INFORMATION SHEET: SERIES SFM SLIDES
INSTALLATION, OPERATION, AND REPLACEMENT PROCEDURES

IMPORTANT INFORMATION
DO NOT DISCARD!

Use this information sheet to assist with slide installation and setup.
File with maintenance or machine documentation.

TO ORDER SPECIFY:
Product, Series, Type, Design No.,
Package Size, Travel, Mandatory/Required
Options, and Options.

Mandatory/Required
Options
See page 2-96 for valid
option sequences.

PORTED MID-STOP
(See Note 10)

NP1 x

Quantity of Stops
1 - 1 Stop
2 - 2 Stops
9 - 9 Stops

VALUE READY MID-STOP
(See Note 10)

NP3 x

Quantity of Stops
1 - 1 Stop
2 - 2 Stops
9 - 9 Stops

CAP MOUNTED SHOCK ABSORBER/PLUG (See Note 6.)

Extend Direction of Travel
0 - Plug installed (no shock absorber)
* - Shock absorber installed with * damping constant value (no plug)

Retract Direction of Travel
0 - Plug installed (no shock absorber)
* - Shock absorber installed with * damping constant value (no plug)

ADJUSTABLE END STOP (See Note 6.)

Extend Direction of Travel
0 - No end stop provided
1 - End stop provided

Retract Direction of Travel
0 - No end stop provided
1 - End stop provided

EXTERNAL FLOW CONTROL
PB - Flow controls installed in both directions
PE - Flow controls installed on extend
PR - Flow controls installed on retract

SADDLE MOUNTED SHOCK ABSORBER
FOR USE WITH ADJUSTABLE STOPS (END AND MID STOPS)

Extend Direction of Travel
* - Shock absorber installed with * damping constant value

Retract Direction of Travel
* - Shock absorber installed with * damping constant value

SERIES F - Pneumatic Rodless

PRODUCT S - Slide

METRIC TRAVEL
STANDARD TRAVEL LENGTHS
(50 mm minimum travel in 25 mm increments)
Size
Travel
527 50 mm - 1800 mm
540 50 mm - 3400 mm

SLIDE OPTIONS
M - Magnet for use with PHD 6790 & JC1 Switches
Z1 - Corrosion resistant plating on ferrous parts
L9 - NPT ports

NOTES:
1) Switches must be ordered separately.
2) Option -M required to operate Series 6790 and JC1 switches with slide saddle.
3) Option -NPx1 required to manifold mount MAC Series 43 valve to mid-stop actuator.
4) At least one mid-stop actuator (option -NPx1) or one adjustable end stop (option -NMx1
or option -NMxx) must be ordered with slide.
5) Saddle mounted shock absorbers (option -NMxx) are required (mandatory option).
6) Either cap mounted shock absorber (option -NTxx) or adjustable end stop (option -NNxx)
must be ordered for each direction of saddle travel.
7) Saddle dowel holes are standard.
8) Modular mounting interface with PHD Series STP and SK/SL Slides is standard.
9) Mounting on top, bottom, ends, and T-slots is standard.
10) Leave blank if option is not required. Both options may be ordered together (must be
specified separately). Example: -NP12-NP31-

PB - M

NP14 - NN01 - NM22 - NT20 - PB - M

PORTED MID-STOP
(See Note 10)

NP1 x

Quantity of Stops
1 - 1 Stop
2 - 2 Stops
9 - 9 Stops

VALVE READY MID-STOP
(See Note 10)

NP3 x

Quantity of Stops
1 - 1 Stop
2 - 2 Stops
9 - 9 Stops

---

Galvanochrome Metal Plating

- Corrosion resistant plating on ferrous parts

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www.phdinc.com

PART NO.: 6441-550E

U.S. PATENTS NO. 6,857,780,
7,290,478 & 7,290,479
INTERNATIONAL PATENTS PENDING

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ORDERING DATA: SERIES SFM SLIDES

The figures below can be used to determine the proper option ordering sequence for a desired slide configuration. Find the combination of mid-stop actuator and/or adjustable end-stops that fit your application and read the option sequence below the corresponding figure. Note: -NMxx option must be ordered. Either -NNxx or -NTxx option must be ordered for each direction of saddle travel.

- STOP ACTUATOR, ADJUSTABLE END STOP, & SHOCK LOCATION KEY WHERE * = SHOCK DAMPING CONSTANT
- TWO SADDLE MOUNTED SHOCKS CAN BE SPECFIED USING -NM**
- TWO ADJUSTABLE END STOPS CAN BE SPECIFIED USING THE -NN01 OPTION
- TWO CAP MOUNTED SHOCKS CAN BE SPECIFIED USING THE -NT0* OPTION

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SIZING AND APPLICATION ASSISTANCE
See PHD Product Sizing Catalog for specific and complete sizing information.
Online sizing assistance is available at: www.phdinc.com/apps/sizing

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**SHOCK ABSORBER PREVENTATIVE MAINTENANCE**

**WARNING:** Functioning shock absorbers are critical to the reliable performance of the Series SFM Slide. Failure to replace a damaged or compromised shock absorber in a timely manner may result in damage to the slide and surrounding equipment. A properly functioning shock absorber will provide smooth and controlled deceleration of the slide saddle. Frequently inspect all shock absorbers for proper function and immediately replace applicable shock absorber if any of the following conditions are observed:

1. Bouncing or jerky movement of the saddle as the saddle decelerates to rest.
2. Body of shock absorber is hot (body should be warm to the touch, but not too hot to grasp and hold with hand).
3. Registration or repeatability of a stopping position changes suddenly.

**NOTE:** Saddle mounted shock absorbers control deceleration in the direction of saddle travel opposite the end of the saddle in which shock absorber is located. Cap mounted shock absorbers control deceleration in the direction of saddle travel toward the end cap in which the shock absorber is located.

**SADDLE ASSEMBLY CENTERING PROCEDURE (Figures 4B & 5)**

**NOTE:** The saddle assembly can be adjusted to stop the saddle at a common position regardless of which direction the saddle is traveling when the mid-stop actuator is engaged.

1. Loosen socket head cap screws (11C) retaining shock absorbers.
2. Identify shock absorber damping constant.
3. Adjust shock absorber as shown in figure 4B to match extension shown in chart for appropriate damping constant.
4. Pressurize mid-stop actuator (63) to extend pawl.
5. Pressurize SFM Slide to move the saddle assembly (11) until it comes to rest against extended pawl.
6. Adjust the shock absorber that is located on the side of the saddle assembly opposite the direction of slide thrust, rotate the shock absorber clockwise to move the position of the saddle away from the pawl. Rotate counter-clockwise to move the saddle position towards the pawl. Adjust until saddle is centered over centerline of pawl.
7. Tighten fastener (11C) to value listed in Assembly Torques table to retain shock absorber position.
8. Repeat steps 1 through 7 with saddle thrust in opposite direction to adjust position of saddle when stopping from opposite direction of saddle travel.

---

**SHOCK ABSORBER EXTENSION**

*Figure 4B*

<table>
<thead>
<tr>
<th>SIZE</th>
<th>SHOCK DAMPING CONSTANT</th>
<th>LETTER DIMENSION A</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>2</td>
<td>2.60 [66.0]</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2.60 [66.0]</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>2.57 [65.3]</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2.83 [71.9]</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>2.66 [67.6]</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2.66 [67.6]</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2.66 [67.6]</td>
</tr>
</tbody>
</table>

---

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### WARNING:
Series SFM Slides must be controlled by CENTER PRESSURIZED (pressure center) or equivalent type valves. Failure to maintain pressure on both ports of slide when releasing stopped saddle assembly can cause saddle assembly to rapidly accelerate upon release of stop, causing possible physical injury to adjacent personnel and/or damage to equipment. Series SFM Slides use back-pressure on exhaust side of slide piston to regulate saddle speed. Presence of adequate back pressure is critical when the saddle stopped by a stop actuator is released. If air opposite the pressurized side of the slide piston is exhausted to ambient pressure before saddle is released, saddle can rapidly accelerate to high velocity before sufficient back-pressure can build to regulate saddle speed. **Configure and operate SFM / Mid-Stop Actuator system in accordance with figures 1A or 1B.**

### PLUMBING SFM / MID-STOP ACTUATOR SYSTEM (Figures 1A & 1B)

**WARNING:** Center pressurized or equivalent type valving MUST be used to control slide for safe operation of the SFM system.

1. Plumb system in accordance with figure 1A with slide operated in vertical orientation. Plumb system in accordance with figure 1B with slide operated in horizontal orientation.

2. **Always** maintain pressure on both ports of slide when retracting pawl to release stopped saddle assembly.

### VALVE PLUMBING & SLIDE CONTROL INFORMATION

**NOTE:** See table below for saddle weights and thrust constants

<table>
<thead>
<tr>
<th>SIZE</th>
<th>THRUST CONSTANT</th>
<th>SADDLE WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>0.887 lb/psi</td>
<td>5.73 N/bar</td>
</tr>
<tr>
<td>40</td>
<td>1.948 lb/psi</td>
<td>12.57 N/bar</td>
</tr>
</tbody>
</table>

---

### CUSTOMER TORQUE SPECIFICATIONS

<table>
<thead>
<tr>
<th>PART DESCRIPTION</th>
<th>TORQUE in-lb (Nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFM527</td>
<td>5 (0.6)</td>
</tr>
<tr>
<td>SFM540</td>
<td>5 (0.6)</td>
</tr>
<tr>
<td>SHOCK NUT</td>
<td>120 (13.5)</td>
</tr>
<tr>
<td></td>
<td>225 (25.8)</td>
</tr>
<tr>
<td>SOCKET SET, END STOP, IMPACT PLATE ASSEMBLY RETENTION SCREW</td>
<td>6 (0.7)</td>
</tr>
<tr>
<td></td>
<td>14 (1.6)</td>
</tr>
<tr>
<td>END STOP TO SLIDE MOUNTING SHCS</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td></td>
<td>120 (13.5)</td>
</tr>
<tr>
<td>MID-STOP TO SLIDE MOUNTING SHCS</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td></td>
<td>120 (13.5)</td>
</tr>
<tr>
<td>SADDLE MOUNTING (PATTERN L-K FROM CATALOG)</td>
<td>75 (8.5)</td>
</tr>
<tr>
<td></td>
<td>100 (11.3)</td>
</tr>
<tr>
<td>SADDLE MOUNTING (PATTERN R-S FROM CATALOG)</td>
<td>100 (11.3)</td>
</tr>
<tr>
<td></td>
<td>200 (22.6)</td>
</tr>
</tbody>
</table>
The PHD Series SFM Slide utilizes external compact banjo flow control fittings to adjust the saddle velocity. The control fittings are unidirectional flow control valves where intake air flows freely through the flow control and exhaust air is metered out through an adjustment screw. Intake capacity is slightly greater than the full open exhaust capacity, enabling maximum variation of saddle speeds.

The PHD Series SFM flow control fittings are supplied for direct mounting to the caps and provide integral tube fitting connection. They also swivel 360 degrees around the ports, easing tube routing installation. Saddle velocities are adjusted and maintained by the captivated fine adjustment screw with a locking nut, which ensures precise velocity control and repeatability.

**NOTE:** Flow control fitting is effective throughout the Series SFM temperature and pressure range.

### L9 NPT PORTS

This option provides NPT ports instead of the standard BSPP ports. The NPT ports are located in the same location as the BSPP ports.

### Z1 CORROSION RESISTANT PLATING

This option provides corrosion resistant plating on all externally exposed ferrous parts. This optional plating can be used to protect the slide from severe or corrosive environments.

**NOTE:** Shock Absorbers are not plated with -Z1 option.

### NMxx SADDLE MOUNTED SHOCK ABSORBER

This option must be ordered. See Ordering Data section for additional information on how to specify -NMxx option. See PHD Product Sizing Catalog or product sizing software for details on shock absorber stopping capacity and to determine the proper damping constant value.
OPTIONS: SERIES SFM SLIDES

**PORTED MID-STOP ACTUATOR**

**VALVE READY MID-STOP ACTUATOR**

This option provides mid-stop actuators to stop the saddle at intermediate positions of travel. Actuators are double-acting for flexible system configuration and can stop the saddle in both directions of travel. Actuators can be positioned anywhere along the length of travel. Ported version (-NP1x) accepts standard 10-32 [M5] threaded fittings. Valve-ready version (-NP3x) directly interfaces to MAC 43A-AAA-Rxxx-xxx valve with included valve mounting kit. (Valves must be ordered separately from your MDN Distributor.)

Mid-stop actuators are switch ready with internal magnet to actuate PHD Series 6790 Solid State Switches. (Series 6790 Reed Switches are not compatible with Series SFM Slide.) Actuators with associated mounting hardware are packed with the slide, ready for installation onto the slide at desired intermediate stopping positions.

**FINE POSITIONING STOP ACTUATOR WITH ADJUSTABLE END STOP**

- Locate stop actuator at approximate desired mounting location
- Snug stop actuator fasteners leaving stop actuator free to slide
- Firmly mount adjustable end stop next to stop actuator
- Pressurize slide to push saddle against stop actuator pawl
- Adjust jack screw of end stop to fine position stop actuator pawl
- Tighten stop actuator fasteners to secure and remove end stop

**ADJUSTABLE END STOP IN EXTEND DIRECTION**

**ADJUSTABLE END STOP IN RETRACT DIRECTION**

**ADJUSTABLE END STOP IN BOTH DIRECTIONS**

This option provides adjustable end stops to control the end-of-travel stopping position. The end stop can be positioned anywhere along the length of travel and features an additional ±0.118 in [3 mm] of fine position adjustment once the stop has been mounted to the slide. A single adjustable end stop can also be used to provide ±0.118 in [3 mm] of fine position adjustment for multiple mid-stop actuators. End stops with associated mounting hardware are packed with the slide, ready for installation onto the slide at desired end-of-travel stopping positions.

**CONSTRUCTION:**

- STOP ACTUATOR PAWL
- JACK SCREW ASSEMBLY
- SADDLE TOOTH

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OPTIONS: SERIES SFM SLIDES

**CAP MOUNTED SHOCK ABSORBER**

IN EXTEND DIRECTION  

**NTx0**

IN RETRACT DIRECTION  

**NTOx**

IN BOTH DIRECTIONS  

**NTxx**

Caution: Care should be taken to ensure that stopping at end-of-travel position is always accomplished with either Travel Adjustment Screws, Shock Absorbers, or customer applied tooling or fixturing.

This option provides end cap mounted shock absorbers. This option or adjustable end stop (-NNxx option) must be ordered for each direction of travel. End cap mounted shock absorbers can also be ordered in addition to adjustable end stops to provide redundant end-of-travel stopping. Shock absorbers provide an adjustment range of 0.55 in [14 mm] from each end of travel. See PHD Product Sizing Catalog or product sizing software for details on shock absorber stopping capacity and to determine the proper damping constant value.

**OPTION CODE**

-NT x x

<table>
<thead>
<tr>
<th>Extend Direction Cap Shock</th>
<th>Retract Direction Cap Shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Plug installed no shock</td>
<td>0 = Plug installed no shock</td>
</tr>
<tr>
<td>2 = Damping constant</td>
<td>2 = Damping constant</td>
</tr>
<tr>
<td>3 = Damping constant</td>
<td>3 = Damping constant</td>
</tr>
<tr>
<td>4 = Damping constant (size 40 only)</td>
<td>4 = Damping constant (size 40 only)</td>
</tr>
<tr>
<td>5 = Damping constant (size 27 only)</td>
<td>5 = Damping constant (size 27 only)</td>
</tr>
<tr>
<td>6 = Damping constant (size 27 only)</td>
<td>6 = Damping constant (size 27 only)</td>
</tr>
</tbody>
</table>

**MAGNET FOR PHD SERIES 6790 & JC1 SWITCHES**

Series SFM Slides are optionally internally equipped with a magnet for use with PHD Series 6790 and JC1 Switches. These switches mount easily to the unit using the switch slot on the side of the tube.

PHD Series 6790 and JC1 Switches are designed specifically to provide an input signal to various types of programmable controllers or logic systems. See the Switches and Sensors section of the Main Catalog for complete switch specifications.

**TORQUE CHART**

<table>
<thead>
<tr>
<th>SWITCH</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>6790</td>
<td>16 in-oz</td>
</tr>
<tr>
<td>JC1SDx</td>
<td>Hand tighten clockwise until switch is securely retained. Do not overtighten.</td>
</tr>
</tbody>
</table>

**SERIES 6790 & JC1 SWITCHES**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>67902-1-05</td>
<td>PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, 5 m cable</td>
</tr>
<tr>
<td>JC1SDN-5</td>
<td>NPN (Sink) Solid State, 10-30 VDC, 5 m cable</td>
</tr>
<tr>
<td>JC1SDP-5</td>
<td>PNP (Source) Solid State, 10-30 VDC, 5 m cable</td>
</tr>
<tr>
<td>67922-1</td>
<td>PNP (Source) or NPN (Sink) Reed, 4.5-30 VDC, Quick Connect</td>
</tr>
<tr>
<td>JC1SDN-K</td>
<td>NPN (Sink) Solid State, 10-30 VDC, Quick Connect</td>
</tr>
<tr>
<td>JC1SDP-K</td>
<td>PNP (Source) Solid State, 10-30 VDC, Quick Connect</td>
</tr>
<tr>
<td>67929-2</td>
<td>PNP (Source) or NPN (Sink) Reed, 65-120 VDC, Quick Connect</td>
</tr>
</tbody>
</table>

NOTE: See Switches and Sensors section of Main Catalog for additional switch information and complete specification.

**SERIES 6790 & JC1SDX CORDSET CHART**

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>63549-02</td>
<td>M8, 3 pin, Straight Female Connector, 2 m cable</td>
</tr>
<tr>
<td>63549-05</td>
<td>M8, 3 pin, Straight Female Connector, 5 m cable</td>
</tr>
</tbody>
</table>

**SHOCK ABSORBER REPLACEMENT KIT NO.**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>METRIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>63290-02-00-xx</td>
</tr>
<tr>
<td>40</td>
<td>63290-03-00-xx</td>
</tr>
</tbody>
</table>

Kit includes one shock and nut for one end. 

-xx = shock damping constant (see PHD product sizing catalog)
T-NUTS
T-nuts allow attachment of switches, cable carriers, or other accessories to be easily mounted to the slide. T-nuts can be positioned at any point along the T-slot grooves. The swiveling T-nut design allows insertion from the top of the slot. When the nut is tightened, it rotates into the locking position and securely clamps the bolted part.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>SWIVEL T-NUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>72128-00</td>
</tr>
<tr>
<td>40</td>
<td>72128-00</td>
</tr>
</tbody>
</table>

Note: Each number represents one T-Nut.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td>40</td>
<td>80</td>
</tr>
</tbody>
</table>

Note: Over torquing fastener may damage tube, T-nut, and/or fastener.

EXTERNAL PROXIMITY SWITCH READY BRACKETS
This accessory provides for external mounting of a 12 mm round metal sensing proximity switch. One switch mount kit is required per switch and includes the bracket with the required slide mounting hardware. The Series SFM Slide utilizes the T-slots on the side of the tube to attach the proximity mounting bracket. Proximity switches are ordered separately. See Switches and Sensors section of Main Catalog for complete switch specifications.

<table>
<thead>
<tr>
<th>SIZE</th>
<th>PROXIMITY MOUNTING KIT (METRIC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>78422-011 78422-012</td>
</tr>
<tr>
<td>40</td>
<td>78422-021 78422-022</td>
</tr>
</tbody>
</table>

Kit includes hardware for one switch. Switches ordered separately.

MODULAR MOUNTING KITS
Modular design of the Series SFM saddle allows units to bolt and dowel together without the need for a transition plate. See chart below for slide compatibility and hardware kits required. Each kit contains two dowel pins and four SHCS to mount the units together.

<table>
<thead>
<tr>
<th>PRIMARY UNIT</th>
<th>SECONDARY UNIT</th>
<th>DOWEL PIN READY</th>
<th>FASTENER KIT</th>
<th>DIMENSION A (WITHOUT ADJUSTMENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFM527</td>
<td>STP516</td>
<td>YES</td>
<td>73234-xx</td>
<td>3.111 [79]</td>
</tr>
<tr>
<td>SFM540</td>
<td>STP525</td>
<td>YES</td>
<td>73235-xx</td>
<td>3.977 [101]</td>
</tr>
</tbody>
</table>

Numbers in [ ] are in mm.
-xx = -00 = Standard Plating
-03 = Z1 Electroless Nickel Plating

<table>
<thead>
<tr>
<th>PRIMARY UNIT</th>
<th>SECONDARY UNIT</th>
<th>DOWEL PIN READY</th>
<th>FASTENER KIT</th>
<th>DIMENSION A (WITHOUT ADJUSTMENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFM527</td>
<td>SK/SLxxx2</td>
<td>NO</td>
<td>73230-xx</td>
<td>2.539 [64.5]</td>
</tr>
<tr>
<td>SFM540</td>
<td>SK/SLxxx4</td>
<td>NO</td>
<td>73231-xx</td>
<td>2.559 [65]</td>
</tr>
</tbody>
</table>

Numbers in [ ] are in mm.
-xx = -00 = Standard Plating
-03 = Z1 Electroless Nickel Plating

12 mm THREADED PROXIMITY SWITCH
12 mm Threaded Proximity Switches are customer supplied.
**EXPLODED VIEW & PARTS LIST: SERIES SFM SLIDES**

### MID-STOP ACTUATOR

![Diagram of MID-STOP ACTUATOR]

### ADJUSTABLE END STOP

![Diagram of ADJUSTABLE END STOP]

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**KEY** | **PART DESCRIPTION** | **SFMB07** | **SFMB040**
---|---|---|---
1 | Tube Assembly | Full Unit Description -H1300 | Full Unit Description -H1200
2 | Right Cap Assembly | Full Unit Description -H1200 | Full Unit Description -H6310
3 | Left Cap Assembly | Full Unit Description -H6310 | Full Unit Description -H6300
4 | Piston Carriage Assembly | Full Unit Description -H6300 | Full Unit Description -H6300
5 | Grommet | Full Unit Description -H6310 | Full Unit Description -H6310
6 | Slide / Rail Assembly | Full Unit Description -H9040 | Full Unit Description -H9040
7 | T-Nut | Full Unit Description -H9040 | Full Unit Description -H9040
10 | Transmission Carriage | Full Unit Description -H6310 | Full Unit Description -H6310
11 | Saddle Assembly | Full Unit Description -H4800 | Full Unit Description -H4800
11C | SHCS | Sold as part of Saddle Fastener Kit -H9040 | Sold as part of Saddle Fastener Kit -H9040
11G2 | SHCS | Sold as part of Saddle Fastener Kit -H9040 | Sold as part of Saddle Fastener Kit -H9040
12 | Arm | Full Unit Description -H5610 | Full Unit Description -H5610
13 | Scraper | Full Unit Description -H6300 | Full Unit Description -H6300
15 | Band Clamp | Full Unit Description -H6300 | Full Unit Description -H6300
16 | Outer Band | Full Unit Description -H6310 | Full Unit Description -H6310
17 | Linear Seal | Sold as part of Slide Seal Kit -H9000 | Sold as part of Slide Seal Kit -H9000
21 | Shoulder Bolt | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
22 | Rail To T-Nut SHCS | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
23 | Transmission Carriage To Slide / Rail Assembly SHCS | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
24 | Saddle To Transmission Carriage SHCS | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
26 | Band Clamp To Cap SHCS | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
27 | Socket Set Screw | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
30 | Arm To Transmission Carriage SHCS | Sold as part of Slide Fastener Kit -H9020 | Sold as part of Slide Fastener Kit -H9020
31 | Spring Pin | Full Unit Description -H6300 | Full Unit Description -H6300
40 | Roller Pin | Full Unit Description -H6300 | Full Unit Description -H6300
59 | Port Plug | Full Unit Description -H6310 | Full Unit Description -H6310

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**U.S. PATENTS NO. 6,857,780, 7,290,478 & 7,290,479**

**INTERNATIONAL PATENTS PENDING**

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For additional technical assistance, call or visit our website:
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