



**WARNING:** Installation, usage and maintenance of this

product **must** be in compliance with all RegO® instructions as well as requirements and provisions of NFPA #54, NFPA #58, DOT, ANSI, all applicable federal, state, provincial and local standards, codes, regulations and laws.

Inspection and maintenance on a periodic basis is essential. Installation and maintenance should be performed only by qualified personnel.

Be sure all instructions are read and understood before installation, operation and maintenance. These instructions must be passed along to the end user of the product.

**CAUTION:** Contact or inhalation of liquid propane, ammonia and their vapors can cause serious injury or death! NH<sub>3</sub> and LP-Gas must be released outdoors in air currents that will insure dispersion to prevent exposure to people and livestock. LP-Gas must be kept far enough from any open flame or other source of ignition to prevent fire or explosion! LP-Gas is heavier than air and will not disperse or evaporate rapidly if released in still air.

### Installation

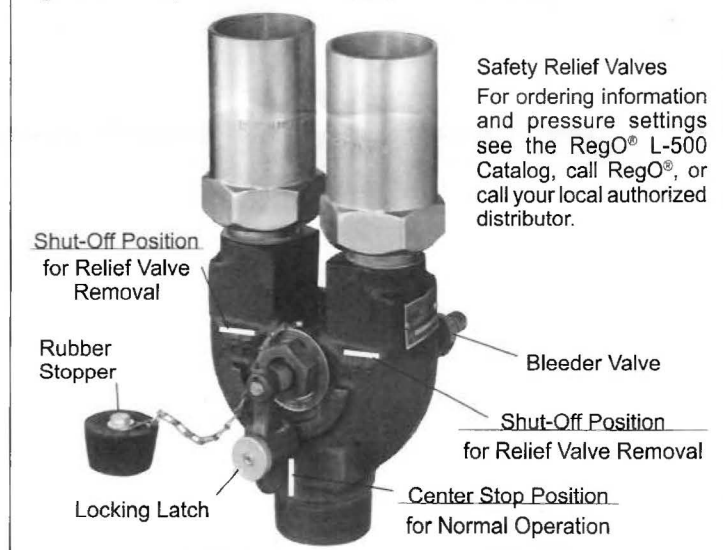
The 8542 Series is designed especially for use as a primary relief device on smaller stationary storage containers up to 1200 gallons water capacity with 2" NPT threaded couplings. These manifolds allow servicing or replacement of either of the two relief valves without evacuating the container or loss of service. The operating lever selectively closes off the entrance port to the relief valve being removed while the remaining valve provides protection for the container and its contents. The rating of each manifold is based on actual flow through the manifold and a single pressure relief valve, taking friction loss into account. It is not merely the rating of the relief valve alone.

If the DuoPort Manifold is to be used with a vent stack, the following installation procedures should be observed:

1. Be certain that an RegO® 3135-10 pipe-away adapter is threaded into the outlet of each safety relief valve. In addition to providing a 2" NPT female connection for the installation of 2" pipe, this adapter has an externally machined weakness groove to facilitate breakage at this point, leaving the valve itself fully operative in case undue stresses are applied to the vent piping.
2. Limit the height of the vent stack to a minimum. Be sure to include the approximate overall height of the DuoPort (11-9/16") in determining the overall height of the vent required



**Figure 1: Duoport® Pressure Relief Valve Manifold**



## 8542 Series Duoport® Safety Relief Valve Manifold

### Installation, Operation and Service Instructions

above the top of the container.

3. Secure the two vent stacks firmly to each other midway or at the top to break the wind velocity between the stacks and to reduce the tendency to vibrate or oscillate. This may be accomplished by inserting a wooden block between the stacks and clamping them together at this point.

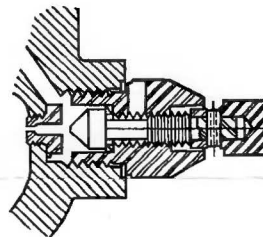
### Operation

In normal operation, the handle is kept at the center stop. In this position, both relief valves are open to the container vapor space. This provides extra relief capacity by permitting both valves to function simultaneously if necessary.

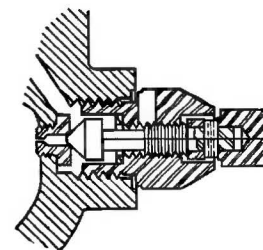
To remove a safety relief valve for retesting or replacement:

1. Pull out the locking latch to release the handle. See Figure 1.
2. Rotate the handle upward to position beneath the valve to be removed. See Figures 1 and 3.

**Figure 2: Bleeder Valve Detail**

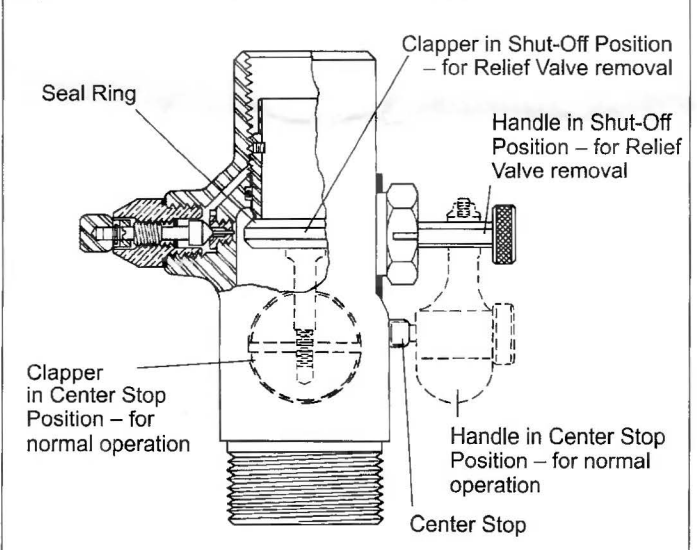


Bleeder Valve in back-seated position – normal operating position. Permits equalization of pressure on both sides of shut-off disc after relief valve has been reinstalled.



Bleeder Valve in the closed position. Permits pressure trapped between relief valve and shut-off disc to be bled off so relief valve can be removed.

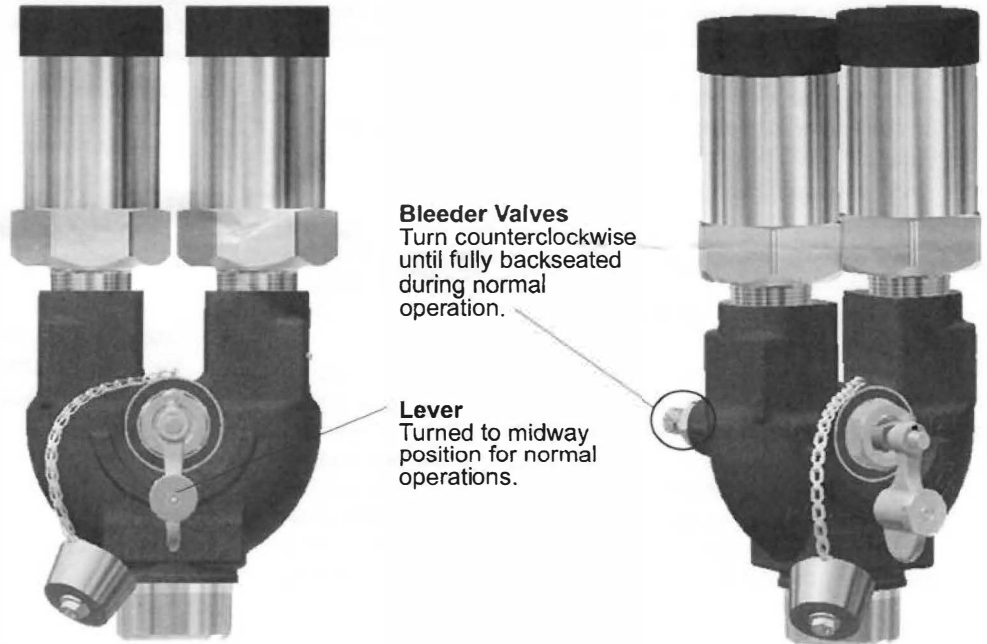
**Figure 3: Side view without relief valves**



# SUGGESTED MAINTENANCE GUIDE

## Duoport® Pressure Relief Valve Manifold Assemblies

Duoport® Pressure Relief Valve Manifolds are designed for continuous, uninterrupted service on pressurized storage containers with 2" NPT(F) threaded openings. Since these Duoport® Manifolds are exposed to the environment, regular inspections and maintenance are required. The following suggested schedule will help to keep the Duoport® in operating condition.



This suggested maintenance schedule is not intended to be a training manual, and RegO® assumes no responsibility for proper training relating to the safe maintenance or use of the Duoport®. Inspection and maintenance of the Duoport® should be conducted only by properly trained persons. The frequency of inspection and maintenance suggested here are based on ideal environmental conditions. However, because the Manifold may be used under different environmental conditions, the frequency of inspection and maintenance should be adjusted based upon the actual environmental conditions in which it is used.

**WARNING: Failure to properly inspect and maintain the Duoport® relief valve manifold and relief valves may result in personal injury or property damage, or both.**

Manifold Placed in Service:  
Month / Day / Year

/ /

		Daily	6 Months	1 Year	10 Year
1	Verify pipe away stacks are intact with rain caps secured and in position on top of each relief valve.	✓			
2	Verify weep hole deflectors are open and clean. If the relief valve is equipped with a deflector kit, verify opening is open and clean and installed pointing upwards on each relief valve.		✓		
3	With both relief valves in service – cycle the manifold lever by swinging the Manifold Shut-Off Disc in clockwise and counterclockwise closed positions.		✓		
4	Following this maintenance, the handle should be returned to a normal operating position - the handle is kept at the center stop. In this position, both relief valves are open to the container vapor space.		✓		
5	With both relief valves in service - verify each bleeder valve can be opened and resealed leak tight. Cycle the bleeder thumbscrews and check for smooth operation.		✓		
6	After cycling, turn the bleeder valve thumbscrew counterclockwise until fully backseated - the position for normal operation.			✓	
7	Inspect the entire manifold and threaded connection for leaks using a non-corrosive leak detection solution. If leaks are detected, correct immediately.				✓

• For additional information, consult Catalog L-500 and Warning Bulletin WB-6 on Pressure Relief Valves.

3. Release the locking latch when the handle clears the ledge marking the off position. The spring loaded latch automatically retains the handle in this position.
4. Do not attempt to remove the safety relief valve until the vapor trapped between the valve seat disc and clapper disc is exhausted.
5. To exhaust the trapped vapor, turn the appropriate bleeder valve clockwise until it is firmly seated in the closed position. The vapor will then vent. If this discharge continues for more than a few seconds, either the handle is not firmly locked in the off position or the bleeder valve is not completely shut-off. See Figure 2.
6. Once the vapor discharge stops, do not attempt to move the handle.
7. The 2-11/16" wrench flats on the safety relief valve facilitate removal after the discharge stops. The tank vapor pressure maintains a leak-tight seal between the clapper disc and seal ring.
8. If an extra safety relief valve is not immediately at hand to replace the one that was removed, the open port must be sealed with the rubber stopper to prevent the entrance of moisture and contaminants. Do not use a pipe plug or otherwise make a pressure-tight seal. This may allow internal pressure to equalize, and permit turning the handle to close off the other safety relief valve, leaving the tank unprotected. Do not attempt to move the handle or bleeder valves while any port is without a safety

relief valve.

## Valve Replacement

**NOTE:** Use only RegO® 3135 Safety Relief Valves in RegO® 8542 DuoPort Manifolds. These valves have been specially machined for this service.

Repair must be performed in a clean area. Hands, clothing, tools and work area must be completely free of oil, grease and foreign matter to prevent contamination of component parts and valves.

1. Apply a small amount of a suitable pipe joint compound to the male threads of safety relief valve. Do not apply compound to DuoPort threads.
2. Screw in the replacement safety relief valve, using sufficient torque to produce a leak-tight seal.
3. Turn the bleeder valve counterclockwise until it back-seats firmly. This permits pressure equalization between the tank and the space below the safety relief valve.
4. Use a high quality leak detection solution to check the seal on the replaced safety relief valve to assure a leak tight seal.
5. The handle should now be returned to the center stop and locked in place so that the clapper is not under either safety relief valve.

### NOTICE

LP-Gas is extremely flammable and explosive. Failure to install parts exactly as described in the instructions could result in a product that will not perform satisfactorily. Even if parts are correctly installed, the product might fail to perform satisfactorily, if other parts are worn, corroded or dirty. Improper repair can cause leaks and malfunction, which could result in bodily injury and property damage. Any such use or installation of parts must ONLY be done by experienced and trained personnel using accepted governmental and industrial safety procedures.

Most RegO® products are listed with Underwriters Laboratories as manufactured. If repaired, the continued validity of the UL listing is contingent upon proper inspection to determine what needs repairing, proper repair using RegO® parts and procedures, and proper testing for leakage and performance following repairs and installation.

RegO® assumes no responsibility or liability for performance of products repaired in the field. It must be clearly understood that the person or organization repairing the product assumes total responsibility for performance of the product.

### LIMITED 10 YEAR WARRANTY

RegO® warrants to the original purchasers the products and repair kits manufactured by it to be free from defects in materials and workmanship under normal use and service for a period of 10 years from the date of manufacture. If within thirty days after buyer's discovery of what buyer believes is a defect, buyer notifies in writing and ships (at buyer's expense) the product to RegO® at 100 RegO Drive, Elon, N.C. 27244, RegO®, at its option, and within forty-five days of receipt, will repair, replace F.O.B. point of manufacture, or refund the purchase price of that part or product found by RegO® to be defective. Failure of buyer to give such written notice and ship the product within thirty days shall be deemed an absolute and unconditional waiver of any and all claims of buyer arising out of such defect.

This warranty does not extend to any product or part that is not installed and used continuously after installation in accordance with RegO®'s printed instructions, all applicable state and local regulations, and all applicable national standards, such as those promulgated by NFPA, DOT and ANSI. This warranty does not extend to any product or part that has been damaged by accident, misuse, abuse, failure to maintain, or neglect, nor does it extend to any product or part which has been modified, altered, disassembled, or repaired in the field. This warranty does not cover any cosmetic issues, such as scratches, dents, marking, fading of colors or discoloration.

**EXCEPT AS EXPRESSLY SET FORTH ABOVE, AND SUBJECT TO THE LIMITATION OF LIABILITY BELOW, REGO® MAKES NO OTHER WARRANTY, AND EXPRESSLY DISCLAIMS, ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO ITS PRODUCTS AND PARTS, WHETHER USED ALONE OR IN COMBINATION WITH OTHERS. REGO® DISCLAIMS ALL WARRANTIES NOT STATED HEREIN.**

This Limited Warranty is given by Engineered Controls International LLC, of 100 RegO Drive Elon, NC 27244 USA, (336) 449-7707.

### LIMITATION OF LIABILITY

RegO® total liability for any and all losses and damages arising out of any cause whatsoever shall in no event exceed the purchase price of the products or parts in respect of which such cause arises, whether such causes be based on theories of contract, negligence, strict liability, tort or otherwise.

RegO® shall not be liable for incidental, consequential or punitive damages or other losses. RegO® shall not be liable for, and buyer assumes any liability for all personal injury and property damage connected with the handling, transportation, possession, further manufacture, other use or resale of products, whether used alone or in combination

with any other products or materials.

From time to time buyers might call to ask RegO® for technical advice based upon limited facts disclosed to RegO®. If RegO® furnishes technical advice to buyer, whether or not a buyer's request, with respect to application, further manufacture or other use of the products and parts, RegO® shall not be liable for such technical advice or any such advice provided to buyer by any third party and buyer assumes all risks of such advice and the results thereof.

**NOTE:** Some states do not allow the exclusion or limitation of incidental, consequential or punitive damages, so the above limitation or exclusion may not apply to you. The warranty gives you specific legal rights, and you may have other rights that vary from state to state. The portions of the limited warranty and limitation of liability shall be considered severable and all portions which are not disallowed by applicable law shall remain in full force and effect.

The benefits given by the Limited Warranty, above are in addition to any other rights and remedies to which you may be entitled by law.

**NOTE TO AUSTRALIAN PURCHASERS:** The following applies if you purchased this product as a "consumer" as defined in the Australian Consumer Law. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Information regarding how to return a product and make a claim under this Limited Warranty is set forth below.

Nothing in this document purports to modify or exclude your rights if any under the Australian Consumer Law, or other laws which cannot be lawfully be modified or excluded.

### WARNING

All RegO® products are mechanical devices that will eventually become inoperative due to wear, corrosion and aging of components made of materials such as rubber, etc. The environment and conditions of use will determine the safe service life of these products. Periodic inspection and maintenance are essential to avoid serious injury and property damage.

Many RegO® products are manufactured components which are incorporated by others on or in other products or systems used for storage, transport, transfer and otherwise for use of toxic, flammable and dangerous liquids and gases. Such substances must be handled by experienced and trained personnel only, using accepted governmental and industrial safety procedures.

### NOTICE TO USERS OF PRODUCTS

The Limited Warranty stated above is a factory warranty to the first purchasers of RegO® products. Since most users have purchased these products from RegO® distributors, to make a claim under this Limited Warranty the user must within thirty (30) days after the user's discovery of what user believes is a defect, notify in writing and return the product (at the user's expense) to the distributor from whom he purchased the product/part. The distributor may or may not at the distributor's option choose to submit the product/parts to RegO®, pursuant to this Limited Warranty. Failure by buyer to give such written notice and return the product within thirty (30) days shall be deemed an absolute and unconditional waiver of buyer's claim for such defects. Acceptance of any alleged defective product/parts by RegO®'s distributor for replacement or repairs under the terms of RegO®'s Limited Warranty in no way determines RegO®'s obligations under this Limited Warranty.

Because of a policy of continuous product improvement, RegO® reserves the right to change designs, materials or specifications without notice.



PART OF OPW | a **GOVER** company

RegO® is a registered trademark of Engineered Controls International, LLC.

Printed in the USA REV J 09-0224-0311-0479  
Instruction Sheet 8542-301

Elon, N.C. 27244 U.S.A. Phone +1 (336) 449-7707 Fax (336) 449-6594 [www.regoproducts.com](http://www.regoproducts.com)