Sliding Seal & Brass Poppet Valves
Manually Operated

Section U
www.parker.com/pneu/ssv

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HV Valve..................................................................U4-U5
Hand Operated Valves, Dimensions ..............U6-U7
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BOLD ITEMS ARE MOST POPULAR.
Application
These are 4-Way, 3-Position, rotary disc, direct-operated air valves. Two different types of control are offered. The forged bronze disc and the cast iron surface upon which the disc works are ground and lapped to provide a leak-proof seal. Air pressure from the inlet port is confined beneath the disc, making the seal tighter as the pressure increases, yet friction between the lapped surfaces is so low that only 15 pounds of force is required to move the lever at 100 PSI line pressure. The need for packing to seal around the stem is eliminated.

Valve can be furnished for gasketing to a manifold on customer’s machine or with an adaptor for tapped bottom porting.

Valves are detented. Operating handles may be installed in any of four positions.

Operation
Series PL
This type has a 90° lever movement. In neutral position, inlet is closed to pressure – outlets closed to exhaust. With clockwise (CW), inlet is connected to cylinder port directly opposite. Other cylinder port is connected to exhaust. With counterclockwise (CCW), inlet is connected to cylinder port diagonally opposite. Other cylinder port is connected to exhaust. Recommended for stationary air cylinders, arbor presses, and as a throttling valve for positioning air cylinders.

Series VL
This type has a 90° lever movement. In neutral position, inlet is closed to pressure – outlets open to exhaust. With clockwise (CW), inlet is connected to cylinder port directly opposite. Other cylinder port is connected to exhaust. With counterclockwise (CCW), inlet is connected to cylinder port diagonally opposite. Other cylinder port is connected to exhaust. This valve is particularly suited for pneumatic chuck operation.

Operating Pressure
0 to 150 PSI (0 to 1035 kPa)

Operating Temperature
18°F to 200°F (-8°C to 93°C)

Lubrication
Filtered and lubricated air recommended for maximum valve life and minimum maintenance.

Flow Ratings (Cv)

<table>
<thead>
<tr>
<th>Standard Side Port</th>
<th>Optional Bottom Port Adapter</th>
<th>Optional Bottom Manifold</th>
<th>Cv</th>
<th>Port Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL 25</td>
<td>PLD 25</td>
<td>PLA 25</td>
<td>2.5</td>
<td>1/4&quot; NPT</td>
</tr>
<tr>
<td>VL 25</td>
<td>VLD 25</td>
<td>VLA 25</td>
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<tr>
<td>PL 37</td>
<td>PLD 37</td>
<td>PLA 37</td>
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<td>3/8&quot; NPT</td>
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<td>VL 37</td>
<td>VLD 37</td>
<td>VLA 37</td>
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<tr>
<td>PL 50</td>
<td>PLD 50</td>
<td>PLA 50</td>
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<td>VL 50</td>
<td>VLD 50</td>
<td>VLA 50</td>
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</table>

Optional Items and Accessories
Bottom Porting for gasket mounting to customer’s manifold. Four holes are drilled (see following page for dimensions) through the base into the four port chambers. Side ports are plugged. Customer provides suitable means of gasketing. Specify Series PLA or VLA.

Bottom Ported Adaptor Plate, o-ring gasketed to base (four o-rings furnished). Adaptor plate has four drilled and tapped ports. Side ports are plugged. Specify Series PLD or VLD.
### Dimensions

<table>
<thead>
<tr>
<th></th>
<th>PL-25</th>
<th>PL-37</th>
<th>PL-50</th>
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### Dimensions

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Features

- Compact and Simple Design
- 4-Way, 3-Position
- Rotary Disc, Direct Operated Valves
- Side Porting
- Detent Action
- Smooth Lever Actuation
- General Pneumatic Applications

Flow Rating

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Cv (ANSI)</th>
<th>Cv (JIS)</th>
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<tbody>
<tr>
<td>1/4&quot;</td>
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<td>1/2&quot;</td>
<td>1.5</td>
<td>3.26</td>
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Operating Pressure

0 - 150 PSIG (0 - 10 bar)

Operating Temperature

32° - 166°F (0° - 60°C)

Lubrication

Filtered and lubricated air recommended for maximum valve life and minimum maintenance.

Materials

Cover ................................................................. Zinc
Body ................................................................. Aluminum
Seals ............................................................... Polyurethane

Service Kit & Parts Available

Disk and Seal Service Kit:

<table>
<thead>
<tr>
<th>HV4200</th>
<th>HVRK420001</th>
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<tbody>
<tr>
<td>HV4400</td>
<td>HVRK440001</td>
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ANSI Cv vs. JIS Cv

For Pneumatic Valve flow, the measurement Cv – Coefficient of Flow – is used to convey to the user how much air can flow through a given valve. Most valve manufacturers publish this information in their catalogs to assist the user in choosing the proper valve for their application. In publishing this data however, there are discrepancies in how the Cv is calculated, resulting in some Cv’s being OVERSTATED by 20 to 40%. This can adversely affect the user’s application because the valve flows LESS than the published Cv.

The reason for the large discrepancy is in the method of calculation - the ANSI (NFPA) or the JIS standard. Parker’s Cv valve is calculated using the ANSI (NFPA) T3.21.3-1990 standard. The ANSI (NFPA) method is a structured test using very specific tube sizes and lengths, inlet pressures and pressure drops, and volume chambers.
HV Model Number Index

**HV N 42 0 0 – 8**

<table>
<thead>
<tr>
<th>Port Type</th>
<th>Blank</th>
<th>Bearing</th>
<th>Gear</th>
<th>Mating Hole</th>
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<td>NPT</td>
<td>N</td>
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<tr>
<td>BSPP “G”</td>
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</table>

<table>
<thead>
<tr>
<th>Port Size</th>
<th>1/4” (42 Type Only)</th>
<th>3/8” (44 Type Only)</th>
<th>1/2” (44 Type Only)</th>
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<tr>
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<table>
<thead>
<tr>
<th>Body Type</th>
<th>4-Port, 3-Position Mini 42</th>
<th>4-Port, 3-Position Medium 44</th>
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</thead>
<tbody>
<tr>
<td>Port Option</td>
<td>0</td>
<td>Side Port</td>
</tr>
</tbody>
</table>

| Valve Type      | 0  Closed Center            | 0  Closed Center            |

Dimensions

**HVN4200-8**

- 1/4” Port (4 Places)
- 1.34 (34)
- .60 (15.3)
- 3.90 (99)
- 3.15 (80)

**HVN4400-10, 15**

- 3/8” or 1/2” Ports (4 Places)
- 1.34 (34)
- 3.15 (80)
- 4.76 (121)
- 4.84 (123)
Application
Sliding seal valves provide 3 or 4-Way directional control in a compact body size. Comfortable hand lever is easy to operate and maintains set position. Disc type valve has minimum number of moving parts. Valves should be used with filtered and lubricated air.

⚠️ CAUTION:
Install guards on all hand operated valves. Accidental operation can cause personal injury.

Operating Temperature
-40°F to 212°F (-40°C to 100°C)
If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

Operating Pressure
Maximum ..................................................... 200 PSIG air only
Minimum .......................................................... 26" Hg vacuum

Materials
Seals .......................................................... Buna N
Internal Components .................... Brass, Stainless Steel
Body ..................................................... Die Cast Zinc

Model Selection and Performance Data
<table>
<thead>
<tr>
<th>Port Size</th>
<th>Function</th>
<th>Model Number</th>
<th>Old Number</th>
<th>Cv (Avg)</th>
<th>Service Kit*</th>
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<tbody>
<tr>
<td>1/8&quot;</td>
<td>3-Way, 2-Position</td>
<td>03213 0599</td>
<td>3213H</td>
<td>0.54</td>
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<td>823H</td>
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<tr>
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<td>4-Way, 3-Position</td>
<td>00824 0109</td>
<td>824H</td>
<td>1.25</td>
<td>00823 0299</td>
</tr>
</tbody>
</table>

* Contains asterisk items from next page.
Sliding Seal & Brass Poppet Valves
Hand Operated - Parts Data

### 1/8" 3-Way
(Model No. 03213 0599)

- Disc Assembly (Includes Lever)
- Seal Ring*
- "O" Ring*
- Spring*
- Screw 03213 7001
- 03257 1224 Nut

### 1/8" 4-Way
(Model No. 03214 0299)

- Disc Assembly (Includes Lever)
- Seal Ring*
- "O" Ring*
- Spring*
- Screw 03213 7001

### 1/4" 3-Way
(Model No. 00823 0109)

- Disc Assembly (Includes Lever)
- Seal Ring*
- "O" Ring*
- Spring*
- Screw 03213 7001
- H063135 Hex Nut

### 1/4" 4-Way
(Model No. 00824 0109)

- Disc Assembly (Includes Lever)
- Seal Ring*
- "O" Ring*
- Spring*
- Screw 03213 7001
- H063135 Hex Nut

**NOTE:** With lever in position shown, inlet pressure is connected to port A.

**NOTE:** With lever in position shown, inlet port 3 is connected to port 4 and exhaust is through port 1.

* Screw 03213 7001
* 03257 1224 Nut
* Seal Ring*
* "O" Ring*
* Spring*
* Disc Assembly (Includes Lever)
* H063135 Hex Nut
* 00824 0070 Screw
* K01R011025 Ball
* 00824 0080 Spring

*Four-Way Valves Only*
Application
Normally-closed poppet valve operates at the press of a button and may be installed in a pipe line or used as a portable blow gun attached to a length of hose.

⚠️ CAUTION:
Install guards on all hand operated valves. Accidental operation can cause personal injury.

Operating Temperatures:
-20°F to 180°F (-28°C to 82°C)

Operating Pressures:
Maximum ..................................................... 150 PSIG air only
Minimum ............................................................ 0 PSIG

Materials:
Seals ........................................................................... Buna N
Internal Components....... Brass, Stainless and Plated Steel
Body ......................................................... Brass

Dimensions

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Function</th>
<th>Model Number</th>
<th>Old Number</th>
<th>Cv (Avg)</th>
<th>Service Kit</th>
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<tr>
<td>1/4&quot;</td>
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<td>7796SP1</td>
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<td>08187 0129</td>
<td>8187</td>
<td>0.94</td>
<td>07796 0105</td>
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</tbody>
</table>

* Included in service kits listed below.
† Not Field Replaceable
Change complete Plunger Unit

Model Selection and Performance Data

Replacement Parts

Parker Hannifin Corporation
Pneumatic Division
Richland, Michigan
www.parker.com/pneumatics
Application

Inline, button-operated, normally closed poppet valve has mounting holes for single or gang mounting. Actuation by hand, cam or mechanical fingers. Valves should be used with filtered and lubricated air.

⚠️ CAUTION:
Install guards on all hand operated valves. Accidental operation can cause personal injury.

Operating Temperatures:
-20°F to 180°F (-28°C to 82°C)

Operating Pressures:
Maximum ..................................................... 150 PSIG air only
Minimum .......................................................... 0 PSIG

Materials:
Seals ................................................................. Buna N
Internal Components ........ Brass, Stainless and Plated Steel
Body ................................................................. Aluminum bar stock

Model Selection and Performance Data

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Function</th>
<th>Model Number</th>
<th>Old Number</th>
<th>Cv (Avg)</th>
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Application
This 2-Way normally closed bleeder valve is an accessory that may be used with any double pilot-operated valve (bleed type). It provides manual or cam-operated control. A 1/4" pipe thread fits either the pilot valve port or the feeder airline. Opposite end has standard 1/2-20 thread for easy mounting on machine or panel. Valves should be used with filtered and lubricated air.

Operating Temperatures:
-40°F to 450°F (-40°C to 232°C)

Operating Pressures:
Maximum.................................................... 150 PSIG air only
Minimum.......................................................... 0 PSIG

Materials:
Seals ................................................................. Fluorocarbon
Internal Components.......................... Brass, Stainless Steel
Body ................................................................. Brass

Model Selection

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Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

⚠️ WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

1. GENERAL INSTRUCTIONS

1.1. Scope: This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters, Pressure Regulators, and Lubricators), Vacuum products and related accessory components.

1.2. Fail-Safe: Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.


1.4. Distribution: Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Parker valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

1.5. User Responsibility: Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Parker and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:
- Making the final selection of the appropriate valve, FRL, Vacuum component, or accessory.
- Assuring that all user’s performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
- Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
- Assuring compliance with all applicable government and industry standards.

1.6. Safety Devices: Safety devices should not be removed, or defeated.

1.7. Warning Labels: Warning labels should not be removed, painted over or otherwise obscured.

1.8. Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the product being considered or used, or call 1-800-CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

2.1. Flow Rate: The flow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate flow and pressure for the desired application.

2.2. Pressure Rating: Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.

2.3. Temperature Rating: Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.

2.4. Environment: Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can shorten the useful life and lead to premature failure of a product.

2.5. Lubrication and Compressor Carryover: Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.

2.6. Polycarbonate Bowls and Sight Glasses: To avoid potential polycarbonate bowl failures:
- Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
- Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
- Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.
2.7. Chemical Compatibility: For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5

2.8. Product Rupture: Product rupture can cause death, serious personal injury, and property damage.
   • Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
   • Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
   • Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1. Component Inspection: Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.

3.2. Installation Instructions: Parker published Installation Instructions must be followed for installation of Parker valves, FRLs and vacuum components. These instructions are provided with every Parker valve or FRL sold, or by calling 1-800-CPARKER, or at www.parker.com.

3.3. Air Supply: The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing.

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1. Maintenance: Even with proper selection and installation, valve, FRL and vacuum products service life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.10.

4.2. Installation and Service Instructions: Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Parker valve and FRL sold, or are available by calling 1-800-CPARKER, or by accessing the Parker web site at www.parker.com.


4.4. Visual Inspection: Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
   • Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
   • Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
   • Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air flow and lead to unpredictable system behavior.
   • Any observed improper system or component function: Immediately shut down the system and correct malfunction.
   • Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.
   Caution: Leak detection solutions should be rinsed off after use.

4.5. Routine Maintenance Issues:
   • Remove excessive dirt, grime and clutter from work areas.
   • Make sure all required guards and shields are in place.

4.6. Functional Test: Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.

4.7. Service or Replacement Intervals: It is the user's responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can significantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
   • Previous performance experiences.
   • Government and / or industrial standards.
   • When failures could result in unacceptable down time, equipment damage or personal injury risk.

4.8. Servicing or Replacing of any Worn or Damaged Parts: To avoid unpredictable system behavior that can cause death, personal injury and property damage:
   • Follow all government, state and local safety and servicing practices prior to service including but not limited to all OSHA Lockout Tagout procedures (OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – Lockout / Tagout).
   • Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
   • Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
   • Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
   • After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
   • Warnings and specifications on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.

4.9. Putting Serviced System Back into Operation: Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.
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2. Payment: Payment shall be made by Buyer net 30 days from the date of delivery of the items purchased hereunder. Amounts not timely paid shall bear interest at the maximum rate permitted by law for each month or portion thereof that the Buyer is late in making payment. Any claims by Buyer for omissions or shortages in a shipment shall be waived unless Seller receives notice thereof within 30 days after Buyer’s receipt of the shipment.

3. Delivery: Unless otherwise provided on the face hereof, delivery shall be made F.O.B. Seller’s plant. Regardless of the method of delivery, however, risk of loss shall pass to Buyer upon Seller’s delivery to a carrier. Any delivery dates shown are approximate only and Seller shall have no liability for any delays in delivery.

4. Warranty: Seller warrants that the items sold hereunder shall be free from defects in material or workmanship for a period of 18 months from date of shipment from Parker Hannifin Corporation. THIS WARRANTY COMPRIS ES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREFUNDER. SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER, ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESS, IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING ARE HEREBY DISCLAIMED. NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY, TO BUYER’S DESIGN OR SPECIFICATIONS.

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6. Changes, Reschedules and Cancellations: Buyer may request to modify the designs or specifications for the items sold hereunder as well as the quantities and delivery dates thereof, or may request to cancel all or part of this order, however, no such requested modification or cancellation shall become part of the contract between Buyer and Seller unless accepted by Seller in a written amendment to this Agreement. Acceptance of such a request or cancellation shall be at Seller’s discretion, and shall be upon such terms and conditions as Seller may require.

7. Special Tooling: A tooling charge may be imposed for any special tooling, including without limitations, dies, fixtures, molds and patterns, acquired to manufacture items sold pursuant to this contract. Such special tooling charges, if any, shall remain Seller’s property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in apparatus belonging to Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adapted for such manufacture and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

8. Buyer’s Property: Any designs, tools, patterns, materials, drawings, recipes, information or any equipment furnished by Buyer, or any other items which become Buyer’s property, may be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer placing an order for the items which are manufactured using such property. Seller shall not be responsible for any loss or damage to such property while it is in Seller’s possession or control.

9. Taxes: Unless otherwise indicated on the face hereof, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by Seller or if Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the items sold. Buyer agrees to pay all such taxes or to reimburse Seller therefore upon receipt of its invoice. If Buyer claims exemption from any taxes, use or other tax imposed by any taxing authority, Buyer shall save Seller harmless from and against any such tax, together with any interest or penalties thereon which may be assessed if the items are held to be taxable.

10. Indemnity For Infringement of Intellectual Property Rights: Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter “Intellectual Property Rights”). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based upon an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller’s obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If in Seller’s sole judgment the item is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and pay all purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller’s sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgments resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

11. Force Majeure: Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller’s obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter “Events of Force Majeure”). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller’s control.

12. Entire Agreement/Governing Law: The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and any other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.