

**Rail Brake**  
**RBR20, RBR25, RBR30 and RBR35**






FORM NO. L-21600-E-0411

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.

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	<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.

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ISO 9001 Certified

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## GENERAL SPECIFICATIONS


Specifications	
Release Pressure:	*4.0 bar (60 psi)
Service Temperature:	4.5 - 50 C (40 - 120 F)
Approximate Weight:	RBR20 - 0.51 kg [1.12 lbs]
	RBR25 - 0.47 kg [1.04 lbs]
	RBR30 - 1.24 kg [2.74 lbs]
	RBR35 - 1.65 kg [3.63 lbs]

\*Rail brakes are factory set to disengage at 4 bar [60 psi]. However, an air pressure of 5.0 bar [72 psi] will ensure a minimum facing-to-rail clearance of .05 mm [.002"] per side. The additional clearance at 5.0 bar [72 psi] will help reduce facing drag caused by rail variation.


## GENERAL SAFETY PRECAUTIONS



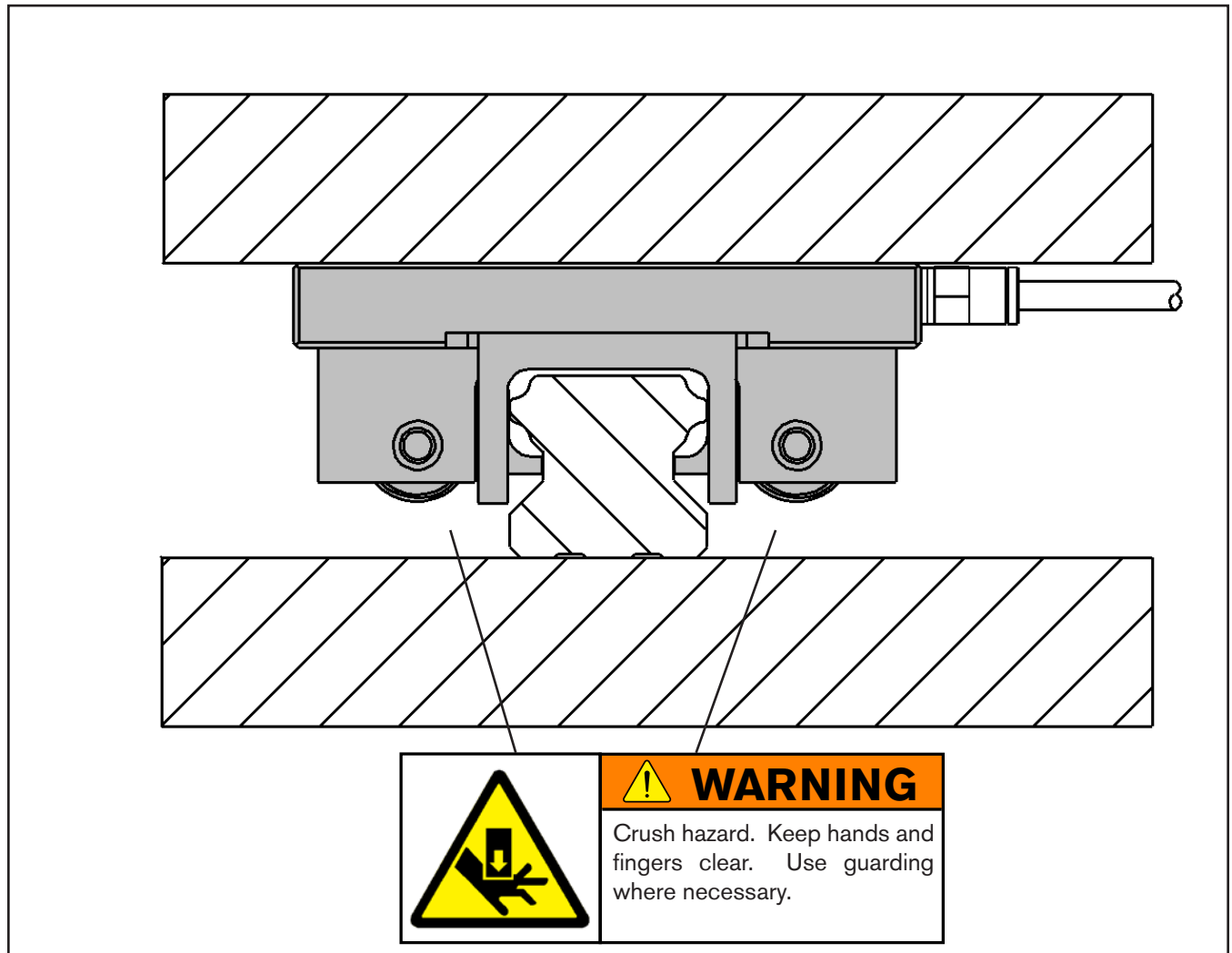
**! DANGER**  
Designed for static holding only. Any use as a dynamic or emergency-stop brake will result in a failure to hold the load and may cause serious injury or death.



**! CAUTION**  
Watch for sharp features when installing and servicing the brake. The brake has complex and machined edges.



**! WARNING**  
Keep indoors. This product is intended for indoor environments only. Use of the brake outdoors will damage components.



## INSTALLATION

### REQUIRED TOOLS

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

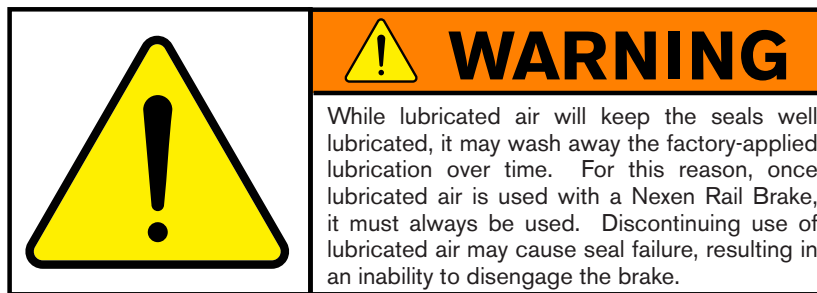
### ACCESSORIES

- Air valve
- Air fitting
- Quick exhaust valve (optional)

### AIR PREPARATION

All Nexen pneumatically actuated devices require clean and dry air, which meets or exceeds ISO 8573.1:2001 Class 4.4.3 quality.

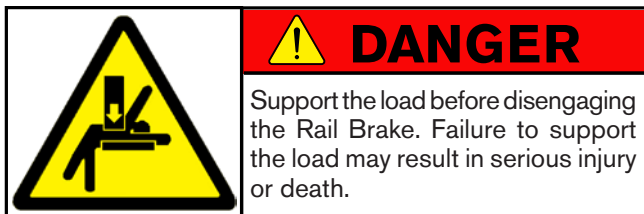
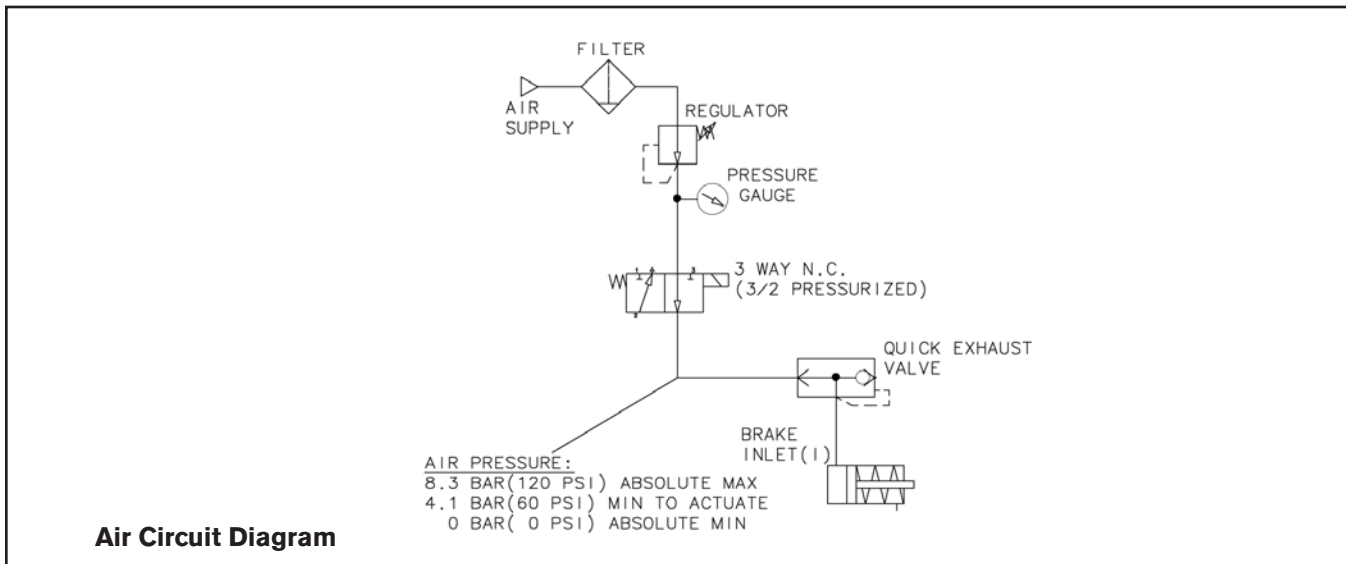
**NOTE:** Lubricated air may be used, but it is not required. The seals in all Nexen Rail Brakes are lubricated at the factory to ensure optimal performance and a long product life.



The most effective and economical way to lubricate Nexen Rail Brakes is with an Air Line Lubricator, which injects oil into the pressurized air, forcing an oil mist into the air chamber.

Synthetic lubricants are not recommended.

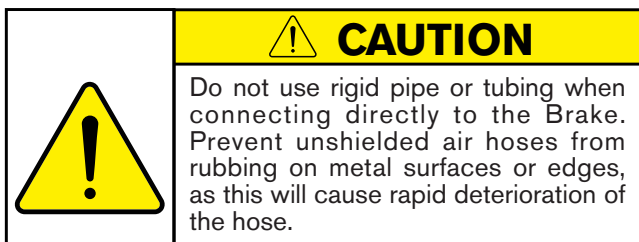
## AIR CONNECTIONS



The Rail Brake is equipped with one air inlet port used to disengage the brake (Refer to Figure 1 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.**

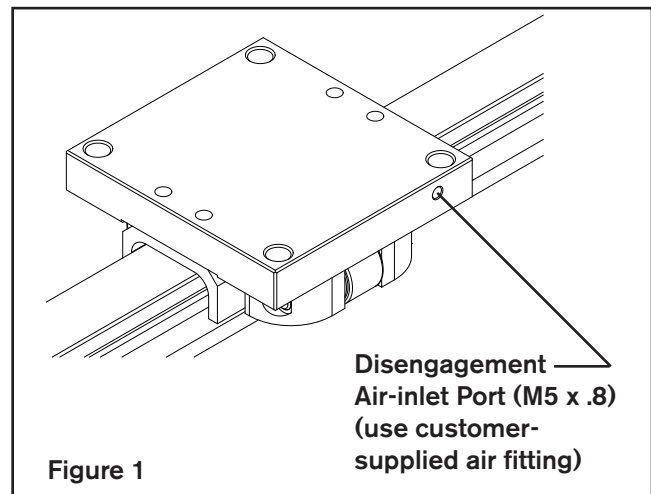
1. Route clean air to the Rail Brake using soft lines. Supply adequate air pressure to ensure complete disengagement.



**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 6.9 bar [100 psi] air pressure.**

## RELEASE PRESSURE / RAIL CLEARANCE

**NOTE: Rail brakes are factory set to fully disengage at 4.1 bar [60 psi]. However, a supplied air pressure of 5.0 bar [72 psi] will ensure a minimum of .05 mm [.002"] facing clearance on each side of the rail. The additional clearance at 5.0 bar [72 psi] will help reduce facing drag caused by rail irregularities.**



## MOUNTING ON A RAIL



**NOTE:** The Rail Brake Shoe gap is set at the factory to accommodate standard rails. Shoe gap is not adjustable.

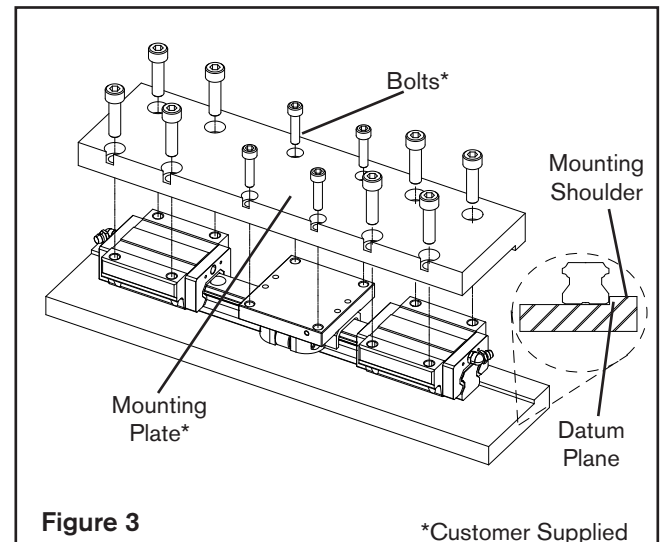
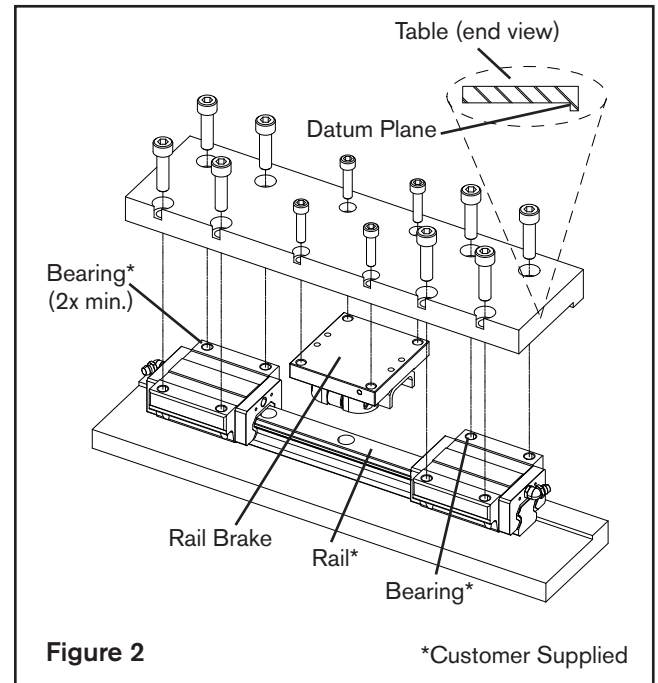
**NOTE:** Nexen rail brakes do not have an internal bearing system and must be mounted in conjunction with at least two bearing carriages (see figures 2 and 3). To ensure proper alignment, the bearing carriages should be mounted to a reference shoulder on the mounting plate (see figures 2 and 3). Nexen rail brakes, however, should not be aligned to the reference shoulder, but must be allowed to self-center on the rail. Accurate alignment is crucial to ensure proper brake function and prevent facing drag. For successful alignment, follow the installation steps below:

1. Nexen recommends a setup similar to the one shown in Figures 2 and 3. Apply air pressure to the rail brake to disengage it.
2. Slide the rail brake onto the rail. Position the rail brake between two bearing carriages as shown.
3. Loosely assemble the mounting plate to the rail brake and bearing carriages.

**NOTE:** RBR25; for THK SHS and INA KUBE models, install the shim (shipped loose with these models) between the mounting plate and the brake to match bearing height.

4. Align the bearing carriages to the reference shoulder and completely tighten the bearing carriage mounting screws.
5. Finger-tighten the rail brake mounting screws. Do not over-tighten the screws at this point; the brake must be allowed to shift slightly in the following step.
6. Engage the rail brake to lock it onto the rail. Disengage and reengage it three successive times to ensure that it centers on the rail.
7. With the rail brake engaged, completely tighten the rail brake mounting screws.
8. Disengage the rail brake and slide the assembly back and forth to check alignment. If the rail brake consistently drags along the rail, repeat steps 3-7 to realign the brake. If the rail brake drags only in certain locations along the rail, check and adjust rail straightness in those areas. If realignment and rail straightening do not fix problems with facing drag, the disengagement pressure of the rail brake can be increased to 5.0 bar [72 psi] to ensure a minimum of .05 mm [.002"] facing-to-rail clearance per side.

**NOTE:** Rail Brake must be disengaged with a minimum of 60 psi before mounting on a rail. Apply air pressure to disengage the Rail Brake (Refer to AIR CONNECTIONS for details).



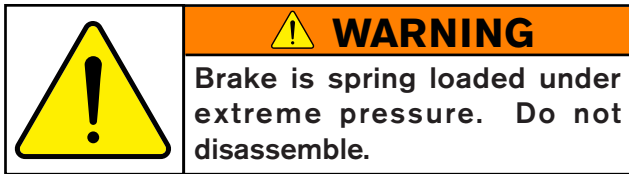
**Table 1**

Model	Socket Head Cap Screw <sup>1</sup> Size
RBR20	M6 x 1.0
RBR25	M6 x 1.0
RBR30	M6 x 1.0
RBR35	M10 x 1.5

<sup>1</sup> Important: Do not use flat-head screws for this installation.

## 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.



## 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.

### Exclusive Remedy

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.

### Agent's Authority

Buyer agrees that no agent, employee or representative of Nexen has authority to bind Nexen to any affirmation, representation, or warranty concerning the Products other than those warranties expressly set forth herein.

### Limitation on Nexen's Liability

TO THE EXTENT PERMITTED BY LAW NEXEN SHALL HAVE NO LIABILITY TO BUYER OR ANY OTHER PERSON FOR INCIDENTAL DAMAGES, SPECIAL DAMAGES, CONSEQUENTIAL DAMAGES OR OTHER DAMAGES OF ANY KIND OR NATURE WHATSOEVER, WHETHER ARISING OUT OF BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, NEGLIGENCE OR OTHER TORT, OR OTHERWISE, EVEN IF NEXEN SHALL HAVE BEEN ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SUCH POTENTIAL LOSS OR DAMAGE. For all of the purposes hereof, the term "consequential damages" shall include lost profits, penalties, delay damages, liquidated damages or other damages and liabilities which Buyer shall be obligated to pay or which Buyer may incur based upon, related to or arising out of its contracts with its customers or other third parties. In no event shall Nexen be liable for any amount of damages in excess of amounts paid by Buyer for Products or services as to which a breach of contract has been determined to exist. The parties expressly agree that the price for the Products and the services was determined in consideration of the limitation on damages set forth herein and such limitation has been specifically bargained for and constitutes an agreed allocation of risk which shall survive the determination of any court of competent jurisdiction that any remedy herein fails of its essential purpose.

### Inspection

Buyer shall inspect all shipments of Products upon arrival and shall notify Nexen in writing, of any shortages or other failures to conform to these terms and conditions which are reasonably discoverable upon arrival without opening any carton or box in which the Products are contained. Such notice shall be sent within 14 days following arrival. All notifications shall be accompanied by packing slips, inspection reports and other documents necessary to support Buyer's claims. In addition to the foregoing obligations, in the event that Buyer receives Products that Buyer did not order, Buyer shall return the erroneously shipped Products to Nexen within thirty (30) days of the date of the invoice for such Products; Nexen will pay reasonable freight charges for the timely return of the erroneously shipped Products, and issue a credit to Buyer for the returned Products at the price Buyer paid for them, including any shipping expenses that Nexen charged Buyer. All shortages, overages and nonconformities not reported to Nexen as required by this section will be deemed waived.

### Limitation on Actions

No action, regardless of form, arising out of any transaction to which these terms and conditions are applicable may be brought by the Buyer more than one year after the cause of action has accrued.

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