BLUFF MANUFACTURING

PRODUCT GUIDE

YARD RAMPS	STEEL PLATFORMS	DOCK BOARDS	DOCK PLATES
RAIL BOARDS	DOCK LEVELERS	WHEEL RISERS	CRASH GUARD™
MEZZANINE STRUCTURES	CONVEYOR CROSSOVERS	STAIRWAYS, LANDINGS, LADDERS	CANTILEVER RACK

800.433.2212

www.bluffmanufacturing.com

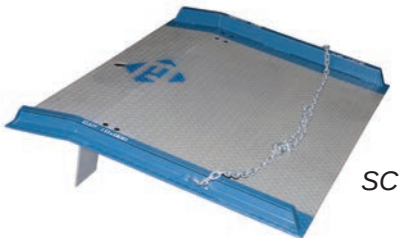
2-2013

DOCK BOARDS

Fully-welded steel dock boards provide a safe ramp for powered vehicles. Improve product life, safety, and efficiency by selecting the best product for your application. **See Dock Board Selection Guide on page 5 before ordering to a ensure correct selection.**

STEEL DOCK BOARD **Model SC**

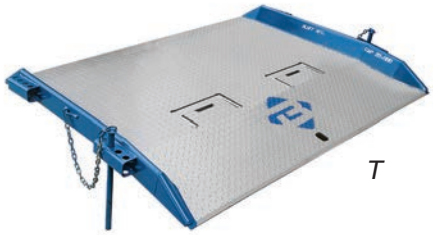
- Steel plate with welded steel curbs and locking legs.
- Designed for 3,000 to 4,000 pound capacity forklifts in light use applications.
- Lifting chains included. *Speedy Board*® option (p. 5) available.
- Capacity 10,000 and 13,000 pounds.
- Width of 60" and 72". Lengths from 36" to 72".



SC

STEEL DOCK BOARD **Model T**

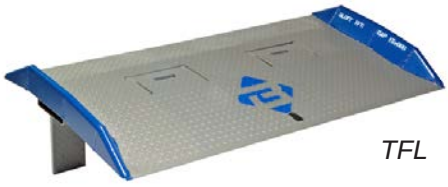
- All-welded steel construction, double bend design.
- Use with conventional, refrigerated, and container trailers, or for below dock conditions.
- Capacities from 15,000 to 40,000 pounds.
- Two four-hole pin pockets placed on each edge for flexible positioning.
- Board is held in position using two 1” stress-proof steel pins.
- Fold-down lifting loops. *Speedy Board*® option (p. 5) available.
- Widths from 60" to 96".



T

STEEL DOCK BOARD **Model TFL**

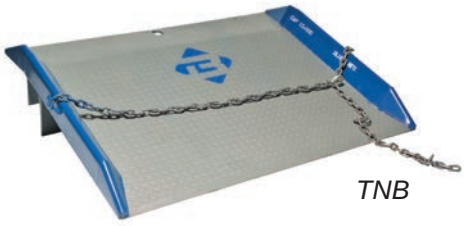
- Same basic design as the “T” dock board, but uses locking legs in lieu of steel pins.
- Fold-down lifting loops. *Speedy Board*® option available.
- Not recommended for below dock loading.



TFL

STEEL DOCK BOARD **Model TNB**

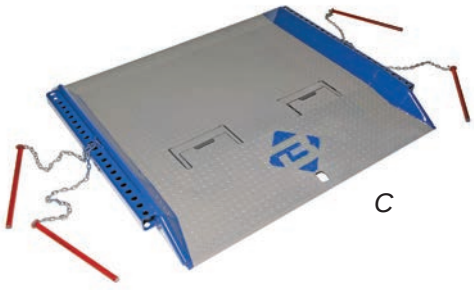
- Single-bend design with lifting chains and full-width locking legs.
- Lifting chains included. *Speedy Board*® (p. 5) option available.
- Not recommended for below dock loading.



TNB

RED PIN STEEL DOCK BOARD **Model C**

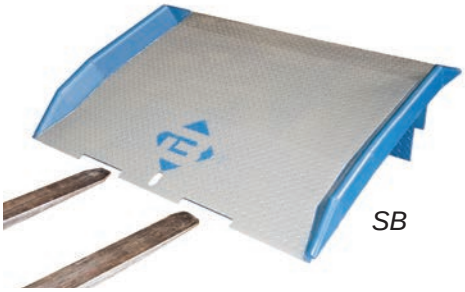
- All-welded steel construction.
- Provide safe loading conditions for container and park-out and uneven trailer-to-dock applications.
- Dual-pin locking system with full length side pockets.
- *Speedy Board*® option (p. 5) available.
- Capacities from 15,000 to 40,000 pounds.
- Widths from 60” to 96”. Lengths from 48” to 120”.



C

SPEEDY BOARD® **Model SB**

- A Bluff innovation that allows forklift operators to stay inside the forklift cage during board placement and retrieval
- Improves safety, productivity and efficiency.
- Capacities of 10,000, 13,000, or 15,000 lbs.



SB

Manufactured and tested in compliance with ANSI Standard MH30.2

DOCK BOARDS

CONTAINER RAMP **Model CR**

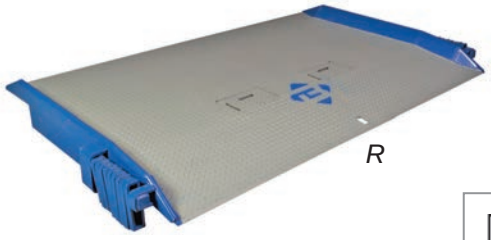
- Perfect for loading and unloading shipping containers at ground level.
- Built tough to withstand heavy use
- Safely navigate the transition from ground to the container bed.
- Manufactured for use with hand or powered equipment
- Full width stiffener provides strength and secure fit against the container
- Locking chains with a specially designed keeper allow you to easily lock the ramp into the holes in the container
- Standard sizes available in 15,000 to 30,000 capacities. Other sizes available.

CR

CR

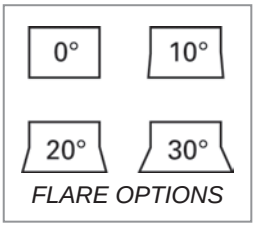
RAIL BOARD **Model R**

- All-welded steel construction.
- Capacities from 15,000 to 90,000 pounds.
- Rectangular or flared design.
- Box understructure for strength and safety.
- Heavy-duty locking rings for safe, secure positioning.
- Lifting loops fold flat into recessed pockets. *Speedy Board*® option (p. 5) available. Can also add lifting chains.
- Rail boards are custom designed and built to match the specific dock conditions. Worksheet required prior to manufacturing to ensure proper fit.
- Designed for use on all types of rail cars including refrigerated and special cars for the lumber and paper industries.



R

All rail board applications are factory quoted upon receipt of a fully completed Rail Board Worksheet (located on the literature page of our website).



FLARE OPTIONS

RAIL BOARD PLACEMENT

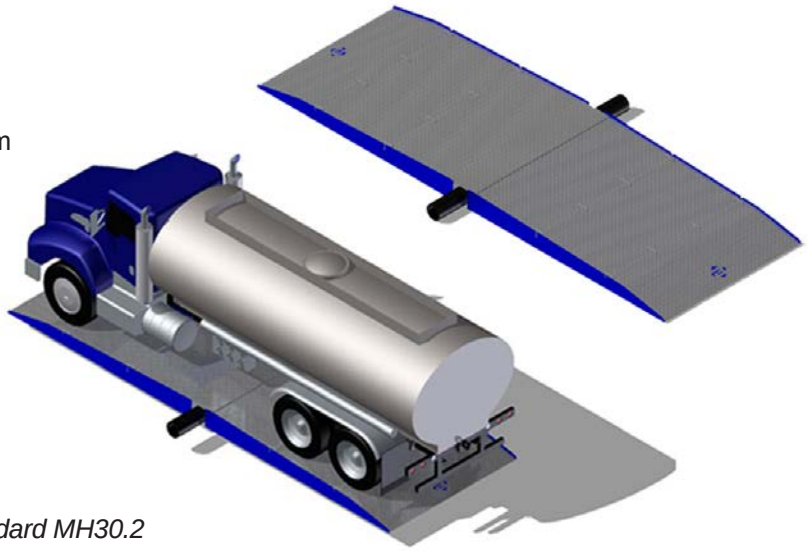
LOCKING RING DESIGN

UNDERSTRUCTURE

FRACKING RAMP **Model COR**

Hydraulic fracturing is a fast growing industry. Bluff's Fracking Ramps are engineered to protect exposed pipes, cables and hoses at fracturing sites. Our custom steel crossover ramps can accommodate the vehicles and industrial equipment that cross over pipes, hoses and cables at fracturing sites.

- 160,000 pound capacity.
- Custom higher capacity ramps are also available
- 25,000 pound capacity per axle
- Tunnel-like pass through for pipes, hoses, or cables
- Custom specifications available



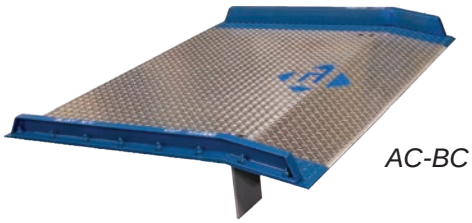
Manufactured and tested in compliance with ANSI Standard MH30.2

DOCK BOARDS AND DOCK PLATES

Aluminum products are ideal for low to medium volume dock loading application. Aluminum is a great solution for use in coastal areas or the frozen food industry where humidity and/or moisture is present. Bluff dock boards and dock plates are manufactured and tested in compliance with ANSI Standard MH30.2.

ALUMINUM DOCK BOARD **Models AC & BC**

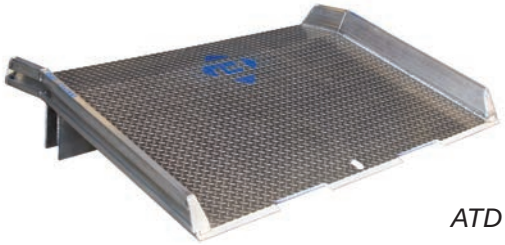
- 10,000 and 15,000 pound capacities.
- Full-length structural steel bolt-on curbs for increased strength and to prevent runoff.
- Locking legs provide secure positioning.
- Standard lip length for conventional trailers is 11”, option of 14” for refrigerated applications.
- Widths from 60” to 72”, and lengths from 36” to 96”.



AC-BC

ALUMINUM DOCK BOARD **Model ATD**

- Designed for light duty in low to medium volume applications with a forklift or pallet jack.
- Welded aluminum construction with extruded curbs and legs.
- Capacities of 10,000 and 15,0000 pounds.
- Lengths ranging from 36” to 72”. Locking legs in lengths from 8” to 13”.

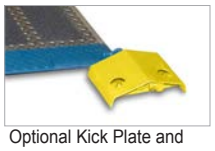


ATD

ALUMINUM SPRING LOADED DOCK PLATE **Model SL**

- Recommended for loading applications involving hand trucks/dollies and pallet jacks.
- Top-of-dock mounted, vertically stored. Dual spring lift assist.
- Optional Kick Plates and Non-Skid Tape surface available.

SL

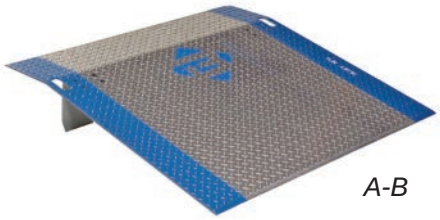


Optional Kick Plate and Non-Skid Tape

Patent No. D633,684

ALUMINUM DOCK PLATE **Models A & B**

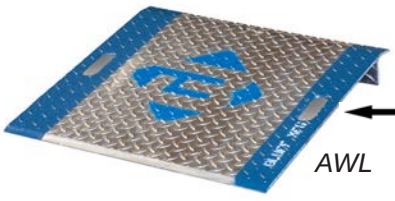
- Recommended for light activity, non-powered loading applications.
- Bolt-on steel legs for securing between the dock and the trailer.
- Standard lip length for conventional trailers is 11", option of 14" for refrigerated applications.
- Available in two capacity ranges. Wide range of sizes available.



A-B

GAS CYLINDER RAMPS **Models AWL & AWC**

- For the safe distribution of specialty gas cylinders on and off pallets.
- Used to manually maneuver cylinders with ease and control
- Light enough to be moved by hand yet strong enough to accommodate heavy cylinders.
- ANSI MH30.2 rated.



AWL

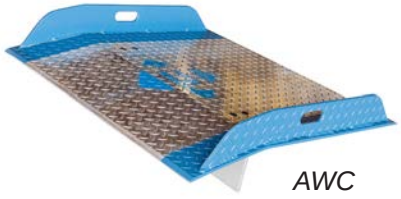
AWL and AWC plates have hand-hole cutouts for easy lifting and maneuvering.

Model AWL

- Capacities from 2,313 lbs. to 4,720 lbs.
- Engineered to pallet height.
- Welded on full length leg.

Model AWC

- Welded 3/8” thick curbs on both sides for added control
- Capacities from 1,453 lbs. to 4,383 lbs.



AWC

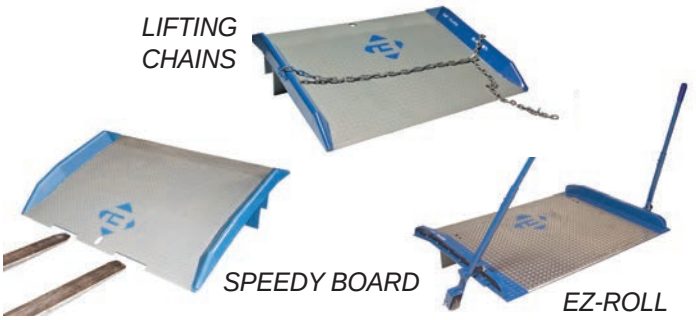
DOCK BOARD SELECTION GUIDE

OPTIONS AVAILABLE

EZ-Roll Attachment: One person positioning without the use of a forklift. Telescoping handle stores away while board is in use.

Lifting Chains: For positioning of board by forklift.

***Speedy Board*® Cutouts:** Allows the forklift driver the ability to move, place, and retrieve the board without exiting the forklift. For boards only. Suited for forklifts with tapered, tilting tines.



SELECTION GUIDE

When making dock board and/or dock plate selections, consider the extremes rather than the averages.

CAPACITY

PLATES

- Weight of equipment and heaviest load.

BOARDS

- See chart:

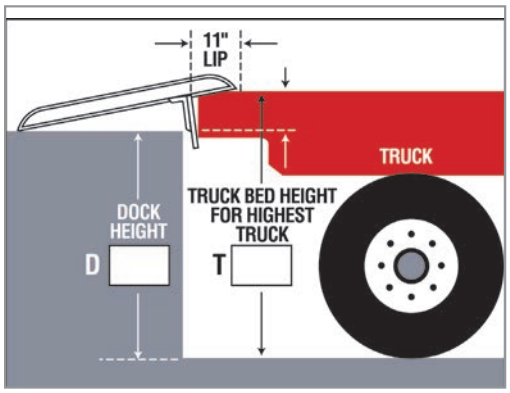
CAPACITY SELECTION CHART		
4-Wheel Forklift Lifting Capacity	**3-Wheel Forklift Lifting Capacity**	**Board Capacity Required**
2,000 – 3,000	2,000	10,000
3,000 – 4,000	2,500	13,000
5,000	3,000 – 3,500	15,000
5,000 – 6,000	4,000 – 5,000	20,000

- Capacity rated for single-shift operation at a 3 mile per hour maximum rate of travel.
- Stackers and other narrow aisle loaders should not be used on a dock board.
- Paper roll clamp and multi-shift loading add 5,000 pounds to the board capacity.

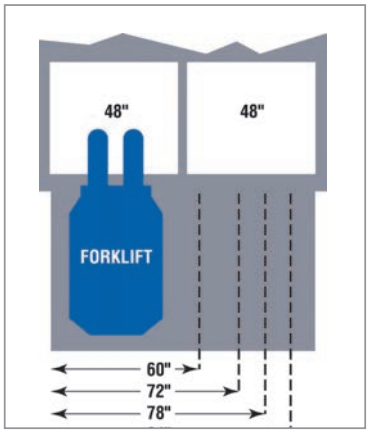
LENGTH

To determine the proper length of a dock board/plate, three items are required:

1. Dock height (D)
2. Height of highest truck and lowest truck (T)
3. Gradeability of loading equipment used.



MAXIMUM TRAILER HEIGHT SERVED	
Freight Line Trailers	46” - 56”
Flatbed Trailers	50” - 60”+
Bob Tail Trucks	46” - 48”
Containers	56” - 62”
Refrigerated Trailers	50” - 60”



WIDTH

Bluff recommends a minimum product width of 12” to 18” wider than the overall width of the vehicle or pallet used. For improved end loading efficiency, you may consider increasing board width, as shown in the diagram (on right).

YARD RAMPS

A safe and cost effective answer to many loading dock issues. Yard ramps are typically used in ground-to-dock or ground-to-truck applications.

STEEL YARD RAMPS **Model SYS**

- All-steel welded construction.
- Standard capacities:16,000 to 90,000 pounds. Other sizes available.
- Curbs 8" tall for safety and greater capacity.
- Beveled approach provides a smooth transition.
- Solid 18” rubber tires provide excellent traction without worry of puncture. Pneumatic tires optional.
- Double-acting hydraulic pump to adjust the portable unit to the proper position.
- Portable 36’ unit includes a 6’ level-off for loading and unloading end pallets.
- Lip purchase into trailer is 16".
- Capacity of yard ramp selected must be greater than the combined weight of the heaviest forklift and the heaviest weight of anticipated loads it will carry.
- The width should be at least 15” wider than the widest equipment to be used on the ramp. Usable width is 6” less than overall width.
- Stationary ground-to-dock ramps are secured to the dock by chains or optional dock chain brackets, and are sold without undercarriage for fixed placement.

OPTIONS AND ACCESSORIES

- Ramp clamp or tow bar is included as standard equipment.
- Pneumatic tires are available for use on uneven surfaces.

Portable Yard Ramp with undercarriage and 6’ level-off for ground-to-truck use.

30’ straight Yard Ramps with no undercarriage and no level offs are available for stationary ground-to-dock use.

MAXIMUM & MINIMUM SLOPES, LIP HEIGHTS, LIP LENGTHS				
Length & Configuration	**30’ Straight Incline**	**30’ Level-Off**	**36’ Straight Incline**	**36’ Level-Off**
Wheel Diameter	18”	18”	18”	18”
Maximum Usable Lip Height	72”	63”	74”	67”
Percent of Grade	23%	23%	19.3%	19.3%
Degrees of Incline	13.0°	13.0°	10.9°	10.9°
Minimum Usable Lip Height	40”	32”	42”	33”
Percent of Grade	11.6%	11.8%	10.1%	9.2%
Degrees of Incline	6.2°	6.2°	5.3°	5.3°

YARD RAMP FEATURES AND OPTIONS

RAMP CLAMP

- Assists operator in moving the yard ramp over short distances.
- Forklift tine inserts into the swiveling lift loop and is secured by a locking device.


RAMP CLAMP

TOW BAR

- Tow bar features a fast-locking, easy hook-up to the yard ramp and makes towing over longer distances practical.
- A quick disconnect feature improves handling efficiency.


TOW BAR

GIRDERS

- Heavy-duty formed steel side girders provide main load-bearing capability.
- Steel side girders welded to steel Z cross members form a superior frame.


GIRDER

HYDRAULIC PUMP

- Hydraulic system allows for smooth and quick raising of the front lip to the proper dock or trailer height.
- The pump is mounted internally to protect it from accidental damage.
- Double-acting.
- Two hydraulic cylinders.


HYDRAULIC PUMP

GRATING

- Self-cleaning, serrated grating provides excellent traction and the open design prevents build-up of water, snow, oil, grease, and miscellaneous debris.
- The lower end approach plate provides maximum support and smooth transition onto the ramp grating surface.
- Note: Grating not supportive of forklift turning maneuvers.


GRATING

MINI RAMPS **Model MR**

- All-steel construction with no undercarriage.
- Mini-Ramp available in 15’ and 18’ lengths
- Mini Ramp widths from 70” to 84”.
- Capacities from 12,000 to 30,000 pounds.
- Services heights from 16” to 32”.
- Optional mobility package includes two screw jacks with steel casters.

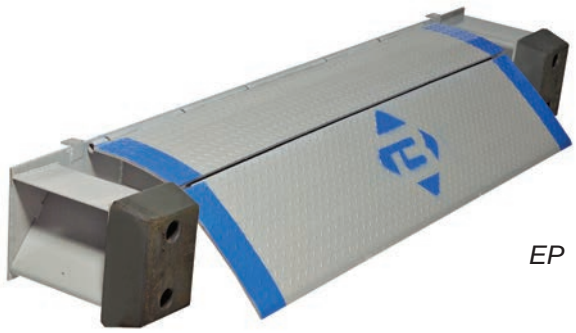
DOCK LEVELERS

Fast and easy to operate, Bluff's Edge-of-Dock Leveler is positioned by lifting a self-storing handle and pulling the handle to the dock floor. The latch assembly activates the lip, moving it forward to the floor of the trailer as the handle is lifted. When released, the handle automatically returns to a stored position.

EDGE-OF-DOCK LEVELER WITH EZ PULL HANDLE

EDGE-OF-DOCK LEVELER **Model EP**

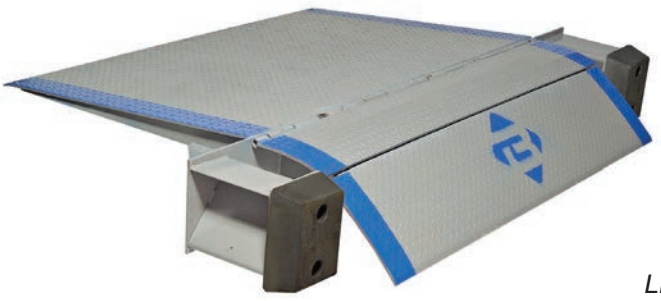
- Positioned by lifting a self-storing handle and pulling the handle to the dock floor. (See illustration above.)
- Hydraulic option available.
- Latch assembly activates the lip forward to the floor of the trailer as the handle is lifted.
- Automatically returns to stored position when truck leaves.
- Bumper and bumper blocks are included.
- Steel faced bumpers available.
- Capacities from 20,000 to 30,000 pounds.
- Widths of 66", 72" & 78".
- Refrigerated lip optional.
- Working range of 5" above and 5" below dock.



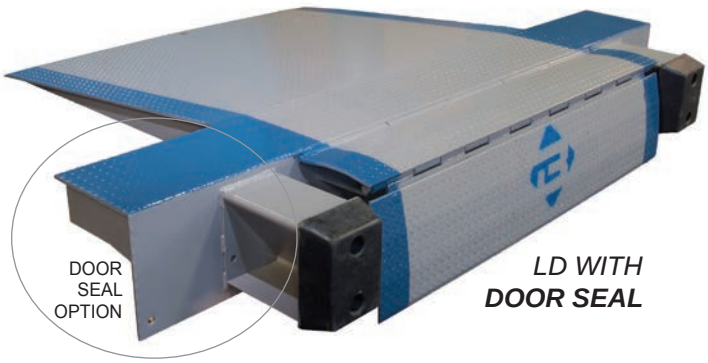
EP

LO-DOCK LEVELER **Model LD**

- Raises Edge-of-Dock Levelers to proper working height.
- Working range of 5" above and 5" below dock.
- Raise present dock height as much as 11" without expensive alterations.
- Completely assembled; no site welding required.
- Easily installed on any concrete dock without welding or modifications.
- Capacities from 20,000 to 30,000 pounds.
- Hydraulic option available. Anchor kit also available.
- Because of gradability problems, dock levelers are not recommended for use with pallet jacks or stackers.
- Refrigerated lip is optional.
- Lo-Dock Leveler is available with Door Seal Option.
- Completed worksheets ensure proper fit and function.



LD



LD WITH ***DOOR SEAL***

WHEEL RISERS & PLATFORMS

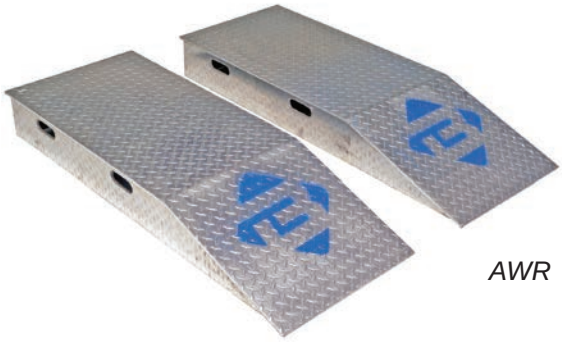
WHEEL RISERS

- Eliminate unsafe, below dock loading conditions.
- Reduce damage to loading equipment.
- Position trailers properly above dock for more efficient loading.
- Heights up to 12". Widths of 18” and 24”.
- Lengths to accommodate both single, dual, or tandem axle trailers.
- Wheel risers can be portable or permanently positioned.
- Custom sizes available.
- Completed worksheets ensure proper fit and function.

SWR

STEEL WHEEL RISERS **Model SWR**

- Tabs for anchoring



AWR

ALUMINUM WHEEL RISERS **Model AWR**

- Hand holds for easy moving.

STEEL PLATFORMS **Model SP**

- Affords 90 degree turnability for safe forklift maneuvering.
- Fast, economical way to expand your dock area and increase freight handling capabilities without the expense of site or concrete work.
- Optional adjustable, telescoping legs of 44” to 55” allow elevations to meet most dock height requirements.
- Steel platforms can easily be relocated to other areas where a free-standing loading dock may be needed.
- Completed worksheets ensure proper fit and function.

SP

PLATFORM SHOWN WITH OPTIONAL HANDRAILS AND FLIP PLATE

YARD RAMP SHOWN WITH STEEL PLATFORM

CRASH GUARD SAFETY BARRIERS

Improve plant safety and efficiency with Crash Guard by reducing the costs associated with employee injury, machinery down time, insurance claims, and building repairs due to accidental collisions.

TUFF GUARD SAFETY RAIL **Model TGR/TGP**

- Installs in minutes with ordinary hand tools and concrete drill.
- Formed 10 gauge steel rails in lengths up to 12'.
- Rails can withstand impacts of 10,000 pounds traveling at six miles per hour.
- Base plates are 8" square x 1/2" thick steel.
- Fasteners are included. 5/8” anchors provided.
- Rounded top rails will prevent injuries and provide added personnel protection.

Original Crash Guard design available. Call for information.

SRT

MODULAR PROTECTIVE BARRIER
Model MPB

- Inexpensive and simple answer to solving difficult safety barrier protection problems in your plant.
- Simple to install, add-on or customize guardrail lengths in the field.
- Light-weight “lift out” design allows temporary access to specific areas quickly and safely
- 42” double guardrail meets OSHA guidelines for fall protection.
- Formed 11 gauge steel rails in lengths up to 10’.
- Installation hardware not included. 1/2” anchors recommended.

MPB

BOLLARD **Model SRB**

- Protect personnel, machinery and structures.
- Simply bolt into position–no concrete work required.
- 36” or 42” high, 6” I. D. sch 40 pipe.
- 10” x 10” x 5/8” base.
- Plastic Cap.
- 3/4” mount holes.

SRB

Safety Yellow | Gloss Orange | Blue Ribbon | Gloss Black

All Crash Guard Safety Products come standard with a Safety Yellow powder coat finish. Available in four standard colors, custom colors, and galvanized finish.

CRASH GUARD SAFETY BARRIERS

DOOR TRACK PROTECTORS
Model DG & DG48-3

Protects overhead door tracks from damage. Wrap-around track design for free door operation. Chamfered edge for reduced risk of injury when lowering door. 3/16” thick steel.

- DG has 3/8” x 10” x 10” steel base plate with 5/8” holes (fasteners not included). 1/2” anchors recommended.
- DG can be fastened to both floor and wall.
- DG48-3 has 1/4” x 6” x 6” steel base plate and only fastens to floor (fasteners not included).
- DG48-3 is a smaller lighter model that allows for tighter fit around door track.

DG

DG48-3

POST PROTECTOR **Model PO**

- Various thickness protections available in 1/4", 3/8" and 1/2".
- Height protection available in 12", 18" and 24".
- Standard models fit around rack posts up to 4" wide.
- Fasteners not included. 1/2” anchors recommended.

PO

BOLT-ON POST PROTECTOR **Model CP**

- 42” standard height with any height available.
- Easily installed. No anchoring necessary.
- Bolts directly to column for additional column reinforcement.
- Excellent column reinforcement for damaged posts.

CP

BULLNOSE POST PROTECTOR **Model CPBN**

- Protects rack columns from damage.
- Easily installed. Bolts to column (floor anchors optional).
- 24” – 42” height column protection.
- Bolts directly to column (floor anchors optional).

CPBN

RACK GUARD **Model RG**

- A simple and inexpensive way to absorb fork truck impact that can damage pallet rack uprights and valuable product.
- Heavy duty design. Bolted to floor for extra stability.
- Wrap-around feature protects rack from both front and aisle damage.
- Hardware kits available upon request (1/2” anchors).

RG

MACHINE GUARD **Model MG**

- Fully welded unit creates barriers between traffic areas and valuable machinery.
- Heights available in 10”, 24”, and 42” sizes.
- 4” square steel tubing with 1/2” x 8”x 8” base plates.
- 5” square steel tubing comes with 1/2”x10”x 10” base plates.
- Quick and easy installation.

MG

MEZZANINE STRUCTURES

- Non-welded bolt connections and flexibility of design allow for future modifications, relocation and/or expansion and potential reconfiguration.
- Equipment and machinery mounting options available; multi-tiered integration of existing structures.
- Maximization of vertical clearance for exceptional under-mezzanine space utilization.
- High quality design and standardization of components to keep installation costs down.

General Mezzanine Specifications

- Free-standing, pre-fabricated structure. Requires no on-site welding.
- Registered Structural Engineer to supervise or approve all designs and details.
- Engineering (PE) seal on final drawings where applicable.
- Pre-fabrication drawings submitted for approval.
- Structural design in accordance with the American Institute of Steel Construction (AISC) Manual of Steel Construction.
- Joist Construction performed in accordance with the Steel Joist Institute (SJI).

MULTI-TIERED MEZZANINE STRUCTURE

Decking Options

There are several options available for decking (bar grating, B-deck, wood). Special options include swing gates, stair-ways and work platforms, drop plates, custom openings, horizontal handrails and conveyor support systems.

CONVEYOR CROSSOVERS AND STAIRWAYS

CONVEYOR CROSSOVERS

Bluff's goal is to provide you with crossover solutions which maximize the efficiency of your operations and minimize the costly potential of injury by keeping your personnel safe.

Conveyor Crossover Specifications

- Welded steel construction for longer life cycle and lower maintenance costs.
- Customization of capacities and configurations, specific widths and vertical clearances.
- Alternate configurations including U-shaped, Z-shaped and L-shaped with intermediate landings where necessary.

STAIRWAYS

Bluff starts its product planning with an assessment of your stairway application needs. Our professional engineers then develop a plan which can either be integrated into your existing installation or can be a new, freestanding installation. All stairways systems are IBC, UBS and OSHA compliant.

Stairway Specifications

- 36" standard width. Customization available.
- Tread options: bar grate or diamond plate.
- Closed risers.
- Custom sizes and configurations: straight, L-Shaped and U-shaped runs with intermediate landings.
- Stair tower systems are designed to meet your exact height and space requirements.
- Stringers with welded handrail. Treads bolt between stringers.
- Bolt-on grip rail.

LANDINGS

If you have a vertical rise exceeding 12 feet, you must have an intermediate landing. Bluff will actively work with you to design and develop the most functional and efficient stair system possible within your space constraints. Landings can be provided with stairs or sold separately.

Landings Specifications

- Fixed handrail in compliance with applicable code.
- Gate options for platform landing.
- Custom sizes and configurations (straight, L-shaped and U-shaped runs).
- Top landings available for specific ingress/egress requirements.
- Choice of decking material. (See page 12 for decking options.

LADDERS

Design applications include simple fixed ladders, caged and uncaged ladders as well as ships ladders. All Bluff ladders are designed and constructed in compliance with OSHA and ANSI Standards.

Straight Ladders

- All-welded steel.
- Require caging when heights exceed 20’.
- Intermediate landing required when over 30’.
- Rungs are 3/4” serrated round rebar.
- Handrail extends 42” above top rung.

Ships Ladders

- Bolted steel.
- No caging requirements.
- Intermediate landing required when over 12’.
- Tread depth of 6”, width up to 36”.
- Ladder with 36” grip rail, handrail 42” above top tread.
- Three piece construction consisting of 2 stringers with welded grip rail and bolted treads.

CANTILEVER RACK

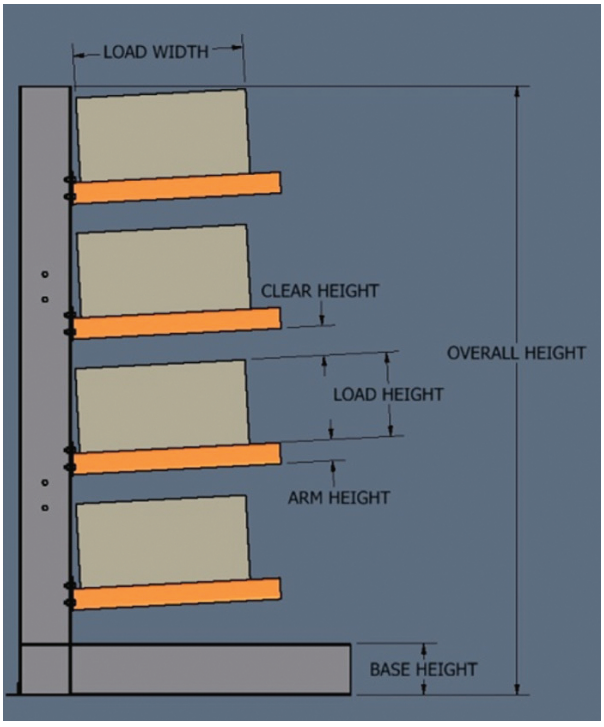
- Minimize footprint of storage space while maximizing vertical and horizontal space usage.
- Capitalize on the higher lifting capacity and operational capability of current lifting equipment.
- Reduce handling time and enhance efficiency of inventory control/management through improved accessibility to storage space.
- Minimize cost of damaged product from storage structure obstacles.

Arms

- The capacity of a cantilever rack is based on the upright height and the length of the arms.
- Cantilever arms are either straight (used for stable loads such as lumber, steel sheets, cartons, etc.) or inclined (used for cylindrical objects or loads which tend to roll forward).
- Arms are completely adjustable on 4” centers. Arms are welded to a mount plate which is then bolted to the upright.

Upright Column

- Upright column height takes into consideration the limitations of ceiling height and ceiling conditions such as sprinkler system, lighting fixtures, etc. as well as the reach of your lifting equipment.
- High strength steel columns are either Single-Sided or Double Sided and range in height from 8’ to 20’
- Columns are pre-punched with 4” centered arm mounting holes.



Cantilever Base

- Cantilever base has a factory option of either being completely welded construction or bolt-on construction. Both options provide a stable, rigid base connection.

Brace

- Bracing between uprights allows for continuous rows for longer stock and for uninterrupted loading and unloading.

Options

- Material Tray – used as a product pan for loosely stored items of varying sizes.

BLUFF MANUFACTURING

- Since 1968, the proven leader in quality dock and warehouse equipment
- Short lead times on manufactured items with 99% on-time shipping
- Quick ship items stocked in regional warehouses