1. Product Name

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

2. Manufacturer

NOVA Technology International, LLC
N90 W14507 Commerce Drive
Menomonee Falls, WI 53051
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(800) 236-7325
Fax: (262) 502-1511
E-mail: sales@novalocks.com
Web: www.novalocks.com

3. Product Description

General Description

Rugged NOVA dock seals and shelters provide maximum energy savings with features such as weather-tight enclosures and head pad models available for significant protection from the elements.

Cost effective NOVA dock seals and shelters provide exceptional versatility and can accommodate any type of truck, providing a wide choice of fabric types, weights and colors.

FP Series Dock Seal—the foam-filled head pad and side pads 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 × 9 feet high.

**FPH Series Dock Seal**—features 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 × 12 feet high.

**FPU Series Dock Seal**—accommodates larger doors and provides 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 × 9 feet high.

**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 × 9 feet high.

**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 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 × 12 feet high and higher doors.

**SS Series Soft-Sided Dock Shelter**—provides maximum dock protection and full access to trailers while minimizing pressure on the building wall. The SS Dock Shelter has a much greater tolerance to off-center impacts from trucks. Utilizing foam side pads in its construction, it is capable of compressing and bending out of the way of a truck which fails to properly align with the doorway, preventing costly repairs. Designed for door openings up to 12 feet wide × 12 feet high.

**GS Series Dock Shelter**—engineered for use with swing-door trailers, the GS Dock Shelter seals the air and light gaps through door hinges while still allowing full access into the trailer. Provides maximum dock protection while minimizing pressure on the building wall. Utilizing foam side pads in its construction, it is capable of compressing and bending out of the way of a truck which fails to properly align with the doorway, preventing costly repairs. Designed for door openings up to 12 feet wide × 12 feet high.

**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 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 particulate matter while the loading dock is in use.

**Structural**

NOVA dock seals are constructed from high density polyurethane foam and solid wood. Cover material and wear pleats are top-grade fabrics providing superior performance and maximum durability.

The RF Series dock shelter is constructed from solid wood frames which reduce costs, while the SS and GS Series dock shelter
side pads are constructed from high density polyurethane foam for impressive resilience to damage, with solid wood backings and head frame. All series of dock shelters include top-grade, abrasion-resistant fabric and translucent fiberglass panels.

**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

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**Table 1—Dock Seal Features and Options**

<table>
<thead>
<tr>
<th>Features</th>
<th>FP</th>
<th>FPH</th>
<th>FPU</th>
<th>FPHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass grommets and spur washers allow air and moisture to be released</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bottom skirt to seal transition from dock seal to the dock bumper</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Velcro® fasteners</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lock-stitched seams with high tensile strength polyester filament thread provides excellent weather resistance</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fiberglass support stays maintain a proper head curtain slope for adequate drainage</td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Metal pipe inserted into top of hood provides support to resist rain/snow build-up</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Standard 24-inch drop on hood</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Standard side pad projection is 10 inches</td>
<td>Yes</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Standard side penetration is 12 inches</td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Standard head pad projection is 10 inches</td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>FP</th>
<th>FPH</th>
<th>FPU</th>
<th>FPHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Top corner pleats on head pad only</td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td>Wear face reinforces the entire contact surface of the side pad for greater durability</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Scuff guards protect the inside of side pads from freight</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bottom door flaps (one to three sides)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Weighted drop curtain to enable a more effective seal for lower trailers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pull rope system enables the curtains to be adjusted to effectively service varying trailer heights</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Tapered units provide a uniform seal when accommodating an inclined or declined drive approach</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2-inch foam-filled drop curtains</td>
<td>Yes</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Flame-retardant foam and fabric meets the California State Title 19 and NFPA-701 standards</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>24-inch high yellow guide stripes for accurate truck positioning</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Blockouts for extra protection when full projection foam is not achieved</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Galvanized steel backing</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Weighted hood to enable a more effective seal for lower trailers</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2-inch foam-filled hood seals between side pads</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Top corner pleats on hood only</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
Standard Features

Dock Seals
- Cover material and wear pleats are top-grade fabrics providing superior performance and maximum durability
- High density polyurethane foam provides long life and excellent resiliency characteristics
- Select grade pressure-treated, kiln-dried lumber framing
- 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
- Cover material and wear pleats are top-grade fabrics providing superior performance and maximum durability
- Raked header with translucent fiberglass top provides natural light, permits water drainage, and provides snow load support
- Flexible fiberglass stays add stiffness to shelter face curtains
- Aluminum angle face edging
- Protective wear pleats on head curtain extends life of 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
- Lock-stitched seams with high-tensile polyester filament thread provide excellent weather resistance
- 15-inch yellow guide stripes assist driver with proper vehicle position
- High density polyurethane foam sides for impressive impact resistance (SS & GS Series)
- Easy to remove Velcro® attached front curtains and bottom draft pads (SS & GS Series)

Optional Features (Shelters)
- RF Shelter projection—24 inch standard, customizable to any projection
- SS & GS Shelter projection—18 inch standard, customizable to any projection
- 2-inch foam 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)
- Various fabric colors available (All Series)
- Tapered units for inclined/declined approaches
- Full rope system enables the head curtain to be adjusted to effectively service varying trailer heights
- Flame-retardant foam and fabric meets the California State Title 19 and NFPA-701 standards
- Full-height yellow guide stripes for accurate truck positioning
- Clear roof panels for extra lighting
- Chain weighted drop curtain
- Steel frames (RF Series) and backings (SS & GS Series)
- False header option for doors over 12 feet wide x 12 feet high
- Spring steel stays instead of fiberglass stays
Available Fabrics

- NOVA MAX-1000™—heavy-duty polyester-based fabric with a polymer blend coating, featuring ultra-high abrasion resistance for the toughest environments; resulting in the highest puncture and tear resistance 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 percent 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

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

Table 2—Properties of Fabrics

<table>
<thead>
<tr>
<th>Fabric</th>
<th>Abrasion Resistance Cycles</th>
<th>Tensile Strength (lbs./inch)</th>
<th>Tear Strength (lbs. width × length)</th>
<th>Cold Resistance at 40 degrees F</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOVA MAX-1000™</td>
<td>10000</td>
<td>1000 × 1000</td>
<td>200 × 200</td>
<td>Pass</td>
</tr>
<tr>
<td>NOVA MAX-60™</td>
<td>3000</td>
<td>950 × 850</td>
<td>160 × 130</td>
<td>Pass</td>
</tr>
<tr>
<td>40 oz. NOVALON™*</td>
<td>1500</td>
<td>400 × 350</td>
<td>50 × 40</td>
<td>Pass</td>
</tr>
<tr>
<td>16 oz. NOVALON™*</td>
<td>100</td>
<td>400 × 350</td>
<td>50 × 40</td>
<td>Pass</td>
</tr>
<tr>
<td>40 oz. Vinyl</td>
<td>3000</td>
<td>950 × 850</td>
<td>160 × 130</td>
<td>Pass</td>
</tr>
<tr>
<td>22 oz. Vinyl</td>
<td>1850</td>
<td>695 × 650</td>
<td>120 × 100</td>
<td>Pass</td>
</tr>
</tbody>
</table>

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 D3574—Standard Test Methods for Flexible Cellular Materials—Slab, Bonded and Molded Urethane Foams
- 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

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
- NFPA 701—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 on-line 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 appropriate.

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
- ARCAT®
- Additional product information is available from the manufacturer upon request

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