

## Rail Brake

### Generation II

RB15, RB20, RB25, RB30, RB35, and RB45






FORM NO. L-21326-C-0513

In accordance with Nexen's established policy of constant product improvement, the specifications contained in this manual are subject to change without notice. Technical data listed in this manual are based on the latest information available at the time of printing and are also subject to change without notice.

Technical Support: 800-843-7445  
(651) 484-5900

[www.nexengroup.com](http://www.nexengroup.com)

	<p style="text-align: center;"> <b>DANGER</b></p> <p>Read this manual carefully before installation and operation. Follow Nexen's instructions and integrate this unit into your system with care. This unit should be installed, operated and maintained by qualified personnel <b>ONLY</b>. Improper installation can damage your system, cause injury or death. Comply with all applicable codes.</p>	
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This document is the original, non-translated, version.

Conformity Declaration: In accordance with Appendix II B of CE Machinery Directive (2006/42/EC):

A Declaration of Incorporation of Partly Completed Machinery evaluation for the applicable EU directives was carried out for this product in accordance with the Machinery Directive. The declaration of incorporation is set out in writing in a separate document and can be requested if required.

This machinery is incomplete and must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the applicable provisions of the Directive.

Nexen Group, Inc.  
560 Oak Grove Parkway  
Vadnais Heights, Minnesota 55127

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SIT S.A. | Tfn. 943 457200 | [atencioncliente@sitsa.es](mailto:atencioncliente@sitsa.es) | [www.sitsa.es](http://www.sitsa.es)


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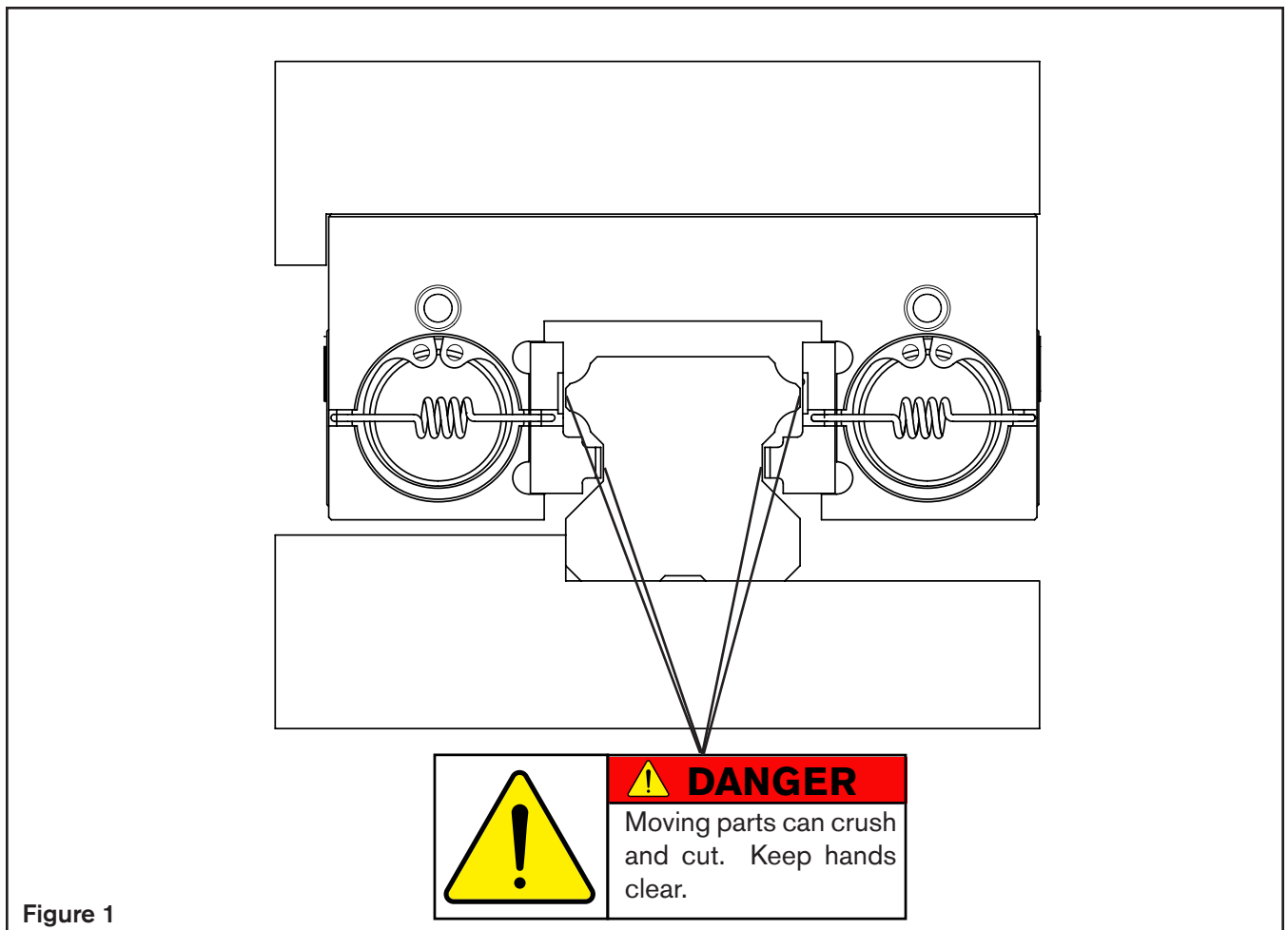
## GENERAL SPECIFICATIONS

Specifications	
Holding Force:	Up to 2600 N (585 lbs)
Release Pressure:	5.5 bar (80 psi)
Service Temperature:	4.5 - 50 C (40 - 120 F)
Backlash:	See Tech Data Sheet
Engaged Time:	See Tech Data Sheet

## GENERAL SAFETY PRECAUTIONS

	<p><b>CAUTION</b></p> <p>Watch for sharp features when installing and servicing the brake. The brake has complex and machined edges.</p>
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	<p><b>WARNING</b></p> <p>Keep indoors. This product is intended for indoor environments only. Use of the brake outdoors will damage components.</p>
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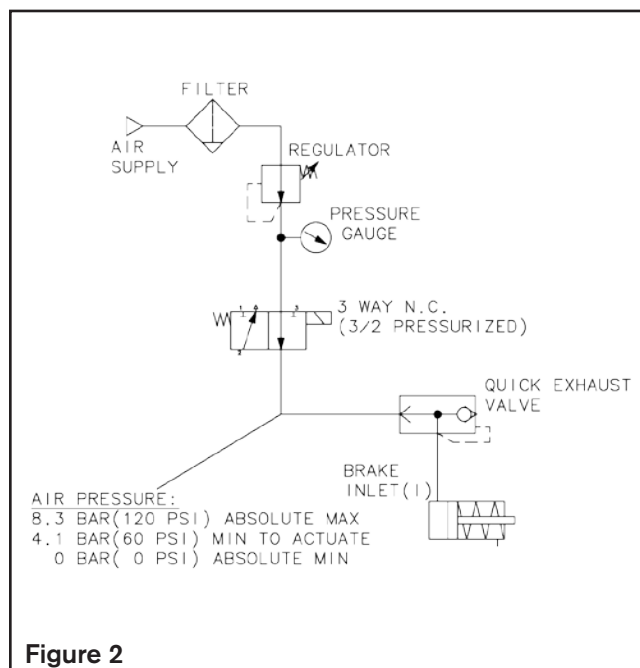
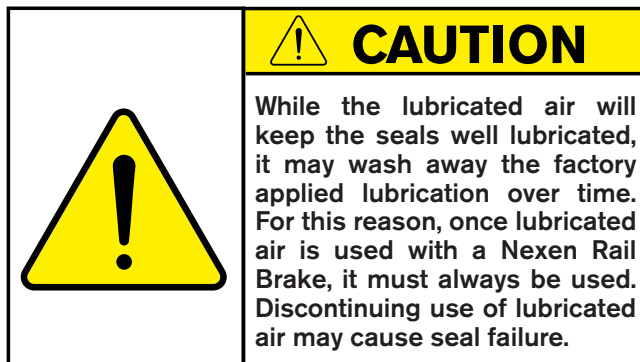
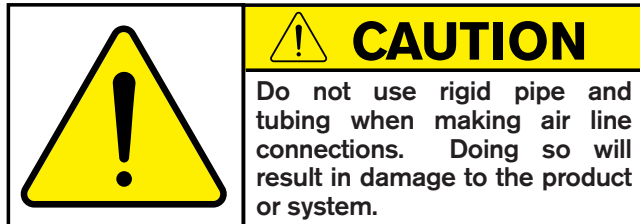
## INSTALLATION

### REQUIRED TOOLS

- Clean, pressurized air
- Mounting bolts and appropriate wrench  
(See Table 1)

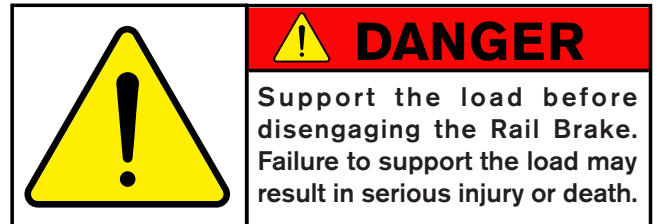
### AIR CONNECTIONS

All Nexen pneumatically actuated devices require clean and dry air, which meet or exceeds ISO 8373.1: 2001 Class 4.4.3 quality.



### ACCESSORIES

- 4 mm [5/32 inch] soft air tubing
- Air valve
- Quick exhaust valve (optional)

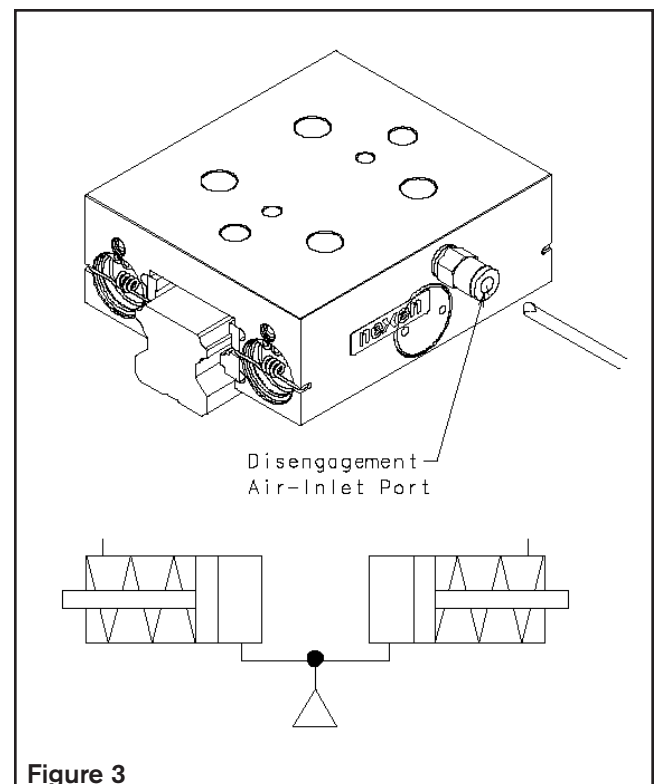




The Rail Brake is equipped with one air inlet port used to disengage the brake (Refer to Figure 2 for location).

**NOTE:** Clean air is important for proper Rail Brake functioning. Debris inside the Rail Brake may inhibit performance and/or decrease product life.

1. Route clean air to the Rail Brake using soft lines. Supply adequate air pressure to ensure complete disengagement.

**NOTE:** For faster engagement and disengagement, install the valve close to the Rail Brake. Increasing air pressures will also speed the disengagement time, but do not exceed 8.3 bar [120 psi] air pressure.

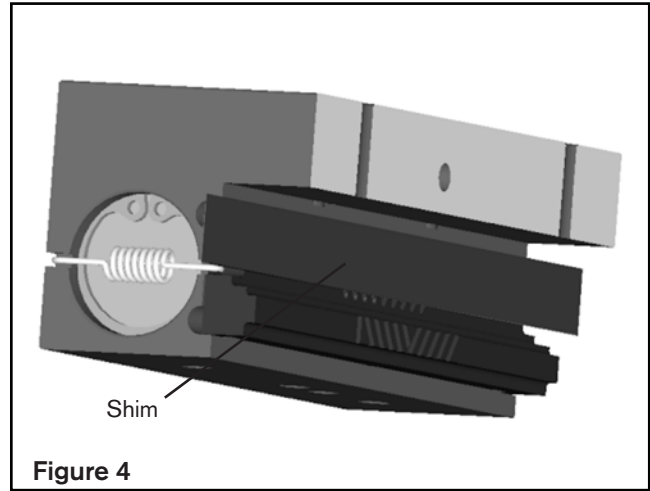


	<b>IMPORTANT</b>	
	<p>Carefully follow Steps 1-4 to ensure a successful Rail Brake installation. Do not use the dowel pin holes for brake installation. These holes are for manufacturing purposes only.</p>	

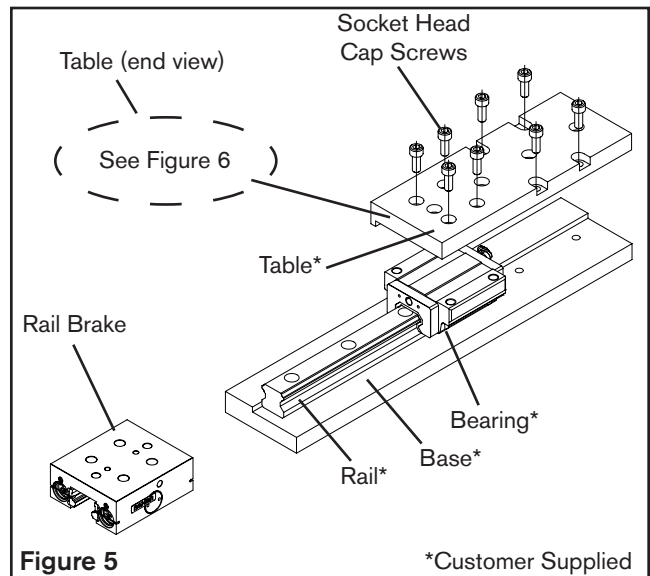
## MOUNTING ON A RAIL

**Assembly Shims:** This installation recommends the use of assembly shims to ensure proper alignment. The assembly shim is a .08mm (.003") rectangular shaped piece of shim stock that runs the full length of the facings. See Figure 4 for an example. Each shim will be different depending on rail type. The shim is customer provided and one is required for each side.

1. Disengage Brake.
  - a. **SPRING ENGAGED VERSION:** Apply minimum 5.5 BAR (80 PSI) to air inlet of brake to disengage. (Refer to AIR CONNECTIONS for details).
  - b. **AIR ENGAGED BRAKE:** Disengaged is the default position.
2. Using installation shims, slide brake onto rail with shims between the facing and the rail on both sides. The installation shims are approximately the same thickness as the gap between the facing and the rail. Because of this some drag is expected while completing this step.
3. Once brake is approximately in position, install mounting screws finger tight. Do not tighten at this point.
4. Engage Brake, this will center it on the rail, then tighten the mounting screws. Do not remove shims at this point.



**Figure 4**

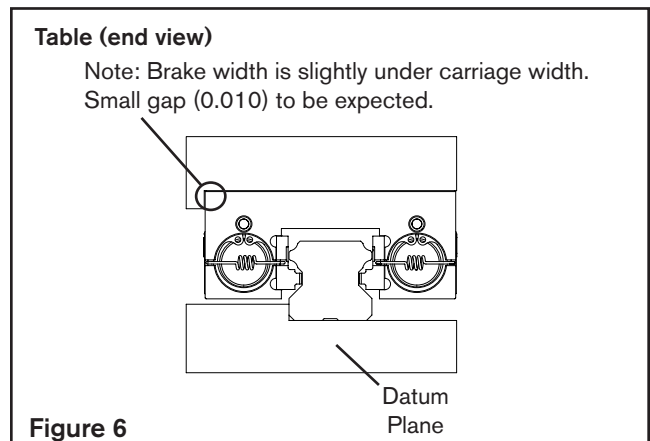


**Figure 5**

\*Customer Supplied

**Table 1**

Model	Socket Head Cap Screw Size
RB15	M5 x 0.8
RB20	M6 x 1.0
RB25	M8 x 1.25
RB30	M10 x 1.5
RB35	M10 x 1.5
RB45	M12 x 1.75




**Figure 6**

## ALIGNMENT VERIFICATION

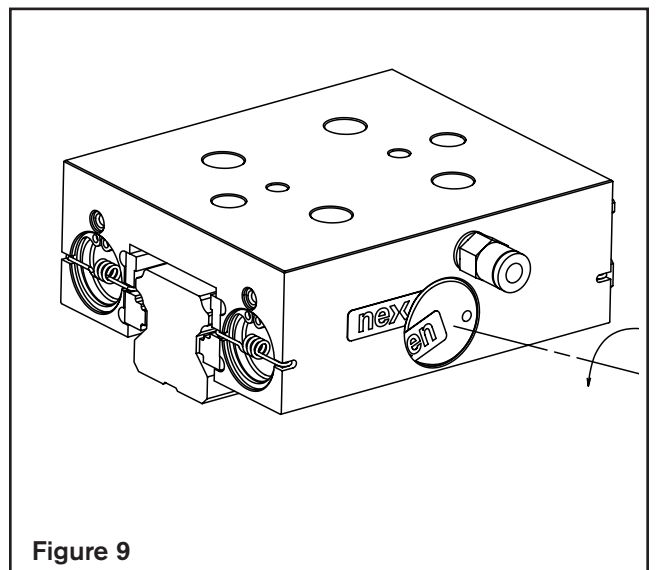
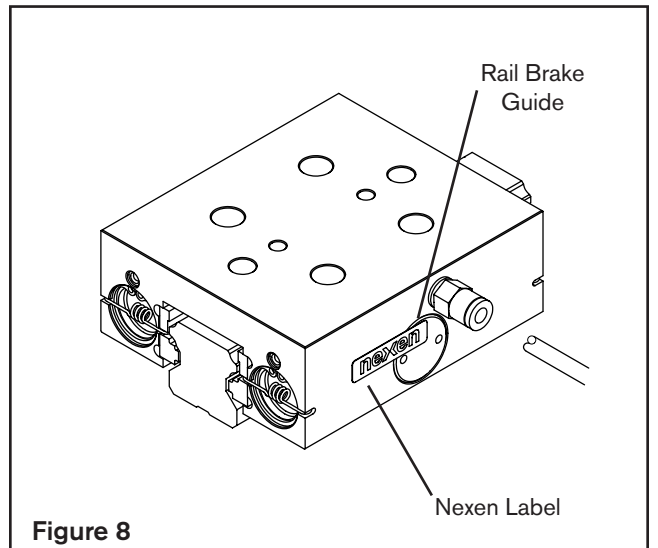
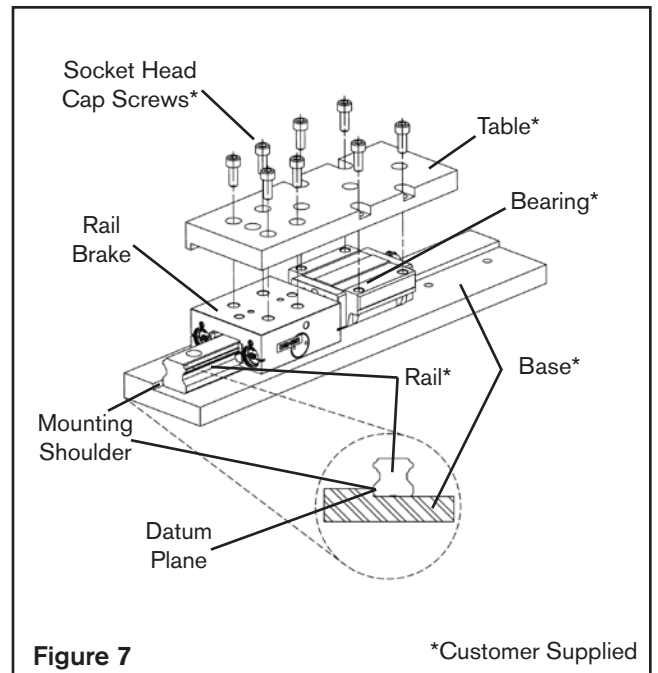
1. With the shims still in place, mounting bolts tightened, and brake disengaged, run the brake the full length of machine travel. If an alignment issue exists, the brake will drag at those spots where there is misalignment.
2. If an alignment issue is found re-adjust the rail per the manufacture's recommendations.
3. Remove shims.
4. Again by hand, run the brake the full length travel of the machine. NO drag should be felt between the facing and rail. If drag is experienced, repeat alignment steps.

## FRICION FACING GAP ADJUSTMENT

Friction facing Gap adjustment should not be necessary as the gap is factory set to accommodate standard rail sizes and types. Before attempting to adjust the facing gap. Ensure the mounting and alignment processes are complete.

	<p><b>WARNING</b></p>
<p>To achieve rated holding force the rail brake must maintain a close fit between the facing and the rail (Under .127mm [.005in]). Adjusting the brake to have a gap wider than this will cause performance reductions.</p>	

1. Disengage Brake.
2. Cut the label between the housing and the guide using a straight edge. Leave the label in place so it can act as a reference to the original position.
3. Adjust the position of the facing by turning the guides on each side of the counter clockwise. Notes regarding adjustment:
  - a. Make sure each side is turned an equal amount. Failure to do this could cause misalignment.
  - b. 1/8 of a turn is equivalent to approximately .127mm(.005in). There should be no need to adjust more than this amount.
4. Repeat mounting and alignment verification steps.



## FRICION FACING REPLACEMENT



1. With load supported, remove the mounting screws from the brake.
2. Disengage brake.
3. Slide the rail brake off the rail.
4. Using a small pliers, remove the facing return springs.



5. Carefully remove facings, while the facing is off the components behind the facing are not retained. Use caution not to lose small parts.
6. Install new facings.
7. Again, using a small pliers, reinstall the facings return springs.

## SERVICE RESTRICTIONS

NOTE: The Rail Brake assembly is designed for extended service life. Due to this long product life, stored spring energy, and the complexity of the internal components, Nexen recommends that all service be performed by trained personnel.

Do not attempt to remove or dismantle any part of the Rail Brake assembly. This product is spring loaded and under pressure. If the product malfunctions, replace the unit or contact Nexen.

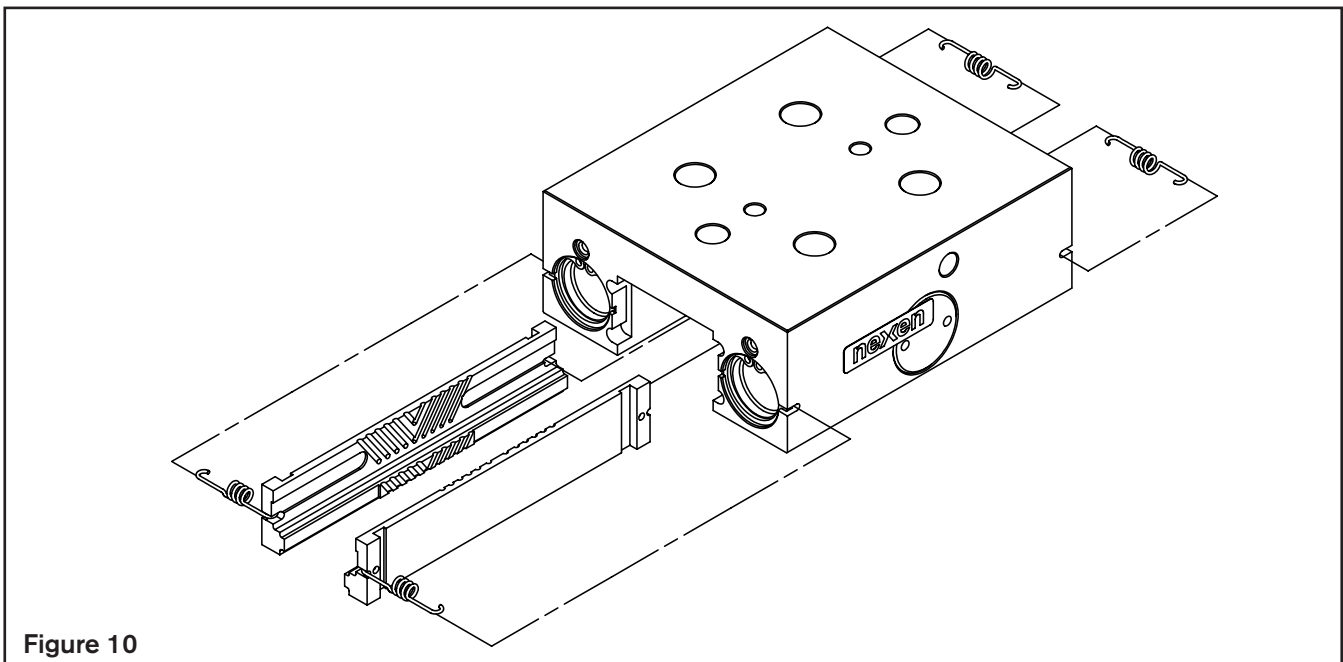


Figure 10



## WARRANTY

### Warranties

Nexen warrants that the Products will (a) be free from any defects in material or workmanship for a period of 12 months from the date of shipment, and (b) will meet and perform in accordance with the specifications in any engineering drawing specifically for the Product that is in Nexen's current product catalogue, or that is accessible at the Nexen website, or that is attached to this Quotation and that specifically refers to this Quotation by its number, subject in all cases to any limitations and exclusions set out in the drawing. NEXEN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. This warranty applies only if: (a) the Product has been installed, used and maintained in accordance with any applicable Nexen installation or maintenance manual for the Product; (b) the alleged defect is not attributable to normal wear and tear; (c) the Product has not been altered, misused or used for purposes other than those for which it was intended; and (d) Buyer has given written notice of the alleged defect to Nexen, and delivered the allegedly defective Product to Nexen, within one year of the date of shipment.

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The exclusive remedy for the Buyer for any breach of any warranties provided in connection with this agreement will be, at the election of Nexen: (a) repair or replacement with new, serviceably used, or reconditioned parts or products; or (b) issuance of credit in the amount of the purchase price paid to Nexen by the Buyer for the Products.

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Nexen Group, Inc.  
560 Oak Grove Parkway  
Vadnais Heights, MN 55127

800.843.7445  
Fax: 651.286.1099  
www.nexengroup.com

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