1. Product Name

- NOVA Dock Seals
  - FP Series
  - FPH Series
  - FPU Series
  - FPHU Series
  - Dairy Seal
- NOVA Dock Shelters
  - RF Series
  - SS Series
  - GS Series

2. Manufacturer

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3. Product Description

General Description

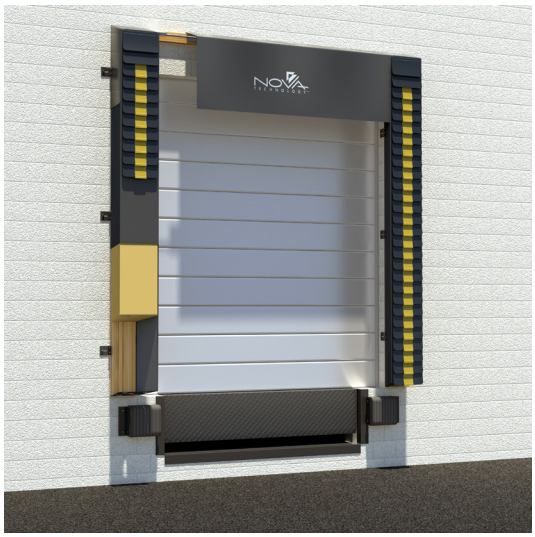
NOVA Dock Seals and Shelters are designed to protect loading areas against snow, rain, rodents, dust and other contaminates. By sealing the opening around a trailer, they also provide maximum energy savings by preventing drafts and can lower heating/cooling costs.

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..

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 opening up to 9 feet wide x 9 feet high.

FP Series

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



FPH Series

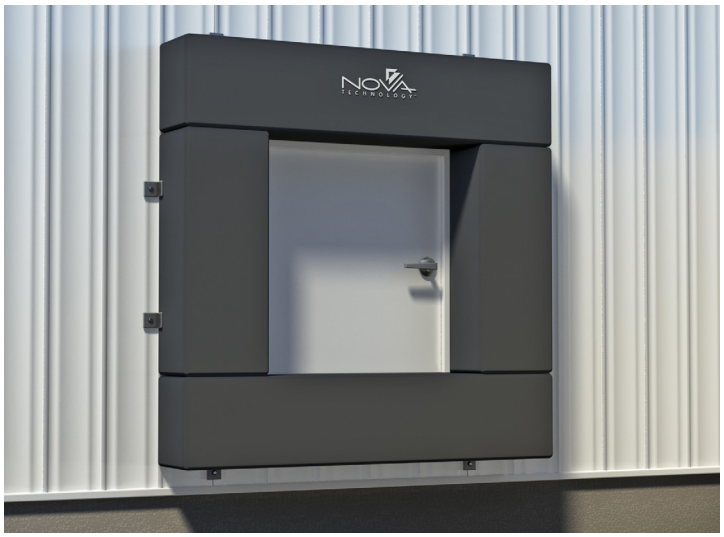
FPU Series Dock Seal—accommodates larger doors and the foam-filled head and side pads provide a positive seal. The tight, energy-efficient seal between the trailer and dock wall protects the dock from inclement weather, dirt and insect infiltration.

FPU Series

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.

FPHU Series

Dairy Seal—designed specifically to enclose a hatch door, this four-sided seal is made for milk tanker trucks to back up against. Compression foam on all four sides of the door creates a positive seal to keep insects, pests and debris from contaminating milk during the transfer process.



Dairy Seal

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.

RF Series

SS Series Dock Shelter—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 doorway. It is designed to be pliable to prevent damage, dock downtime and costly repairs.

SS Series

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. The foam side pads compress and bend out of the way when a truck approaches the dock off-center, preventing costly repairs. Designed for door openings up to 12 feet wide x 12 feet high.

GS Series

WARNING: This product can expose you to chemicals including lead, which are known to the State of California to cause cancer or birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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 dock 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 contaminates while the loading dock is in use.

Structural

NOVA dock seals are constructed from high-density polyurethane foam and solid wood. 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

	Series			
Features	**FP**	**FPH**	**FPU**	**FPHU**
Brass grommets and spur washers allow air and moisture to be released	Yes	Yes	Yes	Yes
Bottom skirt to seal transition from dock seal to the dock bumper	Yes	Yes	Yes	Yes
Velcro® fasteners	Yes	Yes	Yes	Yes
Lock-stitched seams with high tensile strength polyester filament thread provides excellent weather resistance	Yes	Yes	Yes	Yes
Fiberglass support stays maintain a proper head curtain slope for adequate drainage	—	Yes	—	Yes
Metal pipe inserted into top of hood provides support to resist rain/snow build-up	—	Yes	—	Yes
Standard 24-inch drop on hood	—	Yes	—	Yes
Standard side pad projection is 10 inches	Yes	Yes	—	—
Standard side penetration is 12 inches	—	—	Yes	Yes
Standard head pad projection is 10 inches	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
Top corner pleats on head pad only	Yes	—	Yes	—
Wear face reinforces the entire contact surface of the side pad for greater durability	Yes	Yes	Yes	Yes
Scuff guards protect the inside of side pads from freight	Yes	Yes	Yes	Yes
Bottom door flaps (one to three sides)	Yes	Yes	Yes	Yes
Weighted drop curtain to enable a more effective seal for lower trailers	Yes	Yes	Yes	Yes
Pull rope system enables the curtains to be adjusted to effectively service varying trailer heights	Yes	Yes	Yes	Yes
Tapered units provide a uniform seal when accommodating an inclined or declined drive approach	Yes	Yes	Yes	Yes
2-inch foam-filled drop curtains	Yes	—	Yes	—
Flame-retardant foam and fabric meets the California State Title 19 and NFPA-701 standards	Yes	Yes	Yes	Yes
24-inch high yellow guide stripes for accurate truck positioning	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
2-inch foam-filled hood seals between side pads	—	Yes	—	Yes
Top corner pleats on hood only	—	Yes	—	Yes

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 foam provides long life and resiliency
- Frame is made from pressure-treated, kiln-dried wood
- 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 1.

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 (SS and GS 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" 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 FS 5306 | ASTM D3384	Tensile Strength (lbs./inch) FS 5100 | ASTM D5034	Tear Strength (lbs. width × length) FS 5134 | ASTM D2261	Cold Resistance at 40 degrees F FS 5874 | ASTM D2136
NOVA MAX-1000™	10000	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	950 x 850	160 x 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

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 and 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