

DEZURIK NT NUT AND LEVER ACTUATOR

USED ON 4" - 8" PEC & 3" - 8" PEF ECCENTRIC VALVES

Instruction **D10061**
June 2014

Instructions

These instructions are for use by personnel who are responsible for the installation, operation and maintenance of DeZURIK valves, actuators or accessories.

Safety Messages

All safety messages in the instructions are identified by a general warning sign and the signal word CAUTION, WARNING or DANGER. These messages indicate procedures to avoid injury or death.

Safety label(s) on the product indicate hazards that can cause injury or death. If a safety label becomes difficult to see or read, or if a label has been removed, please contact DeZURIK for replacement label(s).

⚠WARNING

Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials. Handle valves which have been removed from service with suitable protection for any potential pipeline material in the valve.

Inspection

Your DeZURIK product has been packaged to provide protection during shipment; however, items can be damaged in transport. Carefully inspect the unit for damage upon arrival and file a claim with the carrier if damage is apparent.

Parts

Replaceable wear parts are listed on the assembly drawing. These parts can be stocked to minimize downtime. Order parts from your local DeZURIK sales representative or directly from DeZURIK. When ordering parts please provide the following information:

If the valve has a data plate: please include the 7-digit part number with either 4-digit revision number (example: 9999999R000) or 8-digit serial number (example: S1900001) whichever is applicable. The data plate will be attached to the valve assembly. Also, include the part name, the assembly drawing number, the balloon number and the quantity stated on the assembly drawing.

If there isn't any data plate visible on the valve: please include valve model number, part name, and item number from the assembly drawing. You may contact your local DeZURIK Representative to help you identify your valve.

DeZURIK Service

DeZURIK service personnel are available to maintain and repair all DeZURIK products. DeZURIK also offers customized training programs and consultation services. For more information, contact your local DeZURIK sales representative or visit our website at DeZURIK.com.

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Description

The 4" - 6" PEC & 3" - 6" PEF Eccentric valves can be actuated with the LV or LVF lever operators or with other levers that fit the 2" NT wrenching nut. Recommended lengths for levers are dependent upon valve size and maximum pressure drop expected across the valve as shown in Table A.

Table A: Lever Length

Valve Size	Lever Length			
	Pressure Drop			
	25 psi 170 kPa	50 & 75 psi 345 & 515 kPa	100 psi 690 kPa	125 psi 860 kPa
3 & 4 in 80 & 100 mm	15 in 381mm	15 in 381mm	15 in 381mm	15 in 381mm
5 & 6 in 125 & 150 mm	23 in 584 mm	30 in 762 mm	-	-
8 in 200 mm	30 in 762 mm	33 in 838 mm	43 in 1092 mm	-

Pressure Ratings

Direct shutoff pressure differentials for nut or lever actuated valves must not exceed the limits shown in Table B.

Note: Reverse shutoff differentials must not exceed 25 psi (170 kPa).

If valves must seal higher pressures, use handwheel actuators.

Table B: Maximum Shutoff Pressure Differentials

Valve Size	Nitrile-Butadiene (Buna V) NBR Packing (with Friction Cone)	Low Friction Nitrile-Butadiene (Buna V) NBRL Packing (without Friction Cone)
3 & 4 in 80 & 100 mm	125 psi 860 kPa	40 psi 275 kPa
5 - 8 in 125 - 200 mm	100 psi 690 kPa	25 psi 170 kPa

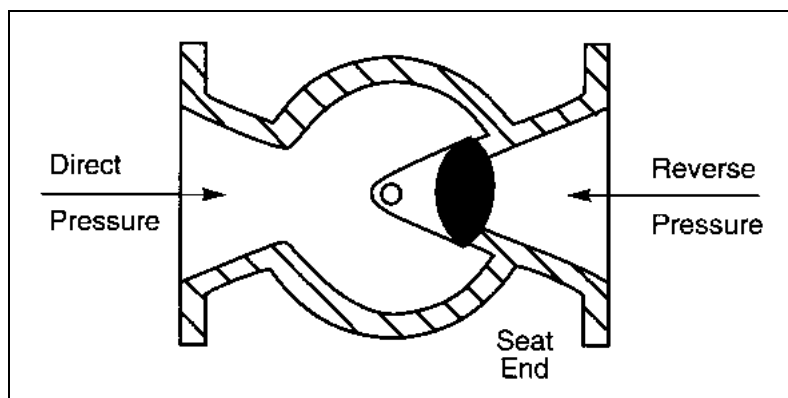


Figure 1 - Direct and Reverse Pressure Detail

Operation

Slowly rotate the lever clockwise around the valve stem to close the valve.



CAUTION!

Close the valve slowly. Rapid closure of the valve can cause pipeline pressure surges that will damage pipeline equipment.

Stop Adjustments

This actuator features open and closed position stops. These stops can be adjusted to stop valve stroke at the fully open and fully closed valve positions, or at any other valve position as desired to allow full control of your flow system.

Open Position Stop

The open position stop is a socket head cap screw and nut located in the slot in the gland. To change the stop setting, loosen the nut, slide the screw to the desired stop location, then tighten the nut. Check the stop setting by operating the valve until the lug contacts the stop; readjust the stop if necessary.

Closed Position Stop

The closed position setting for PEC Eccentric valves is determined by torquing the valve plug into the seat. To set the closed position stop, turn the closed position stop screw counterclockwise several turns, torque the plug into the seat to the torque specified in Table C, then turn the closed position stop screw clockwise until it contacts the adaptor.

Table C: Valve Seating Torque

Valve Size	Valve Seating Torque
3 & 4 in 80 & 100 mm	150 ft lbs 200 N-M
5 & 6 in 125 mm & 150 mm	180 ft lbs 245 N-M
8 in 200 mm	300 ft lbs 400 N-M

Removing Actuator

1. Stop pipeline flow.



WARNING!

Flow in the pipeline with the actuator removed can allow the valve to slam closed and cause personal injury and/or damage to the flow system. Shut down the flow in the pipeline before removing the actuator.

2. Scribe a line on the wrenching nut, packing gland and the valve bonnet for alignment during assembly.
3. Remove the nut recessed in the top of the wrenching nut.
4. Lift the wrenching nut off the plug stem.

Note: Do not lose the washers that are in the recessed hole.

Installing Actuator

1. Line up the scribe marks on the wrenching nut and packing gland, then set the wrenching nut on the plug stem.
2. Slide the flat washer (PEC Valves only) down the plug stem stud, then install the spring washers as shown in Figure 2.
3. Screw the lock nut down the plug stud until it is tight and the spring washers are completely compressed, then back the nut off one full turn.

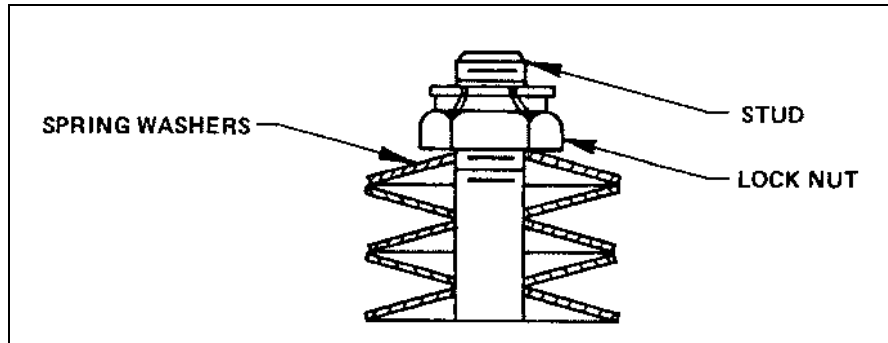


Figure 2 – Spring Washer Stackup

Limited Warranty

DeZURIK, Inc. ("Seller") manufactured products, auxiliaries and parts thereof that we manufacture for a period of twenty-four (24) months from date of shipment from Seller's factory, are warranted to the original purchaser only against defective workmanship and material, but only if properly stored, installed, operated, and serviced in accordance with Seller's recommendations and instructions.

For items proven to be defective within the warranty period, your exclusive remedy under this limited warranty is repair or replacement of the defective item, at Seller's option, FCA Incoterms 2020 Seller's facility with removal, transportation, and installation at your cost.

Products or parts manufactured by others but furnished by Seller are not covered by this limited warranty. Seller may provide repair or replacement for other's products or parts only to the extent provided in and honored by the original manufacturer's warranty to Seller, in each case subject to the limitations contained in the original manufacturer's warranty.

No claim for transportation, labor, or special or consequential damages or any other loss, cost or damage is being provided in this limited warranty. You shall be solely responsible for determining suitability for use and in no event shall Seller be liable in this respect.

This limited warranty does not warrant that any Seller product or part is resistant to corrosion, erosion, abrasion or other sources of failure, nor does Seller warrant a minimum length of service.

Your failure to give written notice to us of any alleged defect under this warranty within twenty (20) days of its discovery, or attempts by someone other than Seller or its authorized representatives to remedy the alleged defects therein, or failure to return product or parts for repair or replacement as herein provided, or failure to store, install, or operate said products and parts according to the recommendations and instructions furnished by Seller shall be a waiver by you of all rights under this limited warranty.

This limited warranty is voided by any misuse, modification, abuse or alteration of Seller's product or part, accident, fire, flood or other Act of God, or your failure to pay entire contract price when due.

The foregoing limited warranty shall be null and void if, after shipment from our factory, the item is modified in any way or a component of another manufacturer, such as but not limited to; an actuator is attached to the item by anyone other than a Seller factory authorized service personnel.

All orders accepted shall be deemed accepted subject to this limited warranty, which shall be exclusive of any other or previous warranty, and this shall be the only effective guarantee or warranty binding on Seller, despite anything to the contrary contained in the purchase order or represented by any agent or employee of Seller in writing or otherwise, notwithstanding, including but not limited to implied warranties.

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Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web site: www.dezurik.com E-Mail: info@dezurik.com



250 Riverside Ave. N., Sartell, MN 56377 • Phone: 320-259-2000 • Fax: 320-259-2227

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