



1. Product Name

■ NOVA Dock Seals

- ForeverSeal Foam Pad (FP)
- ForeverSeal Foam Pad Hood (FPH)
- Foam Pad (FP)
- Foam Pad Hood (FPH)
- Foam Pad Universal (FPU)
- Foam Pad Hood Universal (FPHU)
- Dairy Seal

■ NOVA Dock Shelters

- Rigid Frame (RF)
- Soft Sided (SS)
- Gap Sealer (GS)
- Rain Deflector Extreme (RD)

2. Manufacturer

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3. Product Description

General Description

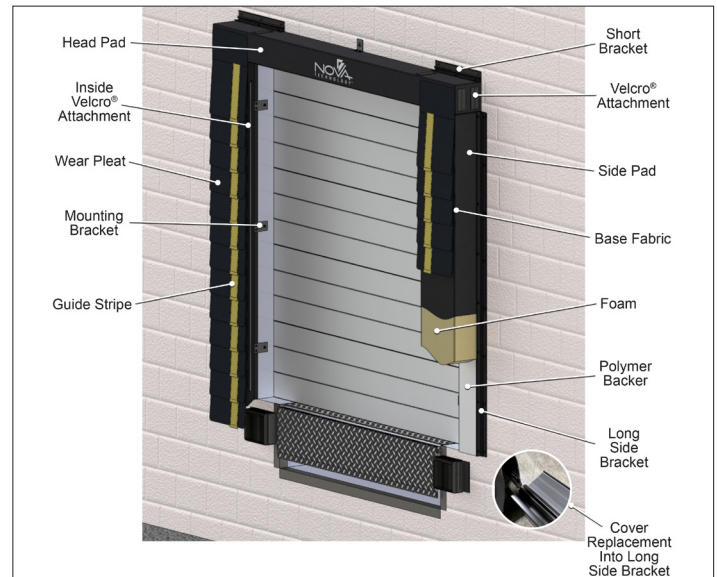
NOVA Dock Seals and Shelters are designed to protect loading areas against snow, rain, rodents, dust and other contaminants. By sealing the opening around a trailer, they also provide maximum energy savings by preventing drafts and can lower heating/cooling costs.

NOVA Dock Seals and Shelters are cost effective and can pay for themselves with the ROI from energy savings in less than two years. They offer exceptional versatility and can accommodate any type of truck. Each Seal and Shelter is custom fit for each dock and comes in a variety of fabric types, weights and colors to choose from.

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ForeverSeal Foam Pad (FP) Series Dock Seal—The ForeverSeal features a patented quick-mount system with a lightweight polymer backer and side bracket. This innovative design allows for the easy replacement of covers without the need to replace the entire seal. The covers simply slide in, wrap around the seal face, and attach securely with Velcro®. If the seal requires replacement, the base structure of the brackets remain mounted on the wall, making a seal replacement simple and efficient.

The foam-filled head pad and side pads provide a tight, energy-efficient seal between the trailer and dock wall for protection against inclement weather, dirt and insect infiltration. Designed for door openings up to 9-feet wide x 9-feet high.



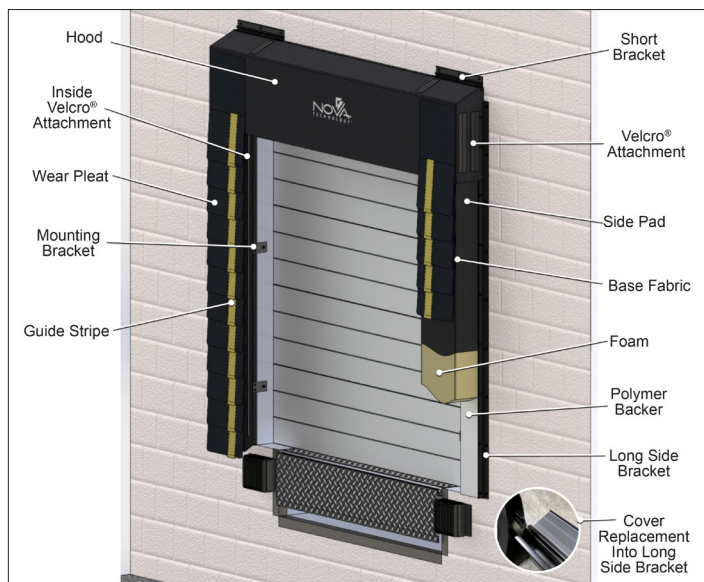
ForeverSeal Foam Pad (FP) Series Dock Seal

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ForeverSeal Foam Pad Hood (FPH) Series Dock Seal—

The ForeverSeal features a patented quick-mount system with a lightweight polymer backer and side bracket. This innovative design allows for the easy replacement of covers without the need to replace the entire seal. The covers simply slide in, wrap around the seal face, and attach securely with Velcro®. If the seal requires replacement, the base structure of the brackets remain mounted on the wall, making a seal replacement simple and efficient.

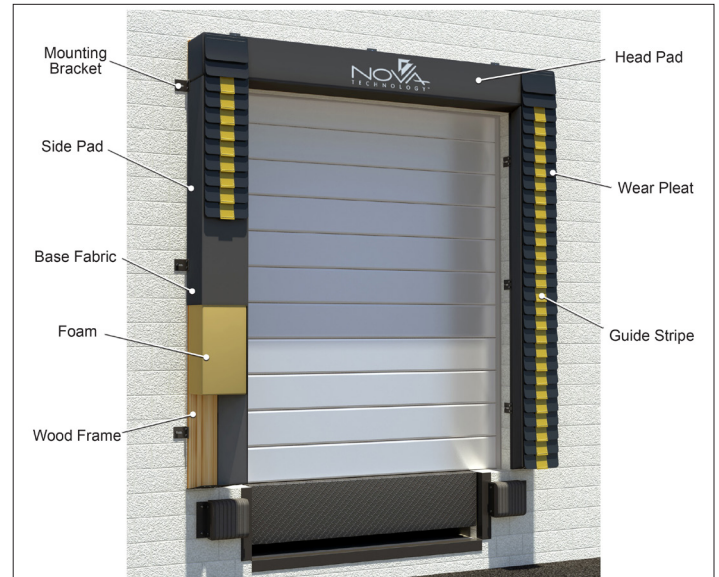
The FPH features a hood-style head curtain in place of a head pad with a metal pipe and fiberglass stays in the fabric hood to maintain support and serviceability. Designed for door openings up to 9-feet wide x 12-feet high.

**ForeverSeal Foam Pad Hood (FPH) Series Dock Seal****Standard Features****ForeverSeal Foam Pad (FP) & Foam Pad Hood (FPH)**

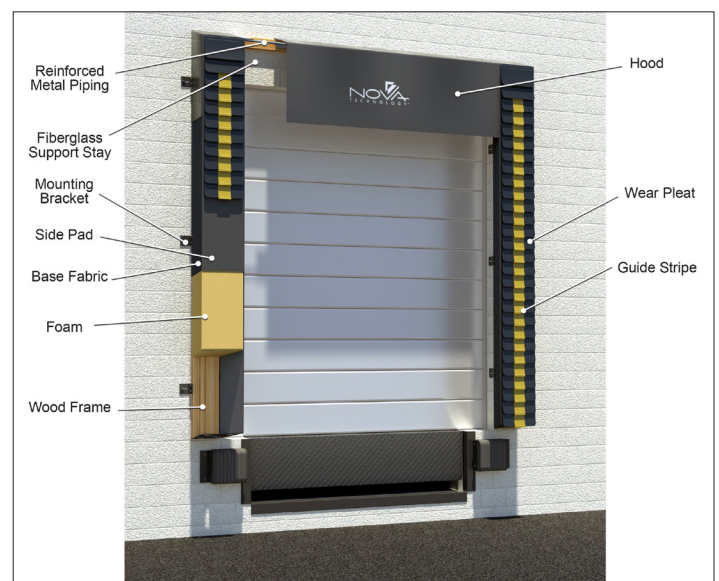
- Available in several top-grade fabric types, weights and colors
- High-density polyurethane foam for added resiliency
- Patented quick-mount system with a lightweight polymer backer and side bracket for easy cover replacement
- Foam is bonded to the backer with high-strength adhesive
- Heavy-duty galvanized mounting hardware
- Ventilation slits ensure proper air circulation
- Full-height yellow guide stripe standard
- Velcro® attachments
- All sew lines are lock-stitched and reinforced with UV-resistant thread

Additional standard features and options available in Table

Foam Pad (FP) Series Dock Seal—the foam-filled head pad and side pads provide a tight, energy-efficient seal between the trailer and dock wall for protection against inclement weather, dirt and insect infiltration. Designed for door openings up to 9-feet wide x 9-feet high.

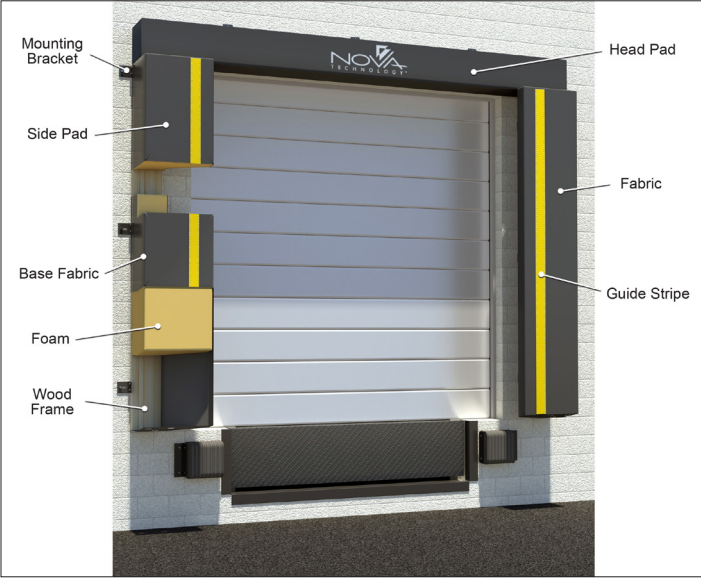
**Foam Pad (FP) Series Dock Seal**

Foam Pad Hood (FPH) Series Dock Seal—features a hood-style head curtain in place of a head pad with a metal pipe and fiberglass stays in the fabric hood to maintain support and serviceability. Designed for door openings up to 9-feet wide x 12-feet high.

**Foam Pad Hood (FPH) Series Dock Seal**

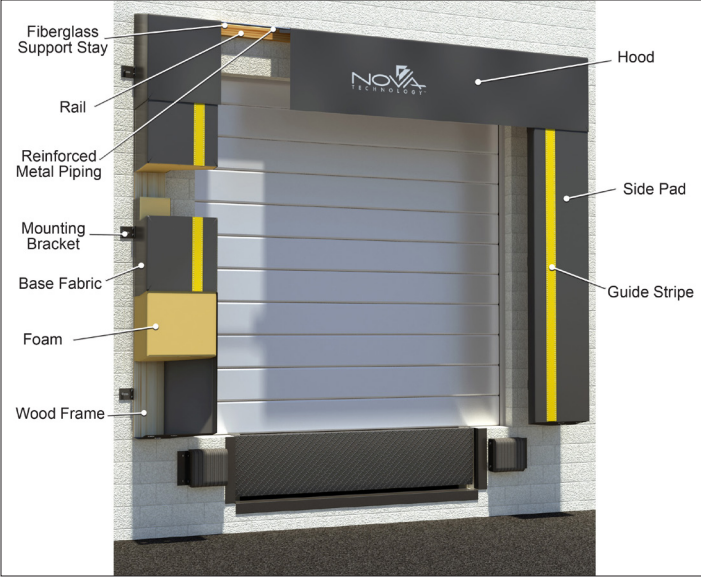
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Foam Pad Universal (FPU) Series Dock Seal—accommodates larger doors and features foam-filled head and side pads that provide a positive seal. The tight, energy-efficient seal between the trailer and dock wall protects the dock from inclement weather, dirt and insect infiltration. Designed for door openings up to 12-feet wide x 9-feet high.



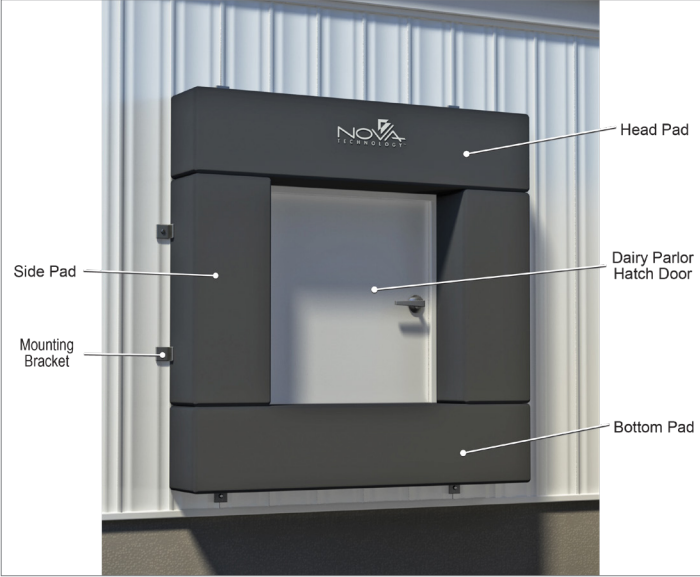
Foam Pad Universal (FPU) Series Dock Seal

Foam Pad Hood Universal (FPHU) Series Dock Seal—features a fabric hood-style curtain and foam side pads. This model accommodates taller doors and provides a positive seal against the truck sides. Designed for door openings up to 10-feet wide x 12-feet high.



Foam Pad Hood Universal (FPHU) Series Dock Seal

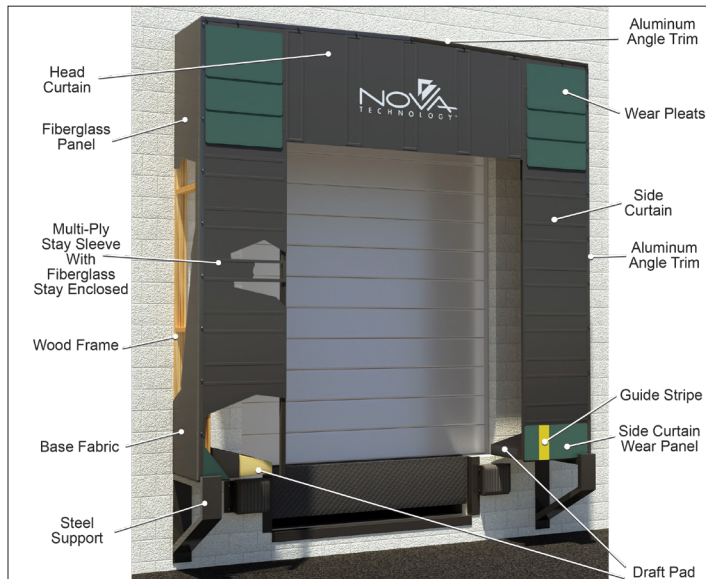
Dairy Seal—designed specifically to enclose a hatch door, this four-sided seal is made for milk tanker trucks to back up against. Milk from dairy cows that has been instantly cooled in holding tanks inside the facility is transferred directly to the tanker. A good seal is necessary to prevent insects, pests and debris from contaminating the transfer process and to meet FDA inspections. Designed to fit any size hatch door.



Dairy Seal

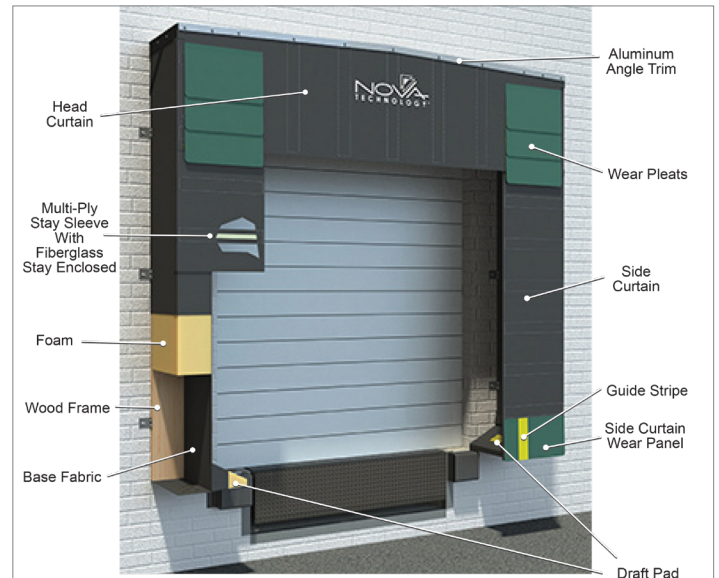
Nova Technology International, LLC

Rigid Frame (RF) Series Dock Shelter—provides 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, protective corner reinforcement pleats, wind retention straps and a 36-inch drop head curtain with fiberglass stays. The raked header with 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.



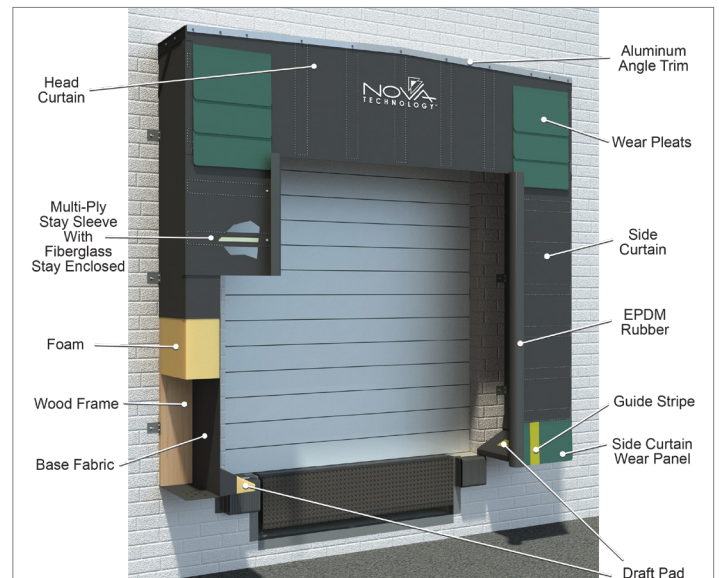
Rigid Frame (RF) Series Dock Shelter

Soft Sided (SS) Series Dock Shelter—provides maximum dock protection and full access to trailers while minimizing pressure on the building wall. The SS Dock Shelter has soft foam sides for added flexibility and is able to compress and bend out of the way of a truck that approaches the doorway off-center or misaligns with the dock. It is designed to be pliable to prevent damage, downtime and costly repairs. Designed for door openings up to 12-feet wide x 12-feet high.



Soft Sided (SS) Series Dock Shelter

Gap Sealer (GS) Series Dock Shelter—engineered for use with swing-door trailers, the GS Dock Shelter seals the air and light gaps at door hinges while still allowing full access into the trailer. This shelter provides maximum dock protection while minimizing pressure on the building wall. Utilizing foam side pads in its construction, the shelter is capable of compressing and bending out of the way of a truck that approaches the dock off-center preventing costly repairs. Designed for door openings up to 12-feet wide x 12-feet high.



Gap Sealer (GS) Series Dock Shelter

Nova Technology International, LLC

Rain Deflector Xtreme (RD) Series Dock Shelter—provides an excellent barrier to water runoff from the tops of trailers entering the building, especially at declined docks. The RD Xtreme is designed for docks that service a wide range of vehicles and can seal most trailer sizes. Designed for versatility, it is compatible with all dock seals and most dock shelters.



RD Series

Operation

Dock seals and shelters can significantly improve the energy efficiency and environment control of buildings, reducing costs. They provide an effective barrier against the elements, keeping loading docks dry, safe and efficient.

Dock seals and shelters also provide a positive seal between internal and external environments. They prevent the passage of dust, insects, exhaust fumes and other airborne contaminants while the loading dock is in use.

Forever dock seals feature a patented lightweight polymer backer and side bracket, complete with a quick-mount design. This innovative design allows for the easy replacement of covers and wear pleats without the need to replace the entire seal. The covers and wear pleats simply slide in, wrap around the seal face, and attach securely with Velcro®.

Structural

NOVA dock seals are constructed from high-density polyurethane foam, solid wood or lightweight rigid PVC (ForeverSeal). We offer a variety of cover materials in different fabric types, weights and colors. All options are top-grade fabrics to provide superior performance and maximum durability.

The RF Series dock shelter is the best economical option, with solid wood frames and fabric curtains. The SS and GS dock shelters have high-density polyurethane foam for flexibility and resiliency to damage, with a head frame and wood backing made from solid wood. All series of dock shelters come in a variety of top-grade, abrasion-resistant fabrics with translucent fiberglass panels.

Table 1—Dock Seal Features and Options

Features	Series					
	ForeverSeal FP	ForeverSeal FPH	FP	FPH	FPU	FPHU
Ventilation slits ensure proper air circulation	Yes	Yes	Yes	Yes	Yes	Yes
Velcro® brand attachments	Yes	Yes	Yes	Yes	Yes	Yes
Lock-stitched seams with high tensile strength polyester filament thread provides excellent weather resistance	Yes	Yes	Yes	Yes	Yes	Yes
Chain-weighted drop curtain standard	—	Yes		Yes		Yes
Fiberglass support stays maintain a proper head curtain slope for adequate drainage	—	Yes	—	Yes	—	Yes
Metal pipe inserted into top of hood provides support to resist rain/snow build-up	—	Yes	—	Yes	—	Yes
Standard 24-inch drop on hood	—	Yes	—	Yes	—	Yes
Standard side pad projection is 10-inches	Yes	Yes	Yes	Yes	—	—
Standard side penetration is 12-inches	—	—	—	—	Yes	Yes
Standard head pad projection is 10-inches	Yes	—	Yes	—	Yes	—
Pressure treated, kiln dried wood frame	—	—	Yes	Yes	Yes	Yes
Patented quick-mount system with a lightweight polymer backer and side bracket for easy cover replacement	Yes	Yes	—	—	—	—
Replaceable cover with wear pleats	Yes	Yes	—	—	—	—
Available in several top grade fabric types, weights, and colors	—	—	Yes	Yes	Yes	Yes
Options						
Multi-layer, reinforced wear pleats the full height of side pads and corners of head pad provides maximum protection to extend life of the seal	Yes	Yes	Yes	Yes	Yes	Yes
Top corner pleats on head pad only	Yes	—	Yes	—	Yes	—
Wear face reinforces the entire contact surface of the side pad for greater durability	Yes	Yes	Yes	Yes	Yes	Yes
Scuff guards protect the inside of side pads from freight	—	—	Yes	Yes	Yes	Yes
Bottom flaps	Yes	Yes	Yes	Yes	Yes	Yes
Weighted drop curtain to enable a more effective seal for lower trailers	Yes	—	Yes	—	Yes	—
Pull rope system enables the curtains to be adjusted to effectively service varying trailer heights	Yes	Yes	Yes	Yes	Yes	Yes
Tapered units provide a uniform seal when accommodating an inclined or declined drive approach	Yes	Yes	Yes	Yes	Yes	Yes
2-inch foam-filled drop curtains	Yes	—	Yes	—	Yes	—
Flame-retardant foam and fabric meets the California State Title 19 and NFPA-701 standards	Yes	Yes	Yes	Yes	Yes	Yes
24-inch high yellow guide stripes for accurate truck positioning	Yes	Yes	Yes	Yes	Yes	Yes
Blockouts for extra protection when full projection foam is not achieved	—	—	Yes	Yes	Yes	Yes
Galvanized steel backing	—	—	Yes	Yes	Yes	Yes
Weighted hood to enable a more effective seal for lower trailers	—	Yes	—	Yes	—	Yes
2-inch foam-filled hood seals between side pads	—	Yes	—	Yes	—	Yes
Top corner pleats on hood only	—	Yes	—	Yes	—	Yes

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Safety Features

Dock seals and shelters help avoid safety and productivity problems associated with unprotected openings, such as:

- Employee discomfort
- Energy loss
- Theft or security concerns
- Product damage or contamination
- Insect infiltration
- Slippery or dangerous dock conditions

Standard Features

Dock Seals

- Available in several top-grade fabric types, weights and colors
- High-density polyurethane foam for added resiliency
- Foam is bonded to the entire contact area of the frame to ensure maximum structural integrity
- Mounting brackets are protected with a heavy-duty galvanized, rust-resistant coating; bolts are included
- Full-height, yellow guide stripes assist driver with proper vehicle positioning

Additional standard features and options available in Table

Dock Shelters

- Available in several top-grade fabric types, weights and colors
- Raked header with translucent fiberglass top provides natural light, permits water drainage, and provides snow and ice load support
- Face curtains have fiberglass stays for added rigidity
- Aluminum angle face edging
- Protective wear pleats on the head curtain extends the life of the unit
- Wind straps on head curtain keep the head curtain from being blown out of position
- Select grade pressure-treated, kiln-dried wood side (RF Series) and head frame
- Mounting brackets are protected with a heavy-duty galvanized, rust-resistant coating; bolts are included
- All sew lines are lock-stitched and reinforced with UV-resistant thread
- 15-inch yellow guide stripes assist driver with proper vehicle position
- High-density foam provides long life and resiliency (GS, RD and SS Series)
- Detachable side curtains and draft pads have Velcro® for easy removal (SS and GS Series)

Optional Features (Shelters)

- RF Shelter projection—24 inch standard, customizable to any projection
- SS and GS Shelter projection—18 inch standard, customizable to any projection
- 2-inch foam-filled front head curtain
- Hook-and-loop splits on head curtain
- Head curtain drop over 54 inches
- Frame cut-outs for obstructions
- Non-projecting frame (RF Series Model Only)
- Common member units
- Ground-level units
- 18-oz white vinyl on frames (RF Series)
- Tapered units for inclined/declined approaches
- Pull rope adjusts the head curtain to service various trailer heights
- Flame-retardant fabric meets the California State Title 19 and NFPA-701 standards
- Full-height yellow guide stripes for accurate truck positioning
- Chain-weighted drop curtain
- Steel frames (RF Series) and backings (SS and GS Series)
- False header option for doors over 12-feet tall
- Spring steel stays instead of fiberglass stays

Table 2—Properties of Fabrics

Fabric	Abrasion Resistance Cycles		Tensile Strength (lbs./inch)		Tear Strength (lbs. width × length)		Cold Resistance at 40 degrees F	
	FS 5306	ASTM D3384	FS 5100	ASTM D5034	FS 5134	ASTM D2261	FS 5874	ASTM D2136
NOVA MAX-1000™	65000		1000 × 1000		200 × 200		Pass	
NOVA MAX-60™	3000		950 × 850		160 × 130		Pass	
40 oz. NOVALON™*	1500		400 × 350		50 × 40		Pass	
16 oz. NOVALON™*	100		400 × 350		50 × 40		Pass	
40 oz. Vinyl	3000		900 × 850		160 × 130		Pass	
22 oz. Vinyl	1850		695 × 650		120 × 100		Pass	

Available Fabrics

- NOVA MAX-1000™—heavy-duty polyester-based fabric with a polymer blend coating for maximum durability for high-traffic docks, resulting in the highest puncture, tear and abrasion resistance of any fabric in the industry
- NOVA MAX-60™—heavy-duty polyester-based fabric with a polymer blend coating on both sides, with 60% of the coating on the outside surface for greater wear resistance
- 40 oz. NOVALON™*—nylon woven base with a synthetic elastomer coating on both sides
- 16 oz. NOVALON™*—nylon woven base with a synthetic elastomer coating on both sides
- 40 oz. Vinyl—woven polyester-based fabric with a vinyl coating on both sides
- 22 oz. Vinyl—woven polyester-based fabric with a vinyl coating on both sides

Additional information about fabrics is available in Table 2.

*NOVALON is the equivalent replacement for Hypalon®. Hypalon® is a trade name used by DuPont and is no longer available.

Flame-Retardant Fabrics

Many of our fabrics offer optional flame-retardant designs. These fabrics are engineered or tested to the strict standards of the California State Title 19 and NFPA-701. These flame-retardant fabrics are designed to self-extinguish a flame in two seconds or less once the source is removed.

Recommended Safety Equipment for Dock Seals and Shelters

The NOVA Truck Lock™, Lock & Load™ and Lock Up™ vehicle restraint systems help prevent unexpected trailer departure from the loading dock and minimize trailer creep during the loading/unloading process.

4. Technical Data

Applicable Standards

Aerospace Materials Specification (AMS)

- AMS-QQ-A-200/16—Aluminum Alloy T6—Extruded Structural Shapes

American Society for Testing Materials (ASTM)

- ASTM A53—Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
- ASTM D751—Standard Test Methods for Coated Fabrics
- ASTM A879—Standard Specification for Steel Sheet, Zinc Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface
- ASTM D2136—Standard Test Method for Coated Fabrics—Low Temperature Bend Test
- ASTM D2261—Standard Test Method for Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)
- ASTM D3574—Standard Test Methods for Flexible Cellular Materials—Slab, Bonded and Molded Urethane Foams
- ASTM D3884—Standard Test Method for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)
- ASTM D5034—Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
- ASTM D5035—Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)
- ASTM D5512—Standard Practice for Exposing Plastics to a Simulated Compost Environment Using an Externally Heated Reactor

Consumer Products Safety Commission (CPSC)

- CA Bulletin 117—Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture

Nova Technology International, LLC

International Code Council

- ESR-2240 UC3B, ICC-ES Evaluation Report—Exterior construction, above ground, uncoated and poor water runoff

Motor Vehicle Safety Standards

- MVSS302—Flammability of Interior Materials

National Fire Protection Association (NFPA)

- NFPA 255—Standard Method of Test of Surface Burning Characteristics of Building Materials
- NFPA701—Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

Environmental Considerations

NOVA Technology uses environmentally-friendly material in its packaging where available.

5. Installation

Product installation instructions are available online at www.novalocks.com.

6. Availability & Cost**Availability**

NOVA Technology products and services are sold entirely through the NOVA nationwide dealer network.

Cost

Pricing information may be obtained from an authorized NOVA dealer.

7. Warranty

NOVA Technology warrants that all of its manufactured product shall remain free of defects in material and workmanship under normal use for a period of one year from the date of delivery to the purchaser.

8. Maintenance

No regular maintenance is required to keep the Dock Seals and Shelters operating efficiently. At times, it may be necessary to remove excess snow buildup from on top of the header.

All dock seal or shelter headers should be inspected periodically for damage and replaced when needed.

9. Technical Services

Technical assistance, including more detailed information, product literature, test results, project lists, or assistance in preparing project specifications, is available by contacting NOVA Technology.

10. Filing Systems

- Additional product information is available upon request