm by 76 mm by 6 mm) thick, capped with ram sheath cast of 55,000 psi (379,000 kPa) minimum yield strength steel and fully welded to the housing tube. Half-inch thick truck side gussets composed of 36,000 psi (248,000 kPa) minimum yield steel is welded to and reinforces the housing tube and ram sheath. The ram bar vertical barrier is made from 4-5/16 inches wide by 1 inch (110 mm by 25 mm) thick ASTM A-514 Grade B plate with a minimum yield strength of 100,000 psi (689,500 kPa).

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

* + - * 1. Cast-In-Place Installation: The housing is embedded into the approach 21 inches with 4,000 psi minimum concrete.
        2. Bolt-In (Flange) Installation: The housing is embedded into the approach with seven 5/8 inch by 5 inches (16 mm by 127 mm) long, heavy duty hex head anchor screws. The housing and gussets are welded to a 25 inches long by 16 inches (635 mm by 406 mm) wide, tapering to 9-1/4 inches wide by 3/8 inch (235 mm by 9.5 mm) thick base plate of 36,000 psi (248,000 kPa) minimum yield strength steel.
      1. Electrical: The control box comes with a 6-foot power cord factory installed. The drop cord can be plugged into any 120VAC 60Hz outlet and only draws 0.5 amps. All components are UL listed or recognized for industrial use. All LED lights (interior and exterior) operate on a 12V circuit.
      2. Operation: After the truck/trailer backs into position against the dock bumpers, switch Truck Lock to the RESTRAIN position activating the restraint. Outside light turns red and inside light turns green. When loading/unloading is completed, switch Truck Lock to the RELEASE position deactivating the restraint and lowering the Ram Bar. Outside light turns green and inside light turns red.
      3. Activation System: Restraint activated by turning a switch or moving a slide bar on the control console to the RESTRAIN position. Ram bar raised by a high strength nylon coated stainless steel aircraft grade cable and guided over heavy duty pulleys with shielded bearings. Switch controls a pneumatic cylinder that actuates the cable and is located inside the building within a powder coated steel enclosure. Mechanical version uses a slide bar located inside the building within a powder coated steel enclosure to activate the cable. The powered system requires air be supplied from plant system or by small compressor. Air must be minimum of 80 psi and maximum of 130 psi. Air must be dry and clean. Air usage is approximately 0.015 cubic feet per operation. Duration of normal power stroke is about two seconds.
      4. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods:
         1. Extended Two-Year General Warrantyfor a period of two years from date of shipment, this warranty specifically applies to; the ram housing assembly, console assembly, pulleys and brackets and control box only.
         2. Extended Ten-Year Structural Warrantyfor a period of ten years from date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the ram bar, ram housing, housing cover and console cover only.

\*\* NOTE TO SPECIFIER \*\* The NOVA Lock & Load Vehicle Restraint is a hook-style vehicle restraint that secures the trailer's rear impact guard (RIG) at the dock to reduce the risk of premature departure and trailer movement during loading and unloading. Its spring-loaded housing lowers with truck contact, positions the unit with the RIG bar and automatically adjusts to trailer float. The Lock & Load has an enhanced design with a patented Triple Range Hook that outperforms competitor hook-style restraints. The roller slope extension decreases the resistance of carriage travel while it adjusts to the height of the RIG and features a wheel that effortlessly rolls over the pavement to prevent marks/gouges on the dock approach pavement. Delete if not required.

* + 1. Vehicle Restraints: Lock and Load Vehicle Restraint with Roller Slope Extension as manufactured by Nova Technology. Restraint has an engagement range of 9 to 31 inches (220 to 787 mm) and mounts to dock face above ground level to stay clear of accumulated precipitation and debris. Elevated installation protects it from the elements, along with watertight connectors and zinc plating for added corrosion resistance.
       1. Operation:
          1. As the trailer backs into position: RIG contacts the spring loaded structural steel housing which rides down in its track, allowing the RIG to move over the top of the housing.
          2. Pushing RESTRAIN button: Activates hook to secure trailer to dock,

Hook can withstand a pullout force in excess of 38,000 pounds (169 kN).

* + - * 1. Restraint maintains contact with the RIG and adjusts automatically with trailer float motion to ensure proper engagement at all times.
        2. After servicing is complete: Push RELEASE button.
        3. In event a trailer's RIG is missing or damaged: Restraint will communicate a fault condition.

An audible alarm and flashing red light alerts the operator that the trailer has not been properly secured.

The operator may then override the fault condition and secure the trailer by other means.

* + - * 1. The communication system automatically adjusts to reflect the current operational mode.
      1. Features:
         1. Motor: IP67 compliant.
         2. Gear Motor: One-way braking system that keeps hook continuously engaged for added safety.

Multiple power train components to distribute stress and optimize velocities.

Only uses electricity when engaging or disengaging hook with the RIG.

Will not disengage during power failures.

Operates less than three seconds for full cycle of restraining and releasing a vehicle.

* + - * 1. Roller slope extension effortlessly rolls on pavement.
        2. PLC-based control box provides maintenance diagnostics.
      1. Structural:
         1. Rotating Hook: Withstands a pull-away force of over 38,000 lbs (169 kN).

Machined from 1-1/4 inch (32 mm) thick A514 Grade B steel plate and driven with a 1-1/4 inch (32 mm) diameter shaft made from cold-rolled 1008 steel.

* + - * 1. Carriage Sideplates: Abrasion-resistant 200F steel for maximum defense against wear from contact and friction with the RIG.
        2. Carriage Axles: 1-1/4 inch (32 mm) diameter cold-rolled 1045 steel
        3. Roller: 2-5/16 inch (59 mm) diameter cold-rolled 1045 steel.
        4. Roller Track: ASTM A572 Grade 50 steel, 6-3/8 x 3 inch (162 x 76 mm) channel with 7/8 inch (22 mm) flanges. Attached to dock face with 15 heavy-duty sleeve anchors each measuring 5/8 x 4 inch (16 x 102 mm) long.
      1. Electrical/Controls:
         1. Operator Controls: Mounted in control panel that always remains operational.
         2. Specially engineered electric motor and limit switches are enclosed in a structural steel housing.
         3. UL Listed or Recognized: All electrical components and wiring are.
         4. Power Source: 110/115 volt single-phase with 15 amp service circuit.
      2. Communication System:
         1. Outside Signal Lights: Constant flashing red or green LED lights with signs instruct truck driver when it is safe to back into or pull away from loading dock.
         2. Control Box LED Signal Lights: Constant flashing red or green LED lights with signs inform dock attendant when it is safe to perform loading or unloading.
         3. Audible Alarm: In addition to flashing red light, interior alarm warns dock attendant when a RIG has not been properly engaged.
         4. Horn Override: Customizable keypad allows personnel to override audible alarm using a programmable password. When audible alarm is in override, the inside red and green lights continue to flash simultaneously while outside light flashes red and the audible alarm is silenced.
         5. LED Lights: Standard LED lights.

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

* + - 1. Options:
         1. IntelliDock Combination control box.
         2. Open dock stanchion for control box.
         3. Articulated slope extension.
         4. Brackets and plates.
         5. Green light interlock with leveler or door.
      2. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods:
         1. Extended Two-Year General Warranty: For a period of two years from date of shipment, this warranty specifically applies to; the roller track assembly, carriage assembly and control box only.
         2. Extended Five-Year Structural Warranty: For a period of five years from date of shipment, product will carry a prorated structural warranty; this warranty specifically applies to; the roller track, carriage weldment, chain cover, straight hook and lower spring bar only.

\*\* NOTE TO SPECIFIER \*\* The patented NOVA Lock-Up™ Vehicle Restraint is designed to secure an intermodal container chassis, standard trailer and most RIG bar configurations, even styles that have cover plates or obstructions. Its spring-loaded housing lowers with truck contact, positions the unit with the RIG bar and automatically adjusts to trailer float. The Roller Slope Extension decreases resistance of carriage travel while it is adjusting to the height of the RIG bar and features a wheel assembly that effortlessly rolls over the pavement to prevent marks/gouges on the dock approach pavement. Delete if not required.

* + 1. Vehicle Restraints: Lock-Up Vehicle Restraint as manufactured by Nova Technology. ANSI MH30.3 tested and certified. Engagement Range: 9 to 31 inches (220 to 787 mm) and mounts to dock wall above ground level to stay clear of accumulated precipitation and debris. Elevated installation protects it from the elements, along with watertight connectors. Zinc plated for added corrosion resistance.
       1. Operation:
          1. As the trailer backs into position: The RIG contacts the spring loaded structural steel housing which rides down in its track, allowing the RIG to move over the top of the housing.
          2. Pushing RESTRAIN Button: Activates the vertical barrier to secure the trailer to the dock.

The vertical barrier can withstand a pullout force in excess of 38,000 lbs (169 kN).

* + - * 1. The Lock-Up restraint maintains contact with the RIG and adjusts automatically with trailer float motion to ensure proper engagement at all times.

If there is a cover plate or obstruction above the rear impact guard, the vertical barrier adds an additional level of safety providing secure engagement.

* + - * 1. An activation system ensures RIG/barrier engagement when electrical power source is lost.
        2. After Servicing is Complete: Push the RELEASE button.
        3. In event a trailer's RIG is missing or damaged: The Lock-Up will communicate a fault condition. An audible alarm and flashing red light alerts operator that the trailer has not been properly secured.

The operator may then override the fault condition and secure the trailer by other means.

The communication system automatically adjusts to reflect the current operational mode.

* + - 1. Features:
         1. Gear Motor: Only uses electricity when engaging or disengaging the vertical barrier with the RIG. Will not disengage during power failures.

Utilizes multiple power train components to distribute stress and optimize velocities, maximizing long term durability

Operates less than three seconds for full cycle of restraining and releasing a vehicle.

* + - * 1. Barrier Lifting Mechanism: Engages an over-center device which maintains the barrier in engaged (raised) position in event of power failure, shaking, or normal movements of a vertically oscillating trailer with a forklift entering and exiting.
        2. Roller slope extension effortlessly rolls on pavement.
        3. Control Box: Discrete components for ease of service. Includes key switch for override.
        4. LED lights are standard.
      1. Structural:
         1. Vertical barrier weldment: Withstands pull-away force of over 38,000 lbs (169 kN).

Lamination of two 2-3/4 x 3/4 inch (70 x 19 mm) thick ASTM A572 Grade 50 steel plates with 1 inch (25 mm) ASTM A36 steel spacers in between.

Located within carriage between the two side plates.

* + - * 1. Carriage side plates: Abrasion-resistant 200F steel for maximum defense against wear from contact and friction with the RIG.
        2. Carriage Axles: 1-1/4 (32 mm) inch diameter cold-rolled 1045 steel.
        3. Rollers: 2-5/16 inch (59 mm) diameter cold-rolled 1045 steel.
        4. Roller Track: ASTM A572 Grade 50 steel. 6-3/8 x 3 inch (162 x 76 mm) channel with 7/8 inch (22 mm) flanges. Attaches to dock face with 15 heavy-duty sleeve anchors each measuring 5/8 x 4 inch (16 x 102 mm) long.
      1. Electrical:
         1. Operator Controls: Mounted in control panel that remains fully operational at all times.
         2. Specially engineered electric motor and limit switches are enclosed in an abrasion resistant structural steel housing.
         3. UL listed or Recognized: All electrical components and wiring.
         4. Power Source: 110/115 volt, single-phase with a 15 amp service circuit
      2. Communication System:
         1. Outside Signal Lights: Constant flashing red or green LED lights with signs instruct truck driver when it is safe to back into or pull away from loading dock.
         2. Control Box LED Signal Lights: Constant flashing red or green LED lights with signs inform the dock attendant when it is safe to perform loading or unloading.
         3. Audible Alarm: In addition to the flashing red light, interior alarm warns when a RIG has not been properly engaged.
         4. Horn Override: A key switch allows personnel to override the audible alarm. When the audible alarm is in override mode, the inside red and green lights continue to flash simultaneously, while the outside light flashes red and the audible alarm is silenced.
         5. LED lights: Standard LED lights.

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

* + - 1. Options:
         1. IntelliDock Combination control box
         2. Open dock stanchion for control box
         3. Articulated slope extension
         4. Brackets and plates
         5. Green light interlock with leveler or door.
      2. Warranty: In addition to the Standard Product Warranty provided with all NOVA Products, NOVA Technology guarantees materials, components and workmanship to be free of defects for the following extended periods, provided the purchaser maintains and operates the Lock-Up in accordance with the Owner's Manual.
         1. Extended Two-Year General Warranty: For a period of two years from date of shipment, this warranty specifically applies to the roller track assembly, carriage assembly, RIG sensor assembly and control box.
         2. Extended Five-Year Structural Warranty: For a period of five years from date of shipment, product will carry a prorated structural warranty. This warranty specifically applies to; the roller track, carriage weldment, motor cover, barrier assembly and lower spring bar only.

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

* 1. DOCK SEALS AND SHELTERS

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

* + 1. Dock Seals: FP Series Dock Seal with Head Pad as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock seals can significantly improve the energy efficiency and environment control of buildings, reducing costs. They provide an effective barrier against the elements, keeping loading docks safe and efficient. Dock seals also provide a positive seal between internal and external environments. The FP Series Dock Seal features a foam-filled head pad and side pads that provide a tight, energy-efficient seal between the trailer and dock wall providing protection from inclement weather, dirt and insect infiltration. Designed for door openings up to 9 feet wide by 9 feet high (2743 mm by 2743 mm).
       2. Construction: Dock seals shall be constructed from high-density polyurethane foam and select grade pressure-treated, kiln-dried lumber. Cover material and wear pleats are top-grade fabrics providing superior performance and weather resistance.

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

* + - 1. Base Fabric: 22 ounce vinyl.
      2. Base Fabric: 40 ounce vinyl.
      3. Base Fabric: 16 ounce NOVALON.
      4. Base Fabric: 40 ounce NOVALON.
      5. Base Fabric: NOVA MAX-60.
      6. Base Fabric: NOVA MAX-1000.

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

* + - 1. Reinforcing Fabric (Multiple Layers): 22 ounce vinyl.
      2. Reinforcing Fabric (Multiple Layers): 40 ounce vinyl.
      3. Reinforcing Fabric (Multiple Layers): 16 ounce NOVALON.
      4. Reinforcing Fabric (Multiple Layers): 40 ounce NOVALON.
      5. Reinforcing Fabric (Multiple Layers): NOVA MAX-60.
      6. Reinforcing Fabric (Multiple Layers): NOVA MAX-1000.

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

* + - 1. Wear Pleat Spacing: WP4; 4 inches (102 mm).
      2. Wear Pleat Spacing: WP8; 8 inches (203 mm).
      3. Wear Pleat Spacing: WP16; 16 inches (406 mm).

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

* + - 1. Wear Face: Side pad.
      2. Wear Face: Head pad.

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

* + - 1. Scuff Guard: 4 feet (1219 mm).
      2. Scuff Guard: Full height.

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

* + - 1. Bottom Door Flaps: 1 side.
      2. Bottom Door Flaps: 2 sides.
      3. Bottom Door Flaps: 3 sides.

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

* + - 1. Fabric Color: Black.
      2. Fabric Color: Selected from manufacturer's standard options.

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

* + - 1. Required Options:
         1. Wear pleats.
         2. Wear face.
         3. Scuff guards.
         4. Bottom door flaps (1 to 3 sides).
         5. Drop curtains.
         6. Pull rope system for drop curtains.
         7. 2-inch (51 mm) foam-filled drop curtains.
         8. Flame retardant foam and fabric.
         9. Top corner pleats only.
         10. 24-inch (610 mm) high yellow guide stripes.
         11. Blockouts.
         12. Galvanized metal backs.
         13. Chain weighted drop curtain.
         14. Beveled head pads.

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

* + 1. Dock Seals: FPH Series Dock Seal with Hood-Style Head Curtain as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock seals can significantly improve the energy efficiency and environment control of buildings, reducing costs. They provide an effective barrier against the elements, keeping loading docks safe and efficient. Dock seals also provide a positive seal between internal and external environments. The FPH Series Dock Seal has a hood-style head curtain in place of a head pad with fiberglass stays and metal pipe in the fabric hood to maintain support and serviceability. Designed for door openings up to 9 feet wide by 12 feet high (2743 mm by 3658 mm).
       2. Construction: Dock seals shall be constructed from high-density polyurethane foam and select grade pressure-treated, kiln-dried lumber. Cover material and wear pleats are top-grade fabrics providing superior performance and weather resistance.

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

* + - 1. Base Fabric: 22 ounce vinyl.
      2. Base Fabric: 40 ounce vinyl.
      3. Base Fabric: 16 ounce NOVALON.
      4. Base Fabric: 40 ounce NOVALON.
      5. Base Fabric: NOVA MAX-60.
      6. Base Fabric: NOVA MAX-1000.

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

* + - 1. Reinforcing Fabric (Multiple Layers): 18 ounce vinyl.
      2. Reinforcing Fabric (Multiple Layers): 22 ounce vinyl.
      3. Reinforcing Fabric (Multiple Layers): 40 ounce vinyl.
      4. Reinforcing Fabric (Multiple Layers): 16 ounce NOVALON.
      5. Reinforcing Fabric (Multiple Layers): 40 ounce NOVALON.
      6. Reinforcing Fabric (Multiple Layers): NOVA MAX-60.
      7. Reinforcing Fabric (Multiple Layers): NOVA MAX-1000.

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

* + - 1. Wear Pleat Spacing: WP4; 4 inches (102 mm).
      2. Wear Pleat Spacing: WP8; 8 inches (203 mm).
      3. Wear Pleat Spacing: WP16; 16 inches (406 mm).

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

* + - 1. Wear Face: Side pad.
      2. Wear Face: Hood.

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

* + - 1. Scuff Guard: 4 feet (1219 mm).
      2. Scuff Guard: Full height.

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

* + - 1. Bottom Door Flaps: 1 side.
      2. Bottom Door Flaps: 2 sides.
      3. Bottom Door Flaps: 3 sides.

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

* + - 1. Fabric Color: Black.
      2. Fabric Color: Selected from manufacturer's standard options.

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

* + - 1. Required Options:
         1. Wear pleats.
         2. Wear face.
         3. Scuff guards.
         4. Bottom door flaps.
         5. Pull rope system.
         6. Flame retardant foam and fabric.
         7. Top corner pleats only.
         8. 24-inch (610 mm) high yellow guide stripes.
         9. Blockouts.
         10. Galvanized metal backs.
         11. 2-inch (51 mm) foam-filled front on hoods.
         12. Chain weighted drop curtain.

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

* + 1. Dock Seals: FPU Series Dock Seal with Head Pad as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock seals can significantly improve the energy efficiency and environment control of buildings, reducing costs. They provide an effective barrier against the elements, keeping loading docks safe and efficient. Dock seals also provide a positive seal between internal and external environments. The FPU Series Dock Seal accommodates larger doors and provides positive foam seal and wiping action against truck sides. Provides full access side-to-side with this model. Designed for door openings up to 10 feet wide by 9 feet high (3048 mm by 2743 mm).
       2. Construction: Dock seals shall be constructed from high-density polyurethane foam and select grade pressure-treated, kiln-dried lumber. Cover material and wear pleats are top-grade fabrics providing superior performance and weather resistance.

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

* + - 1. Base Fabric: 22 ounce vinyl.
      2. Base Fabric: 40 ounce vinyl.
      3. Base Fabric: 16 ounce NOVALON.
      4. Base Fabric: 40 ounce NOVALON.
      5. Base Fabric: NOVA MAX-60.
      6. Base Fabric: NOVA MAX-1000.

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

* + - 1. Reinforcing Fabric (Multiple Layers): 22 ounce vinyl.
      2. Reinforcing Fabric (Multiple Layers): 40 ounce vinyl.
      3. Reinforcing Fabric (Multiple Layers): 16 ounce NOVALON.
      4. Reinforcing Fabric (Multiple Layers): 40 ounce NOVALON.
      5. Reinforcing Fabric (Multiple Layers): NOVA MAX-60.
      6. Reinforcing Fabric (Multiple Layers): NOVA MAX-1000.

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

* + - 1. Wear Pleat Spacing: WP4; 4 inches (102 mm).
      2. Wear Pleat Spacing: WP8; 8 inches (203 mm).
      3. Wear Pleat Spacing: WP16; 16 inches (406 mm).

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

* + - 1. Wear Face: Side pad.
      2. Wear Face: Head pad.

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

* + - 1. Scuff Guard: 4 feet (1219 mm).
      2. Scuff Guard: Full height.

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

* + - 1. Bottom Door Flaps: 1 side.
      2. Bottom Door Flaps: 2 sides.
      3. Bottom Door Flaps: 3 sides.

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

* + - 1. Fabric Color: Black.
      2. Fabric Color: Selected from manufacturer's standard options.

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

* + - 1. Required Options:
         1. Wear pleats.
         2. Wear face.
         3. Scuff guards.
         4. Bottom door flaps (1 to 3 sides).
         5. Drop curtains, with or without Velcro brand attachments.
         6. Pull rope system for drop curtains.
         7. Chain weighted drop curtain.
         8. 2-inch (51 mm) foam-filled drop curtains.
         9. Flame retardant foam and fabric.
         10. Top corner pleats only.
         11. 24-inch (610 mm) high yellow guide stripes.
         12. Blockouts.
         13. Galvanized metal backs.

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

* + 1. Dock Seals: FPHU Series Dock Seal with Hood-Style Head Curtain as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock seals can significantly improve the energy efficiency and environment control of buildings, reducing costs. They provide an effective barrier against the elements, keeping loading docks safe and efficient. Dock seals also provide a positive seal between internal and external environments. The FPHU Series Dock Seal features a fabric hood-style head curtain to accommodate larger doors and provide a positive foam seal and wiping action against truck sides. Provides full access side-to-side with this model. Designed for door openings up to 10 feet wide by 12 feet high (3048 mm by 3658 mm) and higher doors.
       2. Construction: Dock seals shall be constructed from high-density polyurethane foam and select grade pressure-treated, kiln-dried lumber. Cover material and wear pleats are top-grade fabrics providing superior performance and weather resistance.

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

* + - 1. Base Fabric: 22 ounce vinyl.
      2. Base Fabric: 40 ounce vinyl.
      3. Base Fabric: 16 ounce NOVALON.
      4. Base Fabric: 40 ounce NOVALON.
      5. Base Fabric: NOVA MAX-60.
      6. Base Fabric: NOVA MAX-1000.

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

* + - 1. Reinforcing Fabric (Multiple Layers): 22 ounce vinyl.
      2. Reinforcing Fabric (Multiple Layers): 40 ounce vinyl.
      3. Reinforcing Fabric (Multiple Layers): 16 ounce NOVALON.
      4. Reinforcing Fabric (Multiple Layers): 40 ounce NOVALON.
      5. Reinforcing Fabric (Multiple Layers): NOVA MAX-60.
      6. Reinforcing Fabric (Multiple Layers): NOVA MAX-1000.

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

* + - 1. Wear Pleat Spacing: WP4; 4 inches (102 mm).
      2. Wear Pleat Spacing: WP8; 8 inches (203 mm).
      3. Wear Pleat Spacing: WP16; 16 inches (406 mm).

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

* + - 1. Wear Face: Side pad.
      2. Wear Face: Head pad.

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

* + - 1. Scuff Guard: 4 feet (1219 mm).
      2. Scuff Guard: Full height.

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

* + - 1. Bottom Door Flaps: 1 side.
      2. Bottom Door Flaps: 2 sides.
      3. Bottom Door Flaps: 3 sides.

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

* + - 1. Fabric Color: Black.
      2. Fabric Color: Selected from manufacturer's standard options.

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

* + - 1. Required Options:
         1. Wear pleats.
         2. Wear face.
         3. Scuff guards.
         4. Bottom door flaps.
         5. Pull rope system.
         6. Chain weighted drop curtain.
         7. Flame retardant foam and fabric.
         8. Top corner pleats only.
         9. 24-inch (610 mm) high yellow guide stripes.
         10. Blockouts.
         11. Galvanized metal backs.
         12. 2-inch (51 mm) foam-filled front on hoods.

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

* + 1. Dock Shelters: RF Series Dock Shelter as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock Shelters provide maximum dock protection and full access to trailers while minimizing pressure on the building wall. The RF Series features high wear-resistant fabric with double lock-stitched seams, bottom corner draft pads and standard 36 inch drop head curtain with fiberglass stays, protective corner reinforcement pleats and wind retention straps. The raked header with a translucent fiberglass top provides natural light, permits water drainage, and provides snow load support. Designed for door openings up to 12 feet wide x 12 feet high and higher doors.
       2. Construction: The dock shelter is constructed from select grade pressure-treated, kiln-dried wood side and head frame, top grade, abrasion-resistant fabric and translucent fiberglass panels.
       3. Base Fabric: 22 ounce vinyl.
       4. Base Fabric: 40 ounce vinyl.
       5. Base Fabric: 16 ounce NOVALON.
       6. Base Fabric: 40 ounce NOVALON.
       7. Base Fabric: NOVA MAX-60.
       8. Base Fabric: NOVA MAX-1000.

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

* + - 1. Taper: Yes.
      2. Taper: No.

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

* + - 1. Head Frame: Rake:
      2. Head Frame: Flat.
      3. Frame Construction: Solid kiln-dried pressure-treated lumber.
      4. Steel Support Bumpers: 21 inches (533 mm).

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

* + - 1. Steel Support Bumpers: 27 inches (686 mm).
      2. Steel Support Bumpers: 33 inches (838 mm).
      3. Steel Support Bumpers: 39 inches (990 mm).
      4. Steel Support Bumpers: 45 inches (1143 mm).
      5. Steel Support Bumpers: 51 inches (1295 mm).
      6. Color: Black.
      7. Color: Selected from manufacturer's standard options.
      8. Features:
         1. Flexible fiberglass stays.
         2. Select grade pressure-treated, kiln-dried wood side and head frame.
         3. Frames covered with translucent fiberglass.
         4. Aluminum angle face edging.
         5. Top-grade fabrics utilized for superior performance and weather resistance.
         6. Vinyl covered foam "drop in" style draft pads.
         7. Steel support bumpers (black).
         8. Heavy-duty galvanized mounting hardware.
         9. 15-inch (381 mm) yellow guide stripes standard.

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

* + - 1. Required Options:
         1. Full-height yellow guide stripes.
         2. Shelter projection 24 inches (610 mm) standard - customizable to any projection.
         3. 2-inch (51 mm) foam front head curtain.
         4. Pull rope system.
         5. Hook and loop splits on head curtain.
         6. Head curtain drop over 54 inches (1371 mm).
         7. Frame cut-outs for obstructions.
         8. Non-projecting frame.
         9. Common member units.
         10. Ground level units.
         11. 18 oz. white vinyl on frames.
         12. Galvanized steel channel frame.
         13. Clear roof panels for extra lighting.
         14. Chain weighted drop curtain.
         15. Spring steel stays.

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

* + 1. Dock Shelters: SS Series Soft-Sided Shelter as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock Shelters provide maximum dock protection and full access to trailers while minimizing pressure on the building wall. The RF Series features high wear-resistant fabric with double lock-stitched seams, bottom corner draft pads and standard 36 inch drop head curtain with fiberglass stays, protective corner reinforcement pleats and wind retention straps. The raked header with a translucent fiberglass top provides natural light, permits water drainage, and provides snow load support. Designed for door openings up to 12 feet wide x 12 feet high and higher doors.
       2. Construction: The dock shelter is constructed from select grade pressure-treated, kiln-dried wood side and head frame, top-grade, abrasion-resistant fabric and translucent fiberglass panels.
       3. Base Fabric: 22 ounce vinyl.
       4. Base Fabric: 40 ounce vinyl.
       5. Base Fabric: 16 ounce NOVALON.
       6. Base Fabric: 40 ounce NOVALON.
       7. Base Fabric: NOVA MAX-60.
       8. Base Fabric: NOVA MAX-1000.

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

* + - 1. Taper: Yes.
      2. Taper: No.

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

* + - 1. Head Frame: Rake.
      2. Head Frame: Flat.
      3. Frame Construction: Solid kiln-dried pressure-treated lumber.
      4. Steel Support Bumpers: 21 inches (533 mm).

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

* + - 1. Steel Support Bumpers: 27 inches (686 mm).
      2. Steel Support Bumpers: 33 inches (838 mm).
      3. Steel Support Bumpers: 39 inches (990 mm).
      4. Steel Support Bumpers: 45 inches (1143 mm).
      5. Steel Support Bumpers: 51 inches (1295 mm).
      6. Color: Black.
      7. Color: Selected from manufacturer's standard options.
      8. Features:
         1. Flexible fiberglass stays.
         2. Select grade pressure-treated, kiln-dried wood side and head frame.
         3. Frames covered with translucent fiberglass.
         4. Aluminum angle face edging.
         5. Top grade fabrics utilized for superior performance and weather resistance.
         6. Vinyl covered foam "drop in" style draft pads.
         7. Steel support bumpers (black).
         8. Heavy duty galvanized mounting hardware.
         9. 15 inch (381 mm) yellow guide stripe standard.

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

* + - 1. Required Options:
         1. Full height yellow guide stripes.
         2. Shelter projection 24 inches (610 mm) standard - customizable to any projection.
         3. 2 inch (51 mm) foam front head curtain.
         4. Pull rope system.
         5. Hook and loop splits on head curtain.
         6. Head curtain drop over 4 inches (1371 mm).
         7. Frame cut-outs for obstructions.
         8. Non-projecting frame.
         9. Common member units.
         10. Ground level units.
         11. 18 oz. white vinyl on frames.
         12. Galvanized steel channel frame.
         13. Clear roof panels for extra lighting.
         14. Chain weighted drop curtain.
         15. Spring steel stays.

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

* + 1. Dock Shelters: SS Series Soft-Sided Shelter as manufactured by Nova Technology with the following characteristics:
       1. Operation: Dock Shelters provide maximum dock protection and full access to trailers while minimizing pressure on the building wall. The RF Series features high wear-resistant fabric with double lock-stitched seams, bottom corner draft pads and standard 36 inch drop head curtain with fiberglass stays, protective corner reinforcement pleats and wind retention straps. The raked header with a translucent fiberglass top provides natural light, permits water drainage, and provides snow load support. Designed for door openings up to 12 feet wide x 12 feet high and higher doors.
       2. Construction: The dock shelter is constructed from select grade pressure-treated, kiln-dried wood side and head frame, top grade, abrasion-resistant fabric and translucent fiberglass panels.
       3. Base Fabric: 22 ounce vinyl.
       4. Base Fabric: 40 ounce vinyl.
       5. Base Fabric: 16 ounce NOVALON.
       6. Base Fabric: 40 ounce NOVALON.
       7. Base Fabric: NOVA MAX-60.
       8. Base Fabric: NOVA MAX-1000.

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

* + - 1. Taper: Yes.
      2. Taper: No.

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

* + - 1. Head Frame: Rake.
      2. Head Frame: Flat.
      3. Frame Construction: Solid kiln-dried pressure-treated lumber.
      4. Steel Support Bumpers: 21 inches (533 mm).

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

* + - 1. Steel Support Bumpers: 27 inches (686 mm).
      2. Steel Support Bumpers: 33 inches (838 mm).
      3. Steel Support Bumpers: 39 inches (990 mm).
      4. Steel Support Bumpers: 45 inches (1143 mm).
      5. Steel Support Bumpers: 51 inches (1295 mm).
      6. Color: Black.
      7. Color: Selected from manufacturer's standard options.
      8. Features:
         1. Flexible fiberglass stays.
         2. Select grade pressure-treated, kiln-dried wood side and head frame.
         3. Frames covered with translucent fiberglass.
         4. Aluminum angle face edging.
         5. Top grade fabrics utilized for superior performance and weather resistance.
         6. Vinyl covered foam "drop in" style draft pads.
         7. Steel support bumpers (black).
         8. Heavy duty galvanized mounting hardware.
         9. 15 inch (381 mm) yellow guide stripe standard.

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

* + - 1. Required Options:
         1. Full height yellow guide stripes.
         2. Shelter projection 24 inches (610 mm) standard - customizable to any projection.
         3. 2 inch (51 mm) foam front head curtain.
         4. Pull rope system.
         5. Hook and loop splits on head curtain.
         6. Head curtain drop over 54 inches (1371 mm).
         7. Frame cut-outs for obstructions.
         8. Non-projecting frame.
         9. Common member units.
         10. Ground level units.
         11. 18 oz. white vinyl on frames.
         12. Galvanized steel channel frame.
         13. Clear roof panels for extra lighting.
         14. Chain weighted drop curtain.
         15. Spring steel stays.

\*\* NOTE TO SPECIFIER \*\* Nova Dock Sentinel Safety Gates are durable, reliable and safe. They are easy to install and operate, and provide an effective barrier for personnel and equipment working near open dock doors, truck loading docks or other dangerous areas. Delete article if not required.

* 1. SAFETY GATES
     1. Safety Gates: Dock Sentinel as manufactured by Nova Technology.

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

* + - 1. Model: DS-080F, part number DG-048-000.
         1. Gate Opening Width: 8 feet 0 inches (2438 mm).
         2. Vertical Clearance: 8 feet 8 inches (2642 mm).
         3. Load Stopping Capability: Up to 100 impacts of 2000 pounds (907 kg) load at 3 MPH (4.8 kMh).
      2. Model: DS-086F, part number DG-109-000.
         1. Gate Opening Width: 8 feet 6 inches (2590) mm).
         2. Vertical Clearance: 8 feet 8 inches (2642 mm).
         3. Load Stopping Capability: Up to 100 impacts of 1900 pounds (861 kg) load at 3 MPH (4.8 kMh).
      3. Model: DS-090F, part number DG-108-000
         1. Gate Opening Width: 9 feet 0 inches (2743 mm).
         2. Vertical Clearance: 9 feet 2 inches (2794 mm).
         3. Load stopping Capability: Up to 100 impacts of 1800 pounds (816 kg) load at 3 MPH (4.8 kMh).
      4. Features:
         1. Flex hinge design dissipates impact energy to withstand multiple impacts from pallets or pallet jacks.

Designed to withstand an impact force of over 3,000 pounds at 3 mph, and dozens of impacts of up to 2,000 pounds at 3 mph

* + - * 1. Easy manual operation with controlled descent.
        2. Gate provides full door width pass-through clearance.
        3. Barriers secure in the upward position with self-engaging latches.
        4. Lower barrier construction of 1/4 inch wall ASTM A500 structural steel tubing.
        5. Upper barrier is 42 inches high (above floor level) when closed.
        6. Upper barrier meets the OSHA 1910.23(e)(5)(iv) load force protection requirement.
      1. Structural:
         1. Uprights: 1/4 inch (6 mm) thick A-36 steel, formed and welded into a custom 6 1/2 inches (165 mm) web by 10-3/4 inches (273 mm) flanged channel for maximum door track protection.
         2. Channels: Welded to 3/8 inch (9.5 mm) thick A-36 steel base plates and anchored to floor with a total of eight, 5/8-11 by 4-1/2 inches (114 mm) long anchor bolts, included.
         3. Both Arms of Lower Barrier: A-500 Grade B rectangular steel tubing, 5 by 2 by 1/4 inches (127 by 52 by 6 mm) thick, and joined in middle when gate is closed with a 14 inch (356 mm) long saddle.
         4. Saddle: Formed and welded channel made with gussets 1/4 inch (6 mm) thick A-36 steel.
         5. Interlocking Glad Hands: 1/4 inch (6 mm) thick A-36 steel to provide additional impact resistance.
         6. Hinges for Lower Barrier: Contained within an energy absorbing polymer for maximum impact protection with minimal damage to barriers, material handling equipment and product.
         7. Upper Barrier: A-500 Grade B square steel tubing, 1-1/2 by 3/16 inches (38 by 4.8 mm) thick, is provided for status at a glance visual indication when gate is closed and to keep pedestrians from tripping over lower barrier.
         8. Both sides of Gate: Independently powered with a total of four, gas springs resulting in minimal manual lifting force to raise or lower gate.
         9. Latches are provided on each side to positively retain gate in open condition.
      2. Operation: Manually operated gate style barrier. When dock use is required, the dock safety gate is opened by simply lifting the gate into an upright position until latched. When dock use is finished, each side of the gate is unlatched and lowered back to the closed position.
      3. Dock Door Protection: Lower impact barrier with shock absorbing flex bushings and flexible center interlock.
      4. Door Track Protection: Vertical stanchions provide protection to 42 inches 1066 mm) off floor; yellow gate arms provide visible alert to 98 inches (2489 mm).
      5. Pedestrian Protection: Upper barrier is 42 inches (1066 mm) high and supports 200 pound (90 kg) weight in any direction per OSHA Standard 1910.
      6. Activation: 4 by gas spring balanced arms meet NIOSH requirements for operator force less than 50 lbs (22 kg).
      7. Lower Barrier Construction: 1/4 inch (6 mm) wall ASTM A 500 structural steel tubing.
      8. Finish: Safety yellow powder coat finish.
      9. Safety Features:
         1. In a closed position, protects personnel, goods and equipment from inadvertently falling off the loading dock through an open dock door.
         2. Stops powered hand trucks from colliding with loading dock door
         3. Prevents pedestrians from walking off edge of dock
         4. Barriers secure in upward position with self-engaging latches

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

* 1. SAFETY BARRIERS
     1. Safety Barrier: NOVA Defender Gate 10 as manufactured by Nova Technology. For protecting equipment, pedestrian zones, hazardous areas, and other in-plant safety applications from accidental forklift impact.
        1. Functional in tight areas and facilities where space is limited.
        2. Equipped with a single safety rail standing 42 inches (1067 mm) tall, heavy-duty bollards, and easy-glide hinges.
        3. Safety Guard attachment adds a barrier below the rail of the gate, extending 6 inches above the floor for crawl-through protection.
           1. Allows for installation at loading docks or other raised surfaces.
           2. With the Safety Guard attachments, meets OSHA standards for fall protection.
        4. A MID Rail attachment adds a barrier 21 inches (533 mm) above the floor.
           1. With Mid Rail attachments, meets OSHA standards for fall protection.
        5. Can be installed at loading docks or other raised surfaces.
        6. Stops personnel and materials from entering restricted areas or falling off ledges.
        7. Meets OSHA 29 CFR 1910.23(e)(3)(v)(b) - Occupational Safety and Health Standards, Walking-Working Surfaces, Guarding Floor and Wall Openings and Holes.
        8. Additional Features:
           1. Heavy-duty steel construction with self-lubricating hardware
           2. Standard sizes available up to 10 ft (3048 mm).
           3. Lockable latch (lock not included).
           4. Built-in leveling screws.
        9. Options:
           1. Safety Guard attachments and electronic interlock options available
           2. 21 inch (533 mm) Mid Rail attachment
           3. Custom sizes and configurations available
        10. Operation: Manually operated. Folds in half with easy glide hinges.
            1. Allows full pass-through clearance with gate open at 90 degrees.
        11. Structural:
            1. Bollards: 4-inch square, 3/16 inch (5 mm) thick A-500 Grade B steel tubing.

Base Plates: 3/8 inch (10 mm) thick A-36 steel base plates.

Tubes are base plates are welded to each other.

Floor Anchors: Fourteen, 5/8 x 6 inch (16 x 52 mm) long concrete anchor bolts, included.

* + - * 1. Main Center Sections: A-500 Grade B rectangular steel tubing, 10 x 3 x 1/8 inch (254 x 76 x 3 mm) thick. Joined in the middle with a center pin.
        2. Finish: Powder coated safety yellow and 3M reflective tape for optimal visibility and durability.
        3. Performance: Can stop a 13,500 lbs (60 kN) fork lift traveling at 6.5 mph.
      1. Safety Features:
         1. Latch release on grab handle allows faster easier opening and closing.
         2. Positive stop holds gate open without using moving parts.
         3. Top grab handles keep hands away from pinch points
      2. Warranty: Manufactured products shall remain free of defects in material and workmanship under normal use for a period of one year from date of shipment.
    1. Safety Barrier: NOVA Defender Gate 20 as manufactured by Nova Technology. For use at loading docks, pits or vats.
       1. Functional in tight areas and facilities where space is limited.
       2. Stands 42 inches (1067 mm) tall with a heavy-duty double panel for added safety.
       3. Lower Bottom Rung: Meets OSHA 21 inch mid-rail requirement and fall protection standards.
       4. Safety Guard Attachment: Adds a barrier above, between, and below the rails of the gate.
          1. Attachments reach 72 inches (1829 mm) high and extend to 6 inches above the floor for overhead and crawl through protection.
          2. Protects elevated equipment, restricts access to dangerous areas, and stops personnel or materials from falling off ledges.
       5. Meets OSHA 29 CFR 1910.23(e)(3)(v)(b) - Occupational Safety and Health Standards, Walking-Working Surfaces, Guarding Floor and Wall Openings and Holes.
       6. Additional Features:
          1. Heavy-duty steel construction with self-lubricating hardware
          2. Standard sizes available up to 10 ft (3048 mm).
          3. Lockable latch (lock not included)
          4. Built-in leveling screws
       7. Options:
          1. Safety Guard attachments and electronic interlock options available.
          2. Custom sizes and configurations available.
       8. Operation: Manually operated. Folds in half with easy glide hinges.
          1. Allows full pass-through clearance with gate open at 90 degrees.
       9. Structural:
          1. Bollards: 4 inch (102 mm) square, 3/16 inch (5 mm) thick A-500 Grade B steel tubing.

Base Plates: 3/8 inch (10 mm) thick A-36 steel base plates.

Tubes are base plates are welded to each other.

Floor Anchors: Fourteen, 5/8 x 6 inch (16 x 152 mm) long concrete anchor bolts, included.

* + - * 1. Main Center Sections: A-500 Grade B rectangular steel tubing, 10 x 3 x 1/8 inch (254 x 76 x 3 mm) thick. Joined in the middle with a center pin.
        2. Finish: Powder coated safety yellow and 3M reflective tape for optimal visibility and durability.
        3. Performance: Can stop a 13,500 lbs (65 kN) fork lift traveling at 6.5 mph.
      1. Safety Features:
         1. Safety Guard attachments and electronic interlock options available.
         2. Latch release on grab handle allows faster easier opening and closing.
         3. Positive stop holds gate open without using moving parts.
         4. Top grab handles keep hands away from pinch points
      2. Warranty: Manufactured products shall remain free of defects in material and workmanship under normal use for a period of one year from date of shipment.
    1. Safety Barrier: NOVA Defender Gate XL as manufactured by Nova Technology. Provides a large coverage area for increasing in-plant safety and security or protecting loading docks and other elevated surfaces.
       1. Safety Guard attachments for enhanced protection add barriers above, below, and in-between the rails that reach 72 inches (1829 mm) high and extend to 6 inches above floor for overhead and crawl-through protection.
       2. Meets OSHA 29 CFR 1910.23(e)(3)(v)(b) - Occupational Safety and Health Standards, Walking-Working Surfaces, Guarding Floor and Wall Openings and Holes.
       3. Additional Features:
          1. Heavy-duty steel construction with self-lubricating hardware
          2. Available Widths: 12 to 16 ft (3658 to 4877 mm).
          3. Includes locking pin with padlock
          4. Built-in leveling screws
          5. Upper and lower guardrails
          6. Three top handles for easy operation
       4. Options:
          1. Safety Guard attachments and electronic interlock options available
          2. Custom sizes and configurations available
       5. Operation: Manually operated. Folds in half with easy glide hinges.
          1. Allows full pass-through clearance.
       6. Structural :
          1. Bollards: 4 inch (102 mm) square, 3/16 inch (5 mm) thick A-500 Grade B steel tubing.

Base Plates: 3/8 inch (10 mm) thick A-36 steel base plates.

Tubes are base plates are welded to each other.

Floor Anchors: Twenty four, 3/4 x 6 inch (19 x 152 mm) long concrete anchor bolts, included.

* + - * 1. Main Center Sections: A-500 Grade B rectangular steel tubing, 10 x 3 x 1/8 inch (254 x 76 x 3 mm) thick. Joined in the middle with a center pin.
        2. Finish: Powder coated safety yellow and 3M reflective tape for optimal visibility and durability.
        3. Performance: Can stop a 13,500 lbs (65 kN) fork lift traveling at 6.5 mph.
      1. Safety Features:
         1. Safety Guard attachments and electronic interlock options available.
      2. Warranty: Manufactured products shall remain free of defects in material and workmanship under normal use for a period of one year from date of shipment.

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

* 1. .TRUCK LOCKS

\*\* NOTE TO SPECIFIER \*\* Delete truck style option not required then delete Truck Lock model not required.

* + 1. Performance and Design Requirements:
       1. Standards Compliance:
          1. American National Standards Institute (ANSI):

ANSI MH30.3 - Vehicle Restraining Devices Safety, Performance and Testing.

ANSI Z535.1 - Safety Color Code.

ANSI Z535.3 - Criteria for Safety Symbols.

ANSI Z535.4 - Product Safety Signs and Labels.

* + - * 1. American Society for Testing Materials (ASTM):

ASTM A6/A6M - Standard Specification for General Requirements for Rolled Structural Steel Bars, Plates, Shapes and Sheet Piling.

ASTM A36/A36M - Standard Specification for Carbon Structural Steel.

ASTM A370 - Standard Test Methods and Definitions for Mechanical Testing of Steel Products.

ASTM B117 - Standard Practice for Operating Salt Spray (Fog) Apparatus.

ASTM D4950 - Standard Classification and Specification of Automotive Service Greases.

* + - * 1. American Welding Society (AWS):

AWS D1.1 - Structural Welding Code, Steel.

* + - * 1. Federal Motor Vehicle Safety Standards and Regulations (FMVSS):

FMVSS 223 - Laboratory Test Procedure for FMVSS 223 Rear Impact Guards.

FMVSS 224 - Rear Impact Protection.

* + - * 1. National Electrical Manufacturers Association (NEMA):

NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

* + - * 1. National Fire Protection Association (NFPA):

NFPA 70 - National Electric Code (NEC).

NFPA 79 - Electrical Standard for Industrial Machinery.

* + - * 1. Underwriters Laboratories, Inc. (UL):

UL 508 A - Standard for Industrial Control Panel.

* + - 1. Safety Features:
         1. Communication package with signage and inside/outside red/green LED lights in opposing mode.
         2. Audible alarm built into control panel alerts the dock attendant to potentially unsafe conditions.
      2. Operation: After truck/trailer backs into position against the dock bumpers:
         1. Switch Truck Lock to RESTRAIN position activating restraint.

Outside Light: Turns red. Inside Light: Turns green.

* + - * 1. After verifying ram bar is above the RIG (Rear Impact Guard):

It is safe to enter the trailer.

* + - * 1. When the loading/unloading process is completed:

Switch Truck Lock to RELEASE position deactivating restraint and lowering the ram bar.

* + - 1. Communication System:
         1. Outside: Constant flashing red or green LED lights. Signage: Instruct truck driver when it is safe to back into or pull away from loading dock.
         2. Inside: Constant flashing red or green LED lights. Signage: Helps dock attendant know when it is safe to perform loading and unloading operations.
         3. Audible Alarm: In addition to flashing red light, an interior alarm warns dock attendant when a fault condition is present and if vertical barrier is unable to fully extend to engage the RIG.
         4. Audible Alarm Override: Push-button allows override of audible alarm. When audible alarm is in override, inside red and green lights flash simultaneously while outside light flashes red and audible alarm is silenced.
      2. Activation System:
         1. Turning switch or moving a slide bar on control console to RESTRAIN position.

Switch: Controls pneumatic cylinder that actuates cable and is located inside the building in a powder-coated steel enclosure.

Powered operations require air from a plant system or small compressor. Air must be dry, clean and a 80 to 130 psi (0.55 to 0.90 Mpa). Air usage is approximately 0.015 cu ft per operation.

Normal Power Stroke Duration: 2 seconds.

Slide Bar: Mechanical version. Located inside the building in a powder coated steel enclosure.

* + - * 1. Ram Bar: Raised by high-strength, nylon-coated, aircraft-grade stainless steel cable and guided over heavy-duty pulleys with shielded bearings.

Outside Light: Turns green. Inside Light: Turns red.

* + - 1. Electrical: Control Box.
         1. All Components: UL Listed or Recognized for industrial use.
         2. Power Cord: 6 ft (1829 mm) factory-installed. Plugs into 120 VAC 60 Hz outlet and draws 0.5 amps.
         3. LED Lights: Interior and exterior. Operates on a 12 V circuit.
    1. Truck Lock Style: Cast-In vehicle restraints as manufactured by Nova Technology.
       1. Truck Locks: NOVA 350 Series. Holds trucks and trailers are in place with a high-visibility barrier-style ram bar with a pullout force over 30,000 lbs (206.84 Mpa) to prevent separation from loading dock.
          1. Cast-In Style Housing: Embedded into concrete for years of service without damage to building. Zinc plated and self-contained to handle harsh loading environments.
       2. Truck Locks: NOVA Low Profile. Holds trucks and trailers are in place with a high-visibility barrier-style ram bar with a pullout force over 30,000 lbs (206.84 Mpa) to prevent separation from loading dock.
          1. Cast-In Style Housing: Embedded into concrete for years of service without damage to building. Zinc plated and self-contained to handle harsh loading environments.
       3. Features:
          1. Lifetime Warranty: Longest warranty in the industry.
          2. Retracted height: 10 inches (254 mm).
          3. Non-impact design.
          4. Operation: Manual or powered.
          5. Communication Package: LED inside and outside light.
          6. Ram Bar: Yield Strength: 100,000 psi (689.47 Mpa).
          7. Finish: Zinc-plated.
          8. All activation components are mounted inside the building.
          9. Low maintenance design. Few moving parts.
          10. Installs at more nontraditional dock types.
          11. Small footprint.
          12. Versatility in handling a larger variety of trucks.
       4. Options:

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

* + - * 1. Compressor/wall bracket.
        2. Truck sensor.
        3. IntelliDock Combination control box (powered versions only).
        4. Interlock with leveler or door.
        5. Open dock stanchion.
        6. Metal building mount kit.
        7. Rebar Installation Kit for asphalt or non-concrete approach applications.
        8. Swivel brackets.
      1. Structural:
         1. Vertical Ram Bar: 4-5/16 x 1 inch (110 x 25 mm) thick ASTM A514 Grade B plate, Yield strength: 100,000 psi (689.47 Mpa).
         2. Housing: 6 x 3 x 1/4 inch (152 x 76 x 6 mm) ASTM A500 Grade B rectangular steel tubing, capped with a ram sheath cast steel with yield strength of 55,000 psi (379.21 Mpa) and fully welded to the housing tube.

Housing is embedded 21 inches (533 mm) into the approach with 4,000 psi (27.58 Mpa) concrete.

* + - * 1. Gussets: 1/2 inch (13 mm) thick steel Yield Strength: 36,000 psi (248 Mpa). Welded to and reinforce the housing tube and ram sheath.
      1. Accessories:
         1. Oil-Free Air Compressor: Little to no maintenance. Operates 15 vehicle restraints within 300 ft (91.44 m).
         2. Concrete Hole Form: New construction. Can be positioned prior to pouring concrete for dock approach. The 10 inch (254 mm) diameter form comes in 12 inch (305 mm) sections.

\*\* NOTE TO SPECIFIER \*\* Delete console support option not required.

* + - * 1. Console Support: Metal building. Use in a non-structural area of metal building wall. Anchors to floor for optimal placement.
        2. Console Support: Open Dock (Stanchion) Kit. Use where there are no walls to attach console. Mounts to edge of dock face.
        3. Interlock: Dock door or leveler.

Cuts power to an overhead door or powered leveler.

Until ram bar is raised, the door or dock leveler cannot be operated.

Once restraint is raised (ram bar up and inside green light is on), a relay inside the restraint control box is energized, restoring power to the dock door or leveler.

* + - * 1. Rebar Installation Kit: Use when installing lock-in asphalt or other non-concrete approaches.
        2. Sensor Switch Kit: When RIG activates the sensor wand, a flashing red light on the control box indicates a truck is present.

Once truck is restrained, the red indicator light and a green indicator light become steady, indicating the truck is safe to load or unload.

* + - * 1. Swivel Brackets: Guide Truck Lock cabling around corners or up curb on the dock wall. Multiple configurations can be used in a variety of combinations:

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

Swivel Bracket Upper Pulley 41-3-912.

Swivel Bracket Lower Pulley 41-3-908.

Swivel Bracket 180 to 270 degrees 41-3-903.

Swivel Bracket 90 to 180 degrees 41-3-906.

* + 1. Truck Lock Style: Flanged vehicle restraints as manufactured by Nova Technology
       1. Truck Locks: NOVA 350 Series. Holds trucks and trailers are in place with a high-visibility barrier-style ram bar with a pullout force over 30,000 lbs (206.84 Mpa) to prevent separation from loading dock.
          1. Bolt-In (Flange) Style Housing: Anchored into concrete drive. Allows easier movement to other dock positions in event of required location changes. Zinc-plated steel housing completely self-contained to handle harsh loading environments.
       2. Truck Locks: NOVA Low Profile Series. Holds trucks and trailers are in place with a high-visibility barrier-style ram bar with a pullout force over 30,000 lbs (206.84 Mpa) to prevent separation from loading dock.
          1. Bolt-In (Flange) Style Housing: Anchored into concrete drive. Allows easier movement to other dock positions in event of required location changes. Zinc-plated steel housing completely self-contained to handle harsh loading environments.
       3. Features:
          1. Lifetime Warranty: Longest warranty in the industry.
          2. 7-1/2 inch (190 mm) retracted height for use with lift gates and steep decline approach.
          3. Non-impact design.
          4. Operation: Manual or powered.
          5. Communication Package: LED inside and outside light.
          6. Ram Bar: Yield Strength: 100,000 psi (689.47 Mpa).
          7. Finish: Zinc-plated.
          8. All activation components are mounted inside the building.
          9. Low maintenance design. Few moving parts.
          10. Versatility in handling a larger variety of trucks.
          11. Installs at more nontraditional dock types.
          12. Small footprint.
          13. Versatility in handling a larger variety of trucks.
       4. Options:

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

* + - * 1. Compressor/wall bracket.
        2. IntelliDock Combination control box (powered versions only).
        3. Interlock with leveler or door.
        4. Open dock stanchion.
        5. Metal building mount kit.
        6. Swivel brackets.
      1. Structural:
         1. Vertical Ram Bar: 4-5/16 x 1 inch (110 x 25 mm) thick ASTM A514 Grade B plate, Yield strength: 100,000 psi (689.47 Mpa).
         2. Housing: 6 x 3 x 1/4 inch (152 x 76 x 6 mm) ASTM A500 Grade B rectangular steel tubing, capped with a ram sheath cast steel with yield strength of 55,000 psi (379.21 Mpa) and fully welded to the housing tube.

Housing is embedded 21 inches (533 mm) into the approach with 4,000 psi (27.58 Mpa) concrete.

* + - * 1. Gussets: 1/2 inch (13 mm) thick steel Yield Strength: 36,000 psi (248 Mpa). Welded to and reinforce the housing tube and ram sheath.
        2. Housing and gussets are welded to a 25 inch (635 mm) long x 16 inch (406 mm) wide (tapers to 9-1/4 inches (235 mm) wide) x 3/8 inch (9.5 mm) thick base plate of 36,000 psi (248 Mpa) minimum yield strength steel.
        3. Housing: Embedded into approach with seven heavy-duty 5/8 x 5 inch (16 x 127 mm) long hex head anchor screws.
      1. Accessories:
         1. Oil-Free Air Compressor: Little to no maintenance. Operates 15 vehicle restraints within 300 ft (91.44 m).
         2. Concrete Hole Form: New construction. Can be positioned prior to pouring concrete for dock approach. The 10 inch (254 mm) diameter form comes in 12 inch (305 mm) sections.

\*\* NOTE TO SPECIFIER \*\* Delete console support option not required.

* + - * 1. Console Support: Metal building. Use in a non-structural area of metal building wall. Anchors to floor for optimal placement.
        2. Console Support: Open Dock (Stanchion) Kit. Use where there are no walls to attach console. Mounts to edge of dock face.
        3. Interlock: Dock door or leveler.

Cuts power to an overhead door or powered leveler.

Until ram bar is raised, the door or dock leveler cannot be operated.

Once restraint is raised (ram bar up, inside green light is on), a relay inside the restraint control box is energized, restoring power to dock door or leveler.

* + - * 1. Sensor Switch Kit: When RIG activates the sensor wand, a flashing red light on the control box indicates a truck is present.

Once truck is restrained, the red indicator light and a green indicator light become steady, indicating the truck is safe to load or unload.

* + - * 1. Swivel Brackets: Guide Truck Lock cabling around corners or up curb on the dock wall. Multiple configurations can be used in a variety of combinations:

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

Swivel Bracket Upper Pulley 41-3-912.

Swivel Bracket Lower Pulley 41-3-908.

Swivel Bracket 180 to 270 degrees 41-3-903.

Swivel Bracket 90 to 180 degrees 41-3-906.

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. INSTALLATION
      1. Install in accordance with manufacturer's instructions and in proper relationship with adjacent construction. Test for proper operation.
   3. PROTECTION
      1. Protect installed products until completion of project.
      2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION