# **DuoPort® Pressure Relief Valve Manifolds for Small Storage Containers** 8542 Series

# **Application**

Designed especially for use as a primary relief device on smaller stationary storage containers, 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.

### Features

- Allows for relief valve removal and replacement on a periodic basis without shutting down and evacuating the container.
- Unique seat ring assemblies provide a smooth tubular section to • preclude turbulence and ensure more efficient flow capacity.
- Operating lever is only locked in the mid-position or in a position • to seal either relief valve. Placement of the clapper disc in an intermediate position could restrict flow through one of the relief valves, causing it to chatter and destroy the resilient seat disc.
- A rubber plug with chain is provided to protect manifold outlet • threads where the relief valve has been removed.
- "Pop-action" design insures maximum protection with only minimal product loss at moderately excessive pressures.
- Resilient relief valve seat disc provides "bubble-tight" seal.
- Relief valves are ASME rated for use with LP-Gas and anhydrous ammonia.

# **Manifold Materials**

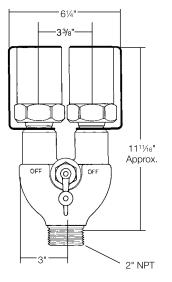
| Body          | Ductile Iron    |
|---------------|-----------------|
| Clapper Disc  | Stainless Steel |
| Bleeder Valve | Stainless Steel |
| Seat Disc     | Teflon          |
| Packing       | Polyethylene    |

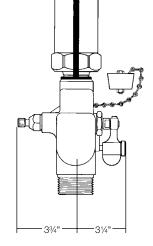
# **Relief Valve Materials**

| Body                                                        | Forged Aluminum*                             |
|-------------------------------------------------------------|----------------------------------------------|
| Spring Guide                                                |                                              |
| Spring                                                      |                                              |
| Seat Disc                                                   | Resilient Synthetic Rubber                   |
| *A special coating is applied to the inlet threads to minim | nize the possibility of electrolytic action. |



8542





# **Ordering Information**

|             | Start to                                     | Applie       | cation       | Container    | Relief Valve Included |              |              |          | Flow Capacity SCFM/Air** (<br>120% of set pressure) |          |             |                               |                      |                                           |                                             |  |           |          |
|-------------|----------------------------------------------|--------------|--------------|--------------|-----------------------|--------------|--------------|----------|-----------------------------------------------------|----------|-------------|-------------------------------|----------------------|-------------------------------------------|---------------------------------------------|--|-----------|----------|
| Part Number | mber Discharge<br>Setting PSIG<br>LP-Gas NH3 |              | Connection   |              |                       |              | Accessories  |          |                                                     |          |             |                               |                      |                                           |                                             |  |           |          |
|             |                                              | Setting PSIG | Setting PSIG | Setting PSIG | Setting PSIG          | Setting PSIG | LP-Gas       | NH3      | M. NPT                                              | Quantity | Part Number | Inlet<br>Connection<br>M. NPT | Pipeaway<br>Adaptors | UL Rating (at<br>120% of set<br>Pressure) | ASME Rating<br>(at 120% of set<br>Pressure) |  |           |          |
| 8542G       | 250                                          | Yes          | No           |              |                       | 3135MG       |              | 3135-10* | 5250 (1)                                            | NA       |             |                               |                      |                                           |                                             |  |           |          |
| 8542AG      | 250                                          | 165          |              |              |                       | <b>o</b> "   | 2            | 31351013 | 1¼"                                                 | 5155-10  | NA          | 5549 (1)                      |                      |                                           |                                             |  |           |          |
| AA8542UA250 | 265                                          | No           |              | Vee          | /es                   | 2            | AA3135MUA250 | 1/4      | AA3135-10*                                          | 6430 (1) | 6341 (1)    |                               |                      |                                           |                                             |  |           |          |
| AA8542UA265 | 205                                          | INU          | 165          |              |                       |              |              |          |                                                     |          |             |                               |                      |                                           | AA3135MUA265                                |  | AA3135-10 | 6615 (1) |

\* 2" F. NPT outlet connection.

\*\* Flow rating based on number of relief valves indicated in parenthesis (). Flow rates shown are for bare relief valves. Adapters and pipeaways will reduce flow rates as discussed in the Foreword section.



# **Delta Port Relief Valve Manifolds** 8530/AA8530 Series

# Application

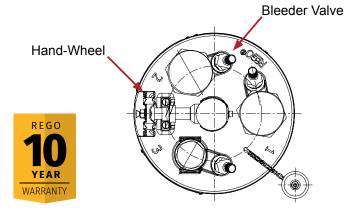
Designed especially for use as a primary relief device on large stationary pressurized storage containers, the base is supplied with a two-inch NPT threaded container connection. These manifolds incorporate an additional relief valve, not included in the flow rating, allowing for servicing or replacement of any one of the relief valves without evacuating the container. The hand-wheel on the manifold selectively closes off the entrance port to the relief valve being removed while the remaining relief valves provide protection for the container and its contents. All manifold flow ratings are based on flow through the relief valves after one has been removed for service or replacement.

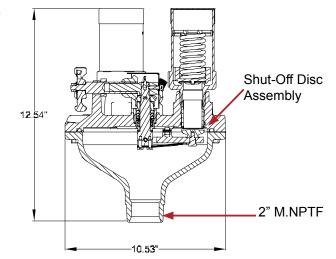
# **Materials**

| Body            | Ductile Iron    |
|-----------------|-----------------|
| Resilient Parts | Teflon          |
| Clapper Disc    | Stainless Steel |
| Bleeder Valve   |                 |

### **Relief Valve Materials**

| Body (3135)               | Brass                      |
|---------------------------|----------------------------|
| Spring Gide (3135)        |                            |
| Body (AA3135)             | Aluminum                   |
| Spring Guide (AA3135)     | Aluminum                   |
| Spring (3135 & AA3135)    | Stainless Steel            |
| Seat Disc (3135 & AA3135) | Resilient Synthetic Rubber |





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# **Ordering Information**

|             |                           | Applie | cation |                      |         |             |                       |                        |                                        |                 |            |  |
|-------------|---------------------------|--------|--------|----------------------|---------|-------------|-----------------------|------------------------|----------------------------------------|-----------------|------------|--|
|             | Start to                  |        |        | Container            |         |             | Inlet                 | Accessories            | ASME Flow Rating                       |                 |            |  |
| Part Number | Discharge<br>Setting PSIG | LPG    | NH3    | Connection<br>M.NPTF | Qty.    | Part Number | Connection<br>M.NPT   | Pipe-away<br>Adapter** | SCFM (air) @ 120% of Set<br>Pressure * |                 |            |  |
| 8532AG      |                           | Yes No | Yes    | Na                   | No. No. |             | 2                     | 3135MG                 |                                        | 3135-10         | 5,549 (1)  |  |
| 8533AG      | 250                       |        |        | ies                  | ies     | ies         | 162                   |                        |                                        | 3               | 313500     |  |
| AA8532MA250 | 200                       | No     | No     |                      | 0"      | 2           | A A 2425MA 250        | 11/"                   |                                        | 6,341 (1)       |            |  |
| AA8533MA250 |                           |        |        |                      |         | 2"          | 3                     | AA3135MA250            | 1¼"                                    | 4 4 9 4 9 5 4 9 | 12,682 (2) |  |
| AA8532MA265 | 265                       |        |        | No Yes               |         | 2           | A 4 2 4 2 5 M 4 2 6 5 | 1                      | AA3135-10                              | 6,615 (1)       |            |  |
| AA8533MA265 | 265                       |        |        |                      | 3       | AA3135MA265 |                       |                        | 13,230 (2)                             |                 |            |  |

\* Flow rating based on number of relief valves indicated in parentheses (). Flow rates shown are for bare relief valves. Adapters and pipe-always will reduce flow rates as discussed in forwarding information in L-500 catalog. \*\* 2" F. NPT outlet connection





# Multiport™ Pressure Relief Valve Manifold Assemblies for Large Storage Containers A8560, A8570 and AA8570 Series

# Application

Designed especially for use as a primary relief device on large stationary pressurized storage containers with flanged openings. These manifolds incorporate an additional relief valve, not included in the flow rating, allowing for servicing or replacement of any one of the relief valves without evacuating the container. The handwheel on the manifold selectively closes off the entrance port to the relief valve being removed while the remaining relief valves provide protection for the container and its contents. All manifold flow ratings are based on flow through the relief valves after one has been removed for service or replacement.

### **Features**

- Allows for relief valve removal and replacement on a periodic basis without shutting down and evacuating the container.
- "Pop-action" design of relief valves insures maximum protection with only minimal product loss at moderately excessive pressures.
- A rubber plug with chain is provided to protect manifold outlet threads where the relief valve has been removed.
- May be mounted directly to a welding neck flange or manhole cover plate. Requires no inlet piping.
- Relief valves designed to automatically reseat firmly after discharge.
- · Resilient relief valve seat disc provides "bubble-tight" seal.
- Relief valves are ASME rated for use with LP-Gas and anhydrous ammonia.

### **Materials**

| Body            | Ductile Iron    |
|-----------------|-----------------|
| Resilient Parts |                 |
| Clapper Disc    | Stainless Steel |
| Bleeder Valve   | Stainless Steel |



### **Bolt Stud and Nut Assemblies**

| Part<br>Number | Consists of            | For Use With:           | For Connection To:                                            | Number<br>Required |
|----------------|------------------------|-------------------------|---------------------------------------------------------------|--------------------|
| 7560-55        | 1-Bolt Stud<br>and Nut | All RegO<br>Multiports™ | Modified 3" - 300#<br>and 4"-ANSI 300#<br>Welding Neck Flange | 8                  |
| 7560-56        | 1                      |                         | Manhold Cover Plate                                           |                    |

### **Relief Valve Materials**

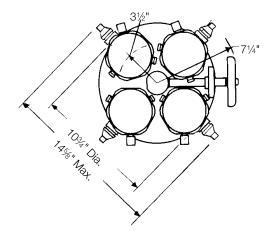
| Description  | A8563, A8564, A8573, A8574                 |
|--------------|--------------------------------------------|
| Body         | Upper Cold Rolled Steel Lower Ductile Iron |
| Liner        | Stainless Steel                            |
| Spring Guide | Stainless Steel                            |
| Spring       | Coated Steel                               |
| Seat Disc    | Resilient Synthetic Rubber                 |

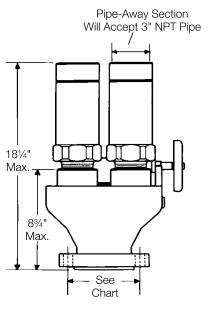
\*A special coating is applied to the inlet threads to minimize possibility of electrolytic action





A8560 A8570





# Typical RegO Multiport™ Pressure Relief Valve Manifold

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RegO Pressure Relief Valve "Pop-action" insures maximum protection with only minimum fluid loss at moderately excessive pressures.

### Weep Hole Deflector

Port design of deflector prevents any ignited fluid ejected from the weep hole, while the relief valve is functioning, from impinging on the storage container or adjacent piping and equipment.

> **Resilient Seat Disc** Assures positive shut-off.

### Manifold Seat Ring

Has integral teflon seat ring for positive shutoff of valve port by clapper disc.

Instruction Plate For relief valve replacement.

Plug Assembly

Protects manifold outlet threads and keeps foreign material out of manifold when relief valve is removed for retest.

## **Flange Dimensions**

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| Manifold<br>Series | Flange Size                          | Flange Drilling                                                                                                          | Port<br>Diameter | Flange<br>Gasket |
|--------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|------------------|
| A8560              | Modified 3"<br>300#<br>(4" Port Dia) | (8) <sup>7</sup> ⁄ <sub>8</sub> " Bolt Holes on a<br>6 <sup>5</sup> ⁄ <sub>8</sub> " Bolt Circle Diameter<br>Flat Faced. | 4"               | 3"<br>7564-48    |
| A8570<br>AA8570    | 4" ANSI<br>300#                      | <ul> <li>(8) %" Bolt Holes on a</li> <li>7%" Bolt Circle Diameter</li> <li>1/16" Raised Faced.</li> </ul>                | 4"               | 4"<br>7565-48    |

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### Safety Groove

Excessive stress on vent piping attached to relief valve will break valve body at this point, leaving valve fully operative.

### Handwheel

Large, heavy duty handwheel has raised port numbers for selective positioning of clapper disc. Raised "arrow" below handwheel indicates exact position of clapper disc at all times.

### Clapper Disc

Shown in position to remove relief valve. Normally, clapper disc is positioned between any two relief valves.

### Bleeder Valve

Shown in "closed" position to bleed off pressure trapped between relief valve and clapper disc prior to removal of relief valve.

### Ductile Iron Body

Rugged. Has corrosion resistant lacquered finish.

### Flanged Tank Connection

Available with either a modified ANSI 3" (4" port opening) or a 4" ANSI 300# flanged connection. Mates respectively with modified ANSI 3" 300 lb. flat face steel flange and ANSI 4" 300 lb. 1/16" raised face steel flange.

### **Spacious Manifold Port**

Passages large unobstructed throat ensures minimum capacity loss. Manifold is bolted directly to storage container opening, eliminating any restrictions.

#### Gasket

Johns-Manville Flexitallic flange gasket furnished with each manifold assembly.

# **Ordering Information**

|             |                           | Appli    | cation  |                      | Relief Valve |             |                      |                      | Flow Capacity SCFM/Air** At |             |      |            |  |            |  |
|-------------|---------------------------|----------|---------|----------------------|--------------|-------------|----------------------|----------------------|-----------------------------|-------------|------|------------|--|------------|--|
|             | Start To                  |          |         | Container            |              |             | Inlet                | Accessories          | 120% of Set Pressure        |             |      |            |  |            |  |
| Part Number | Discharge<br>Setting PSIG | LP-Gas   | NH3     | Flange<br>Connection | Quantity     | Part Number | Connection<br>M. NPT | Pipeaway<br>Adapters | UL Rating                   | ASME Rating |      |            |  |            |  |
| A8563G      |                           |          | /oo Yoo |                      |              |             |                      |                      | 3"-300#*                    | 3           |      |            |  | 18,500 (2) |  |
| A8564G      |                           |          |         | 3 -300#              | 4            | A3149MG     |                      |                      | 27,750 (3)                  | Not         |      |            |  |            |  |
| A8573G      |                           |          |         | 4"-300#              | 3            |             |                      |                      | 18,500 (2)                  | Applicable  |      |            |  |            |  |
| A8574G      | 250                       | Yes      |         | Voo                  | Vaa          | Yes         | 4 -300#              | 4                    |                             | 21/2"       | **** | 27,750 (3) |  |            |  |
| A8563AG     | 250                       | 3"-300#* | les     | 2" 200#*             | 3            | A3149G      | 2/2                  |                      |                             | 18,300 (2)  |      |            |  |            |  |
| A8564AG     |                           |          |         | 3 -300#              | 4            |             |                      |                      | Not                         | 27,400 (3)  |      |            |  |            |  |
| A8573AG     |                           |          | 4"-300# | 3                    | A3149G       |             |                      | Applicable           | 18,300 (2)                  |             |      |            |  |            |  |
| A8574AG     |                           |          |         | 4 -300#              | 4            | ]           |                      |                      |                             | 27,400 (3)  |      |            |  |            |  |

\* For use with modified 300# ANSI flange with 4" port.

\*\* Flow rating based on number of relief valves indicated in parentheses () Flow rates shown are for bare relief valves. Adapters and pipeaways will reduce flow rates as discussed in the Foreword section. \*\*\* 2" F. NPT outlet connection.

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\*\*\*\* Outlet 31/2-8N (F) thread, will accept 3" M. NPT pipe thread.



