## COMBINATION UNITS INDEX

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</tr>
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</tr>
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</tr>
<tr>
<td>Safety Guide</td>
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</tr>
</tbody>
</table>
Pneumatic Division
Richland, Michigan 49083
269-629-5000

![WARNING]
To avoid unpredictable system behavior that can cause personal injury and property damage:
• Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
• Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
• Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
• Medium must be moisture-free if ambient temperature is below freezing.
• Service according to procedures listed in these instructions.
• Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
• After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
• Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

Safety Guide
For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at www.parker.com/safety

![WARNING]
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.

Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only. Compliance with the rated pressure and temperature is necessary.
Maximum Operating (Inlet) Pressure:
- Mini Regulator (Plastic Body) 827 kPa 120 PSIG 8.32 bar
- Economy Regulator (Metal Body) 1720 kPa 250 PSIG 17.2 bar

Ambient Temperature Range: 0°C to 52°C (32°F to 125°F)

Symbol
![Economy Regulator]

Installation
1. This unit should be installed with reasonable accessibility for service whenever possible - repair service kits are available. Keep pipe and tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compounds should be used sparingly and applied only to the male pipe - never into the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
2. Install unit so that air flow is in the direction of arrow. Installation must be upstream of and close to devices it is to service (valve, cylinder, tool etc.) Mounting of Regulators may be in any position.
3. Gauge ports are located on both sides of the regulator body for your convenience. It is necessary to install a gauge or pipe plug into each port during installation.
4. To protect Regulator units against rust, pipe scale, and other foreign matter, install a filter on the upstream (high pressure) side as close to the regulator as possible.

Caution: For proper assembly of units having plastic bodies, fittings must be installed hand-tight and then tightened by wrench 1/2 turn. To prevent leakage past threads, apply thread sealant to fitting. Prestolok fittings are recommended. Use of hard pipe is not recommended.
EXCESSIVE TURNING OF FITTINGS BY WRENCH MAY RESULT IN PERMANENT DAMAGE AND RENDER THE REGULATOR INOPERABLE.

Operation of Regulator
1. Before turning on air supply, turn adjusting handle counterclockwise until compression is released from control spring. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting handle clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment to desired secondary pressure can be made only with primary pressure applied to the regulator.
2. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).

Service
Caution: SHUT OFF AIR SUPPLY and exhaust the primary and secondary pressure before disassembling unit. (Units may be serviced without removing them from the air line.)

Servicing Regulator:
Note: See Figure 1 to aid with this procedure.
1. Unlock the adjusting knob by pulling upward (with the unit in an upright position.) Then turn adjusting knob counterclockwise until compression of the control spring has been removed.
2. Remove the bonnet from body. Then remove o-ring (3), piston, lip seal (5), and control spring (8) to service the bonnet subassembly. Unscrew seat (4) to service the poppet (13), return spring (1), and/or poppet seal (2), o-rings (16 & 18), and washer (17).
3. Clean old grease from unit and inspect seals for sign of wear (nicks, cuts, and scratches). Repair kits are available which contain the parts which are typically replaced.

![WARNING]
FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.
This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.
EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.
4. Apply a light film of grease to all seals and sliding surfaces using the grease packet supplied with repair kit.

**Note:** Refer to Figure 1 to determine the correct position and orientation of the various parts during assembly.

5. Gently and firmly press vent seal into piston using a blunt instrument.

6. Install lip seal onto piston with the lips of the seal facing away from the support flange. Then insert control spring and piston assembly into bonnet.

7. Place balancing o-ring (18) and washer (17) into body's bore. Then insert poppet return spring and poppet assembly, followed by seat o-ring (16) and seat.

8. Tighten seat from 0.6 to 0.8 Nm (5 to 7 in-lbs). Tighten bonnet onto body from 5.6 to 7.3 Nm (50 to 65 in-lbs) of torque.

9. Make sure that the control spring is still uncompressed before turning on the air supply. Turn on air supply, then slowly adjust the knob clockwise to increase downstream pressure until the desired pressure has been reached.

10. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).

11. When the desired secondary pressure setting has been reached, push the adjusting knob down to lock it.

12. Check for leaks. If leaks occur, shut off the air supply, exhaust system air pressure, and make necessary adjustments to eliminate leakage.

### Parts Identification List

<table>
<thead>
<tr>
<th>Item#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Poppet Return Spring</td>
</tr>
<tr>
<td>2</td>
<td>O-ring - body to bonnet</td>
</tr>
<tr>
<td>3</td>
<td>Seat</td>
</tr>
<tr>
<td>4</td>
<td>Lip Seal - piston to bonnet</td>
</tr>
<tr>
<td>5</td>
<td>Piston (relieving shown)</td>
</tr>
<tr>
<td>6</td>
<td>Control Spring</td>
</tr>
<tr>
<td>7</td>
<td>Knob</td>
</tr>
<tr>
<td>8</td>
<td>Hex Nut</td>
</tr>
<tr>
<td>9</td>
<td>Adjusting Screw</td>
</tr>
<tr>
<td>10</td>
<td>Bonnet Assembly</td>
</tr>
<tr>
<td>11</td>
<td>Poppet (Mini Regulator) and Poppet Assembly (Economy Regulator)</td>
</tr>
<tr>
<td>12</td>
<td>Body</td>
</tr>
<tr>
<td>13</td>
<td>Vent Seal - poppet assembly to piston (relieving units) (Economy Regulator)</td>
</tr>
<tr>
<td>14</td>
<td>O-ring - seat to body (Economy Regulator)</td>
</tr>
</tbody>
</table>

**Service Kits Available**

The following service kits contain the appropriate seals and parts necessary for ordinary field service.

<table>
<thead>
<tr>
<th>Description</th>
<th>Economy Regulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonnet Assembly</td>
<td>L01369</td>
</tr>
<tr>
<td>Mounting Bracket Kit* (plastic ring)</td>
<td>PS417B</td>
</tr>
<tr>
<td>Mounting Bracket Kit* (aluminum ring)</td>
<td>PS466</td>
</tr>
<tr>
<td>Panel Mount Nuts* Metal</td>
<td>P78652 PS01531</td>
</tr>
<tr>
<td>Piston Kit - Non-Relieving</td>
<td>PS422</td>
</tr>
<tr>
<td>Piston Kit - Relieving</td>
<td>PS423</td>
</tr>
<tr>
<td>Poppet Kit - Unbalanced</td>
<td>PS454</td>
</tr>
<tr>
<td>Tamperproof Kit</td>
<td>PS01265</td>
</tr>
</tbody>
</table>

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.*

**FIGURE 1: Economy Regulator**

(Balanced, Relieving Unit Shown)
Pneumatic Division
Richland, Michigan 49083
269-629-5000

WARNING
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• Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
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• Medium must be moisture-free if ambient temperature is below freezing.
• Service according to procedures listed in these instructions.
• Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
• After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
• Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

CAUTION
Polycarbonate bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and diester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY!
DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

WARNING
To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature ratings. Polycarbonate bowls have a 150 PSIG pressure rating and a maximum temperature rating of 125°F.

Safety Guide
For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.

Maximum Operating (Inlet) Pressure: kPa  PSIG  bar
Miniature Filter / Regulator (with Plastic Bowl) 1030  150  10.3
Miniature Filter / Regulator (with Metal Bowl) 1720  250  17.2
Miniature Regulator (Metal Body) 2000  300  20.0

Ambient Temperature Range: 0°C to 52°C (32°F to 125°F)

Symbols

Installation
1. This unit should be installed with reasonable accessibility for service whenever possible - repair service kits are available. Keep pipe and tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compounds should be used sparingly and applied only to the male pipe - never into the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
2. Install unit so that air flow is in the direction of arrow. Installation must be upstream of and close to devices it is to service (valve, cylinder, tool etc.). Mounting of regulators may be in any position; mounting of filter/regulators must be vertical as shown in figure.
3. Gauge ports are located on both sides of the regulator body for your convenience. It is necessary to install a gauge or pipe plug into each port during installation.
4. To protect regulator units against rust, pipe scale, and other foreign matter, install a filter on the upstream (high pressure) side as close to the regulator as possible.

Operation of Regulator
1. Before turning on air supply, turn adjusting handle counterclockwise until compression is released from control spring. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting handle clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment to desired secondary pressure can be made only with primary pressure applied to the regulator.
2. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).

Operation of Filter / Regulator
1. Both free moisture and solids are removed automatically by the Filter / Regulator.
2. Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the element holder. Automatic drain models (pulse drain) will collect and dump liquids automatically. They are actuated when a pressure drop occurs within the filter.
3. The filter element should be removed and replaced when the pressure differential across the filter is excessive.

Service
Caution: SHUT OFF AIR SUPPLY and exhaust the primary and secondary pressure before disassembling unit. (Units may be serviced without removing them from the air line.)

WARNING
FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HERIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE. This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

Installation & Service Instructions
1R602
Miniature Filter / Regulator,
Miniature Regulators
1/8” and 1/4” Ports
ISSUED: July, 2008
Supersedes: March, 2008
Doc.# 1R602, EN# 080525, Rev. 7
Servicing Regulator:

**Note:** See Figure 1, 2, & 3 to aid with this procedure.

1. Unlock the adjusting knob by pulling upward (with the unit in an upright position.) Then turn adjusting knob counterclockwise until compression of the control spring has been removed.
2. Remove the bonnet from body. Then remove o-ring (7), piston, lip seal (9), and control spring to service the bonnet subassembly. Unscrew seat (8) to service the poppet (17), return spring (5), and for poppet seal (6).

**Note:** On filter / regulator units, the poppet assembly & poppet return spring may be accessed by removing filter element.

3. Clean old grease from unit and inspect seals for sign of wear (nicks, cuts, and scratches). Repair kits are available which contain the parts which are typically replaced.
4. Apply a light film of grease to all seals and sliding surfaces using the grease packet supplied with repair kit.

**Note:** Refer to Figures to determine the correct position and orientation of the various parts during assembly.

5. Install lip seal onto piston with the lips of the seal facing away from the support flange. Then insert control spring and piston assembly into bonnet.
6. Place poppet return spring and poppet assembly into bore, followed by poppet seal and seat.
7. Tighten seat to body from 0.9 to 1.1 Nm (8 to 10 in-lbs) of torque. Tighten bonnet onto body from 5.6 to 7.3 Nm (50 to 65 in-lbs) of torque.
8. Make sure that the control spring is still uncompensated before turning on the air supply. Turn on air supply, then slowly adjust the knob clockwise to increase downstream pressure until the desired pressure has been reached.
9. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG), then adjusting upward to 410 kPa (60 PSIG).
10. When the desired secondary pressure setting has been reached, push the adjusting knob down to lock it.
11. Check for leaks. If leaks occur, shut off the air supply, exhaust system air pressure, and make necessary adjustments to eliminate leakage.

**Service Kits Available**

The following service kits contain the appropriate seals and parts necessary for ordinary field service.

<table>
<thead>
<tr>
<th>Description</th>
<th>Miniature Filter / Regulator</th>
<th>Miniature Regulator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adsorber</td>
<td>PS452</td>
<td>PS452</td>
</tr>
<tr>
<td>5 Micron Element Kit</td>
<td>PS403</td>
<td>N/A</td>
</tr>
<tr>
<td>40 Micron Element Kit</td>
<td>PS401</td>
<td>N/A</td>
</tr>
<tr>
<td>Metal Bowl w/Manuual Drain</td>
<td>PS447B</td>
<td>N/A</td>
</tr>
<tr>
<td>Metal Bowl w/Automatic Drain</td>
<td>PS451B</td>
<td>N/A</td>
</tr>
<tr>
<td>Mounting Bracket Kit* (plastic ring)</td>
<td>PS417B</td>
<td>PS417B</td>
</tr>
<tr>
<td>Mounting Bracket Kit* (aluminum ring)</td>
<td>PS466</td>
<td>PS466</td>
</tr>
<tr>
<td>Panel Mount Nut - Metal*</td>
<td>P01531</td>
<td>P01531</td>
</tr>
<tr>
<td>Piston &amp; Poppet Kit - Unbal. Rel.</td>
<td>PS426</td>
<td>PS426</td>
</tr>
<tr>
<td>Piston &amp; Poppet Kit - Unbal. Non-Rel.</td>
<td>PS428</td>
<td>PS428</td>
</tr>
<tr>
<td>Polycarbonate Bowl w/Manual Drain</td>
<td>PS404</td>
<td>N/A</td>
</tr>
<tr>
<td>Polycarbonate Bowl w/Automatic Drain</td>
<td>PS408B</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Springs:**
- 1-30 PSIG Range: P01175, P01175
- 1-60 PSIG Range: P01174, P01174
- 1-15 PSIG Range: P01176, P01176

**Twist Drain Knob:** P05117

*Tighten panel mount nut 2.8 to 3.4 Nm (25 to 30 in-lbs) of torque.

Servicing Filter Element:

**Note:** See Figure 1 to aid with this procedure.

1. Unscrew threaded bowl and element holder. Then remove filter element, deflector, and gaskets.
2. Clean all internal parts, bowl, and body before re-assembling unit. See Polycarbonate bowl cleaning section.
3. Install deflector, filter element, and gaskets.
4. Attach element holder. Torque 0.9 to 1.4 Nm (8 to 12 in-lbs).
5. To assist with retaining bowl's o-ring while installing bowl, lubricate the o-ring (with a mineral based oil or grease). Then place it on the bowl.
6. Screw bowl into body until it is stopped by body; then back off bowl 1/8 turn.
7. Apply pressure to the system and check for leaks. If leaks occur, shut off the air supply, de-pressurize the system and make necessary adjustments to eliminate leakage.

If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.

**Parts Identification List**

<table>
<thead>
<tr>
<th>Item#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bowl (Miniature Filter Regulator)</td>
</tr>
<tr>
<td>2</td>
<td>Filter Element (Miniature Filter Regulator)</td>
</tr>
<tr>
<td>3</td>
<td>Deflector (Miniature Filter Regulator)</td>
</tr>
<tr>
<td>4</td>
<td>O-ring (Miniature Filter Regulator) - bowl to body</td>
</tr>
<tr>
<td>5</td>
<td>Poppet Return Spring</td>
</tr>
<tr>
<td>6</td>
<td>Poppet Seal</td>
</tr>
<tr>
<td>7</td>
<td>O-ring - body to bonnet</td>
</tr>
<tr>
<td>8</td>
<td>Seat</td>
</tr>
<tr>
<td>9</td>
<td>Lip Seal - piston to bonnet</td>
</tr>
<tr>
<td>10</td>
<td>O-ring - piston to poppet (Miniature Regulator &amp; Filter / Regulator relieving units)</td>
</tr>
<tr>
<td>11</td>
<td>Piston (relieving shown)</td>
</tr>
<tr>
<td>12</td>
<td>Control Spring</td>
</tr>
<tr>
<td>13</td>
<td>Knob</td>
</tr>
<tr>
<td>14</td>
<td>Hex Nut</td>
</tr>
<tr>
<td>15</td>
<td>Adjusting Screw</td>
</tr>
<tr>
<td>16</td>
<td>Bonnet</td>
</tr>
<tr>
<td>17</td>
<td>Poppet (Miniature Regulator &amp; Filter / Regulator)</td>
</tr>
<tr>
<td>18</td>
<td>Body</td>
</tr>
<tr>
<td>19</td>
<td>Gasket (Miniature Filter Regulator) - deflector to body</td>
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<tr>
<td>20</td>
<td>Gasket (Miniature Filter Regulator) - element holder to filter element</td>
</tr>
<tr>
<td>21</td>
<td>Element Holder (Miniature Filter Regulator)</td>
</tr>
<tr>
<td>22</td>
<td>O-ring (14E) - body to drain</td>
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<tr>
<td>23</td>
<td>Twist Drain (Miniature Filter Regulator)</td>
</tr>
<tr>
<td>24</td>
<td>Twist Drain Knob</td>
</tr>
</tbody>
</table>

**FIGURE 1:** Miniature Filter / Regulator - Un-balanced, Relieving

**FIGURE 2:** Miniature Regulator - Un-balanced, Relieving Unit Shown

**FIGURE 3:** Detail of Poppet Seal
**AVERTISSEMENT**

Afin d’éviter un fonctionnement imprévu du système pouvant occasionner des blessures à des personnes et des dommages matériels :

- Débrancher l’alimentation électrique (si nécessaire) avant toute installation, entretien ou conversion.
- Débrancher l’alimentation en air et dépressuriser toutes les canalisations d’air connectées à cet appareil avant installation, entretien ou conversion.
- Utiliser l’appareil conformément aux normes de pression, température, et autres conditions spécifiées par le fabricant dans ces instructions.
- Le matériel doit être exempt d’humidité si la température descend en dessous de 0°C.
- L’entretien doit se faire conformément aux procédures décrites ici.
- L’installation, l’entretien, et la conversion de ces appareils doivent être effectués par des personnels qualifiés, au fait des techniques pneumatiques.
- Après installation, entretien, ou conversion, les alimentations en air et en électricité (si nécessaire) seront connectées et l’appareil testé pour vérifier son fonctionnement correct et l’absence de fuites. Si l’appareil présente une fuite audible ou ne fonctionne pas correctement, ne pas l’utiliser.
- Les inscriptions concernant les avertissements et spécifications sur l’appareil ne devront pas être recouvertes de peinture, etc. Si le masquage est impossible, contactez votre représentant local pour des étiquettes de remplacement.

**SECURITE – Cuves transparentes**

**ATTENTION:**

Les bols en polycarbonates, étant durs et transparents, sont idéaux pour l’utilisation dans les filtres et lubrificateurs. Ils conviennent aux environnements industriels normaux, mais ne devront pas être placés dans des endroits où ils pourraient être soumis à une exposition à la lumière directe du soleil, aux chocs, ou aux températures en-dehors de la plage normale d’utilisation. Ce plastique est, comme tout autre, susceptible d’être endommagé par l’action de certains produits chimiques. Les bols en polycarbonate ne doivent pas être exposés aux hydrocarbures chlorés, cétones, éthers, et certains alcools. Ils ne doivent pas être utilisés dans des systèmes pneumatiques dont les compresseurs sont lubrifiés par des fluides résistants au feu, tels que les esters et diesters de phosphate.

Les bols métalliques sont recommandés quand les conditions ambiantes et/ou celles du médium sont incompatibles avec les bols en polycarbonates. Les bols métalliques sont résistants à la plupart de ces solvants mais ne doivent pas être utilisés en milieu fortement acide ou basique, ou dans une atmosphère saline. Si de telles conditions existent, contactez le fabricant pour des recommandations spécifiques.

NETTOYEZ LES BOLS EN POLYCARBONATE UNIQUEMENT À L’EAU ET AU SAUTON DOUX ! NE PAS utiliser d’agents nettoyants tels que l’acétone, le benzène, le tétrachlorure de carbone, l’essence, le brome, etc., qui endommageraient ce plastique.

**AVERTISSEMENT**

Une rupture de l’appareil peut occasionner des blessures graves. Ne pas utiliser ce régulateur pour du gaz en bouteille.

Ne pas dépasser la norme de pression primaire maximum.

**Guide de sécurité**

Pour obtenir de plus amples informations sur les directives à appliquer recommandées, prière de vous reporter à la section Guide de sécurité des catalogues de la Pneumatic Division ou de télécharger le Guide de sécurité de la Pneumatic Division sur le site: www.parker.com/safety

**Introduction**

Suivez ces instructions pendant l’installation, l’utilisation ou l’entretien du produit.

**Limites d’utilisation**

Ces produits sont construits pour utilisation uniquement dans les systèmes d’air comprimé pour service général.

<table>
<thead>
<tr>
<th>Pression d’admission maximale de fonctionnement (kPa)</th>
<th>psi</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtre-régulateur miniature (avec cuve en plastique)</td>
<td>1030</td>
<td>150</td>
</tr>
<tr>
<td>Filtre-régulateur miniature (avec cuve métallique)</td>
<td>1720</td>
<td>250</td>
</tr>
<tr>
<td>Régulateur miniature (corps métallique)</td>
<td>2000</td>
<td>300</td>
</tr>
</tbody>
</table>

| Plage de température ambiante | °C à 52 °C (32 °F à 125 °F) |

**Symboles**

**Installation**

1. Il faut installer cet appareil dans un endroit raisonnablement accessible pour faciliter l’entretien. Un kit de réparation est offert. Les tuyaux et tubes doivent être aussi courts que possible et ils doivent être propres et sans salé ni copeaux à l’intérieur. Il faut utiliser modérément la pâte à joint et l’appliquer uniquement sur le tuyau, jamais dans l’orifice. Il ne faut pas utiliser de ruban de PTFE pour assurer l’étanchéité des connexions de tuyaux. Les pièces ont tendance à se fracturer et se loger à l’intérieur de l’appareil, ce qui peut causer un mauvais fonctionnement.

2. Installer l’appareil pour que l’air circule dans la direction de la flèche. L’installation doit en amont et aussi proche que possible de l’appareil qu’il faut protéger (vanne, vérin, outil, etc.). Le régulateur peut être monté dans n’importe quelle position. Le filtre-régulateur doit être monté verticalement, comme montré sur l’illustration.

3. Pour être plus pratique, un orifice de manomètre se trouve de chaque côté du corps du régulateur. Pendant l’installation, il est nécessaire d’installer un manomètre ou un bouchon de tuyau dans chaque orifice.

4. Pour protéger le régulateur de la rouille, la calamine et autres matières étrangères, installer un filtre en amont du régulateur, aussi proche que possible de celui-ci.

**Utilisation du régulateur**

1. Avant de mettre le système sous pression, tourner la poignée de réglage dans le sens inverse des aiguilles d’une montre jusqu’à l’élimination de toute la compression du ressort de commande de pression. Mettre le système sous pression et tourner la poignée dans le sens des aiguilles d’une montre pour régler le régulateur à la pression secondaire désirée. Ceci permet à la pression de monter lentement, évitant le fonctionnement inattendu de la vanne, des vêrins, des outils, etc. montés sur la conduite. Il n’est possible de faire le réglage de la pression secondaire que si le régulateur est soumis à la pression primaire.

2. Pour régler la pression du système, il faut toujours faire le réglage à partir d’une pression plus basse que la valeur désirée. Par exemple, pour abaisser la pression secondaire de 5,5 à 4,1 bar (550 à 410 kPa ; 80 à 60 psi), il est préférable de faire tomber la pression secondaire à 3,5 bar (350 kPa ; 50 psi) et de la régler, en maintenant à 4,1 bar (410 kPa ; 60 psi).

**Utilisation du filtre et régulateur**

1. L’humidité libre et les solides sont éliminés automatiquement par le filtre et le régulateur.

2. Il faut purger régulièrement les filtres à purge manuelle avant que la condensation et l’huile condensée atteignent le bas du support d’élément. Les modèles à purge automatique (purge à impulsions) captent et évacuent automatiquement les liquides. Ils sont actionnés par une chute de pression dans le filtre.

**AVERTISSEMENT**

LA DEFAILLANCE, LE CHOIX ERRONE OU L’USAGE NON CONFORME DES PRODUITS ET/OU SYSTEMES ICI DECROITS, PRODUITS Y AFFERANT, PEUVENT ENTRAINER LA MORT, DES BLESSURES AUX PERSONNES ET DES DOMMAGES MATERIELS.

Ce document et autres informations de « The Company », ses filiales et distributeurs autorisés offre des options complémentaires d’utilisation du produit et/ou système pour le régulateur utilisant l’expertise technique requise. Il est important que vous analysiez tous les aspects de l’usage prévu, y compris les conséquences de toute défaillance, et que vous passiez en revue les informations concernant les produits et systèmes dans le catalogue actuel des produits. En raison de la diversité des conditions de fonctionnement et d’utilisation de ces produits ou systèmes, l’utilisateur, et lui seul, selon ses propres analyses et tests, porte la responsabilité du choix final des produits et systèmes. Il est aussi de sa responsabilité pleine et entière de s’assurer que les produits soient utilisés conformément aux normes de sécurité et avertissements d’usage.

Les produits décrits ici, y compris, mais non exclusivement, les caractéristiques des produits, spécifications, aspects, disponibilité et prix, sont susceptibles de modification à tout moment et sans préavis par « The Company » et ses filiales.

DES EXEMPLAIRES SUPPLEMENTAIRES DES INSTRUCTIONS SONT DISPONIBLES POUR ACCOMPAGNER LES APPAREILS/MANUELS D’ENTRETIEN CORRESPONDANT À CES PRODUITS. CONTACTEZ VOTRE REPRÉSENTANT LOCAL.
Filtre-régulateur miniature, régulateurs miniatures avec des orifices de 1/8 in et 1/4 in

3. Il faut remplacer l'élément filtrant quand la différence de pression dans le filtre est excessive.

Entretien

\[\text{ATTENTION} – \text{COUPER L’ALIMENTATION D’AIR et évacuer la pression primaire et secondaire avant de démonter l'appareil. Il est possible de réparer ces appareils sans les déposer de la conduite d’air.}\]

Intervention sur le régulateur

Remarque : Consulter les figures 1, 2 et 3 pour aider avec cette procédure.

1. Lever le bouton de réglage pour le débloquer (quand l’appareil est en position verticale). Tourner ensuite le bouton de réglage dans le sens inverse des aiguilles d’une montre jusqu’à l’élimination de toute la compression du ressort de commande.

2. Déposer le chapeau du corps. Déposer ensuite le joint torique (7), le piston, le joint à lèvre (9) et le ressort de commande pour réparer le sous-ensemble du clapet. Dévisser le siège (8) pour atteindre le clapet (17), le ressort de rappel (5) et le siège du clapet (6).

Remarque : Sur les filtres-régulateurs, il est possible de déposer l’élément filtrant pour obtenir accès au clapet et au ressort de rappel du clapet.

3. Nettoyer l’ancienne graisse et vérifier s’il y a des signes d’usure sur les joints (entailles, coupures ou rayures). Des kits de réparation contenant les pièces typiquement remplacées sont offerts.

4. Appliquer une pellicule de graisse sur tous les joints et surfaces coulissantes, en utilisant le paquet de graisse fourni avec le kit de réparation.

Remarque : Pendant le remontage, consulter les illustrations pour déterminer la position et l’orientation des diverses pièces.

5. Installez le joint à lèvre sur le piston, les lèvres du joint à l’opposé de la bride de support. Insérer ensuite le ressort de commande et le piston dans le clapet.

6. Mettre le ressort de rappel du clapet et le clapet dans l’alésage, puis le joint du clapet et le siège.

7. Serrer le siège dans le corps à un couple de 0,9 à 1,1 Nm (8 à 10 in-lb). Serrer le clapet sur le corps à un couple de 5,6 à 7,3 Nm (50 à 65 in-lb).

8. Avant de mettre le système sous pression, vérifier que le ressort de commande n’est pas comprimé. Mettre le système sous pression et tourner le bouton dans le sens des aiguilles d’une montre pour faire monter la pression en aval jusqu’à la pression désirée.

9. Pour réguler la pression du système, il faut toujours faire le réglage à partir d’une pression plus basse que la valeur désirée. Par exemple, pour abaisser la pression secondaire de 5,5 à 4,1 bar (550 à 410 kPa ; 80 à 60 psi), il est préférable de faire tomber la pression secondaire à 3,5 bar (350 kPa ; 50 psi) et de la régler, en montant à 4,1 bar (410 kPa ; 60 psi).

10. Quand la pression secondaire désirée est atteinte, enfoncer le bouton de réglage pour le verrouiller.

11. Vérifier qu’il n’y a pas de fuites. S’il y a des fuites, couper l’alimentation d’air, faire tomber la pression du système et faire les réglages nécessaires pour éliminer les fuites.

Intervention sur l’élément filtrant

Remarque : Consulter la figure 1 pour aider avec cette procédure.

1. Dévisser la cuve filetée et le support d’élément. Déposer ensuite l’élément filtrant, le déflecteur et les joints.

2. Nettoyer toutes les pièces internes, la cuve et le corps avant de remonter l’appareil. Consulter la section de nettoyage de la cuve en polycarbonate.

3. Installer le déflecteur, l’élément filtrant et les joints.

4. Appliquer une pellicule de graisse sur tous les joints et surfaces coulissantes, en utilisant le paquet de graisse fourni avec le kit de réparation.

Remarque : Les kit de réparation suivants contiennent les joints appropriés et les pièces nécessaires pour les réparations ordinaires sur place.

**Kits d’intervention offerts**

Les kits de réparation suivants contiennent les joints appropriés et les pièces nécessaires pour les réparations ordinaires sur place.

<table>
<thead>
<tr>
<th>N° de référence</th>
<th>Description</th>
<th>Filtre-régulateur miniature</th>
<th>Régulateur miniature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cuve (filtre et régulateur miniature)</td>
<td>PS452</td>
<td>PS452</td>
</tr>
<tr>
<td>2</td>
<td>Élément filtrant (filtre-régulateur miniature)</td>
<td>PS403</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Support (filtre-régulateur miniature)</td>
<td>PS401</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Joint torique (filtre-régulateur miniature), entre la cuve et le corps</td>
<td>PS417B</td>
<td>PS417B</td>
</tr>
<tr>
<td>5</td>
<td>Ressort de rappel du clapet</td>
<td>PS415B</td>
<td>PS415B</td>
</tr>
<tr>
<td>6</td>
<td>Joint du clapet</td>
<td>PS466</td>
<td>PS466</td>
</tr>
<tr>
<td>7</td>
<td>Joint torique, entre le piston et le clapet (dispositif d’évacuation</td>
<td>Ps01531</td>
<td>Ps01531</td>
</tr>
<tr>
<td>8</td>
<td>Piston (avec évacuation montré)</td>
<td>Ps0175</td>
<td>Ps0175</td>
</tr>
<tr>
<td>9</td>
<td>Ressort de commande</td>
<td>Ps0176</td>
<td>Ps0176</td>
</tr>
<tr>
<td>10</td>
<td>Joint torique, entre le piston et le clapet (dispositif d’évacuation</td>
<td>Ps0177</td>
<td>Ps0177</td>
</tr>
<tr>
<td>11</td>
<td>Piston (avec évacuation montré)</td>
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<td>N/A</td>
</tr>
<tr>
<td>12</td>
<td>Chapeau</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>13</td>
<td>Cuve en polycarbonate avec purge manuelle</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>14</td>
<td>Ecrou métallique de montage sur le panneau*</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>15</td>
<td>Kit de piston et clapet, évacuation sans équilibre</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>Kit de piston et clapet, évacuation sans équilibre</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>17</td>
<td>Cuve métallique avec purge manuelle</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>18</td>
<td>Joint torique, entre le défecteur et le corps</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>19</td>
<td>Joint torique, entre le défecteur et le corps</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>20</td>
<td>Joint torique (filtre-régulateur miniature), entre le support d’élément et</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>21</td>
<td>l’élément filtrant</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>22</td>
<td>Joint torique (14E), entre le corps et la purge</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>23</td>
<td>Purge tournant (filtre-régulateur miniature)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>24</td>
<td>Tordre le Bouton d’Egout</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*Serrer l’écrou de montage du panneau à un couple de 2,8 à 3,4 Nm (25 à 30 po/lb).
La Seguridad: Las Tazas Transparentes

**PRECAUCIÓN:**

Las tazas de policarbonato, al ser transparentes y resistentes, son ideales para usar con Filtros y Lubricadores. Sin embargo, no deben usarse con sustancias químicas que puedan dañar las tazas. Las tazas de metal son recomendables para estas condiciones.

**ADVERTENCIA**

La ruptura del producto puede ocasionar lesiones graves.

Para obtener información más completa acerca de los lineamientos recomendados acerca del uso, vea la sección Guía sobre la seguridad en los catálogos de la división neumática o puede bajar la Guía sobre la Seguridad de la División (Pneumatic Division Safety Guide) en www.parker.com/safety

Introducción

Observe las siguientes instrucciones al instalar, operar o dar servicio al producto.

**Límites de aplicación**

Estos productos han sido diseñados para usarse solamente en sistemas de aire comprimido para propósitos generales.

**Máxima presión (de entrada) para funcionamiento kPa PSIG barras**

- Filtro / regulador en miniatura (con tanzo plástico) 1030 150 10,3
- Filtro / regulador en miniatura (con tanzo de metal) 1720 250 17,2
- Regulador en miniatura (cuerpo de metal) 2000 300 20,0

**Rango de temperatura ambiental:** 0°C a 52°C (32°F a 125°F)

**Símbolos**

**Instalación**

1. Siempre que sea posible, al instalar estas unidades se les debe colocar en lugares de fácil acceso, para poder darles servicio. Hay disponibles juegos de servicio para reparación. Se deben usar tuberías o conductos tan cortos como sea posible, manteniendo su interior limpio y sin desechos o astillas. Los compuestos para unir tuberías deben usarse moderadamente y se les debe aplicar a las tuberías macho solamente, nunca a los puertos hembra. No use cinta PTFE para sellar las junturas de tuberías ya que algunas veces pedazos de cinta tienden a separarse y fijarse dentro de las unidades provocando posiblemente mal funcionamiento.

2. Instale las unidades de manera que el flujo de aire ocurra en la dirección de las flechas. La instalación se debe hacer flujo arriba y cerca de los dispositivos que han de servir (válvulas, cilindros, herramientas, etc.). Los reguladores pueden montarse en cualquier posición; los filtros / reguladores deben montarse verticalmente tal y como se muestra en la figura.

3. Para su conveniencia, hay puertos para medidores en ambos lados de los cuerpos de los reguladores. Al hacer la instalación, es necesario colocar un medidor o un tapón de casquillo en cada uno de esos puertos.

**Funcionamiento de los reguladores**

1. Antes de activar el suministro de aire, gire la manija para ajuste en contra de las agujas del reloj hasta liberar la compresión del muelle para control. Luego active el suministro de aire y ajuste el regulador a la presión secundaria deseada girando la manija en sentido de las agujas del reloj. Con esto se permite que la presión se acumule lentamente, evitando todo funcionamiento inesperado de los ésteres y ciertos alcoholes. No se los debe usar en sistemas de aire en donde se deben exponer las tazas de policarbonatos a los hidrocarburos clorinados, las cetonas, los ésteres y ciertos alcoholes. No se los debe usar en sistemas de aire en donde se lubrican los compresores de aire usando fluidos resistentes al fuego tal como los tipos de ester fosforado y di-ester.

Se recomienda el uso de tazas de metal cuando las condiciones ambientales y del medio no son compatibles con las tazas de policarbonato. Las tazas de metal son resistentes a la acción de la mayoría de esos solventes, pero no deben usarse cuando existe la presencia de ácidos o bases fuertes, ni en atmósferas cargadas de sal. Consulte con la fábrica por recomendaciones específicas para cuando existan estas condiciones.

PARA LIMPIAR LAS TAZAS DE POLICARBONATO, UTILICE SOLAMENTE UN JABÓN SUAVE Y AGUA. NO use agentes de limpieza tales como la acetona, el benceno, el tetracloruro de carbono, la gasolina o el tolueno, etc., que pueden dañar el medio no son compatibles con las tazas de policarbonato. Las tazas de metal son ideales para estos casos.

**Guía sobre la seguridad**

**Para obtener información más completa acerca de los lineamientos recomendados acerca del uso, vea la sección Guía sobre la seguridad en los catálogos de la división neumática o puede bajar la Guía sobre la Seguridad de la División (Pneumatic Division Safety Guide) en www.parker.com/safety**

**ADVERTENCIA**

Para evitar un comportamiento impredecible del sistema que pueda ocasionar lesiones personales y daños a la propiedad:

- Antes de instalar, reparar o convertir, desconecte el suministro eléctrico (cuando sea necesario).
- Antes de instalar, reparar o convertir, desconecte el suministro de aire y desprecíse todas las líneas de aire que están conectadas a este producto.
- Haga funcionar dentro de la presión, temperatura y demás condiciones especificadas por el fabricante y que se incluyen en estas instrucciones.
- El medio debe estar libre de humedad si la temperatura ambiente se encuentra por debajo del punto de congelación.
- Repare de acuerdo con los procedimientos que se incluyen en estas instrucciones.
- La instalación, reparación y conversión de estos productos debe ser realizada por personal competente que entienda la manera en que se deben aplicar los productos neumáticos.
- Después de la instalación, reparación y conversión, se debe conectar los suministros eléctricos y de aire (cuando sea necesario), y el producto se debe poner a prueba para determinar que funciona correctamente y no tiene pérdidas. Si se detecta una pérdida audible, o si el producto no funciona correctamente, no lo ponga en funcionamiento.
- Las advertencias y especificaciones que aparecen en el producto no deben estar cubiertas por pintura, etc. Si no resulta posible colocarlo con cinta adhesiva, póngase en contacto con su representante local para obtener etiquetas de repuesto.

**ADVERTENCIA**

• Antes de instalar, reparar o convertir, desconecte el suministro del aire y la corriente eléctrica (cuando sea necesario).
- La instalación, reparación y conversión de estos productos debe ser realizada por personal competente que entienda la manera en que se deben aplicar los productos neumáticos.
- Después de la instalación, reparación y conversión, se debe conectar los suministros eléctricos y de aire (cuando sea necesario), y el producto se debe poner a prueba para determinar que funciona correctamente y no tiene pérdidas. Si se detecta una pérdida audible, o si el producto no funciona correctamente, no lo ponga en funcionamiento.
- Las advertencias y especificaciones que aparecen en el producto no deben estar cubiertas por pintura, etc. Si no resulta posible colocarlo con cinta adhesiva, póngase en contacto con su representante local para obtener etiquetas de repuesto.

**ADVERTENCIA**

La ruptura del producto puede ocasionar lesiones graves.

No conecte el regulador al gas embotellado. No exceda la clasificación de presión primaria máxima.

**El fallo o la selección incorrecta o el uso incorrecto de los productos y/o sistemas aquí descritos u otros artículos relacionados puede resultar en muerte, lesiones personales y daño a la propiedad.**

Este documento y demás información de la compañía, sus subsidiarias y distribuidores autorizados ofrecen opciones de productos y sistemas para mayor investigación por parte de los usuarios que cuentan con conocimientostécnicos. Es importante que analice todos los aspectos de su aplicación, incluyendo las consecuencias de cualquier fallo y que revise la información concerniente al producto o los sistemas que se encuentran en el catálogo actual de productos. Debido a la variedad de condiciones de funcionamiento y aplicaciones para estos productos o sistemas, el usuario, mediante su propio análisis y pruebas, es únicamente responsable por la selección final de los productos y sistemas, y por garantizar que se cumpla con todos los requisitos de funcionamiento, seguridad y advertencia de la aplicación.

Los productos aquí descritos, incluyendo pero sin limitarse, a las características del producto, las especificaciones, los diseños, la disponibilidad y los precios, están sujetos a cambios por parte de la compañía y de sus subsidiarias en cualquier momento sin aviso.

SE PUEDE OBTENER COPIAS ADICIONALES DE ESTAS INSTRUCCIONES PARA INCLUIR CON EL EQUIPO / LOS MANUALES DE MANTENIMIENTO QUE UTILIZAN ESTOS PRODUCTOS. COMUNÍQUESE CON SU REPRESENTANTE LOCAL.
del elemento. Los modelos con drenaje automático (drenaje por pulsos) recolectan y desechan los líquidos automáticamente. Se activan cuando hay una caída de presión dentro del filtro.

3. Se deben quitar y reemplazar los elementos de los filtros cuando la presión diferencial a través de ellos sea excesiva.

**Servicio**

**PRECAUCIÓN:** Antes de desarmar la unidad, DESACTIVE EL SUMINISTRO DE AIRE y elimine la presión principal y secundaria. (Se puede dar servicio a las unidades sin quitarlas de la línea.)

**Cómo dar servicio a los reguladores:**

**Nota:** Para auxiliarse en este procedimiento, vea las figuras 1, 2 y 3.

1. Desenrosque el tazón y el soporte del elemento. Después saque el elemento del obturador, seguido del sello y el asiento del obturador.

2. Quite el bonete del cuerpo. Después quite el aro tórico (7), el pistón, el sello con labios (9) y el muelle para control para dar servicio al bonete. Desensrosque el asiento (8) para dar servicio al obturador (17), el muelle para retorno (5) y/o el sello del obturador (6).

**Nota:** En las unidades de filtros / reguladores, se puede obtener acceso al conjunto de obturador y al muelle para retorno del obturador quitando los elementos de los filtros.

3. Quite la grasa vieja de la unidad y verifique que los sellos no estén desgastados (mellados, cortados o rayados). Se encuentran disponibles juegos para reparación que contienen las piezas de repuesto más comúnmente utilizadas.

4. Coloque una película ligeras de grasa en los sellos y las superficies deslizantes usando el paquete de grasa que se suministra con el juego para reparación.

**Nota:** Vea las figuras para averiguar la posición y orientación correctas de las piezas durante el ensamble.

5. Coloque el sello con labios en el pistón con los labios del sello hacia afuera del borde para soporte. Luego introduzca en el bonete el conjunto de muelle para control y pistón.

6. Coloque en el hueco el conjunto de muelle para retorno del obturador y el obturador, seguido del sello y el asiento del obturador.

7. Aprote el asiento al cuerpo con una torsión de 0,9 a 1,1 Nm (8 a 10 libras pulgada). Aprote el bonete al cuerpo con una torsión de 5,6 a 7,3 Nm (50 a 65 libras pulgada).

8. Antes de activar el suministro de aire asegúrese de que el muelle para control está todavía sin compresión. Active el suministro de aire, luego gire lentamente la perilla en el sentido de las agujas del reloj para aumentar la presión flujo abajo hasta alcanzar la deseada.

9. Para disminuir la graduación de la presión del regulador, comience siempre con una presión menor que la graduación final deseada. Por ejemplo, para reducir la presión secundaria de 550 a 410 kPa (80 a 60 psig) lo mejor es reducir la presión secundaria a 350 kPa (50 psig), y luego aumentarla a 410 kPa (60 psig).

10. Al alcanzar la presión secundaria deseada, presione la perilla para ajuste hacia abajo para fijarla.

11. Verifique que no hay fugas. Si las hay, desactive el suministro de aire, saque la presión de aire del sistema y haga los ajustes necesarios para eliminarlas.

**Cómo dar servicio al elemento del filtro:**

**Nota:** Para auxiliarse en este procedimiento, vea la Figura 1.

1. Desensrosque el tazón y el soporte del elemento. Después saque el elemento del filtro, el desviador y los empaques.

2. Antes de ensamblar de nuevo la unidad, limpie las piezas internas y el cuerpo. Vea la sección acerca de la limpieza de los tazones de policarbonato.

3. Coloque el desviador, el elemento del filtro y los empaques.

4. Coloque el soporte del elemento. Aplique una torsión de 0,9 a 1,4 Nm (8 a 12 pulgadas por libra).

5. Lubrique el aro tórico (con aceite o grasa de base mineral) para ayudar a retener el aro tórico del tazón durante el ensamblaje. Luego colóquelo en el tazón.

6. Enrosque el tazón en el cuerpo hasta que haga contacto con él; luego regréselo hasta eliminar la compresión del muelle de control.

7. Quite el asiento del obturador, seguido del sello y el muelle para retorno del obturador quitando los elementos de los filtros. Los modelos con drenaje automático (drenaje por pulsos) recolectan y desechan los líquidos automáticamente. Se activan cuando hay una caída de presión dentro del filtro.

8. Aprote el asiento al cuerpo con una torsión de 0,9 a 1,1 Nm (8 a 10 libras pulgada).

**Nota:** Para auxiliarse en este procedimiento, vea las figuras 1, 2 y 3.

9. Lubrique el aro tórico (con aceite o grasa de base mineral) para ayudar a retener el aro tórico del tazón durante el ensamblaje. Luego colóquelo en el tazón.

10. Enrosque el tazón en el cuerpo hasta que haga contacto con él; luego regréselo hasta eliminar la compresión del muelle de control.

11. Verifique que no hay fugas. Si las hay, desactive el suministro de aire, saque la presión de aire del sistema y haga los ajustes necesarios para eliminarlas.

12. Al alcanzar la presión secundaria deseada, presione la perilla para ajuste hacia abajo para fijarla.

**Juegos para servicio disponibles.** Los siguientes juegos para servicio contienen los sellos apropiados y las piezas necesarias para dar servicio corriente en el campo.

<table>
<thead>
<tr>
<th>Artículo #</th>
<th>Descripción</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tazón (filtro regulador en miniatura)</td>
</tr>
<tr>
<td>2</td>
<td>Elemento de filtro (filtro regulador en miniatura)</td>
</tr>
<tr>
<td>3</td>
<td>Desviador (filtro regulador en miniatura)</td>
</tr>
<tr>
<td>4</td>
<td>Aro tórico (filtro regulador en miniatura) - tazón a cuerpo</td>
</tr>
<tr>
<td>5</td>
<td>Muelle para retorno del obturador</td>
</tr>
<tr>
<td>6</td>
<td>Sello del obturador</td>
</tr>
<tr>
<td>7</td>
<td>Aro tórico - cuerpo a bonete</td>
</tr>
<tr>
<td>8</td>
<td>Asiento</td>
</tr>
<tr>
<td>9</td>
<td>Sello con labios - pistón a bonete</td>
</tr>
<tr>
<td>10</td>
<td>Aro tórico - piston a obturador (unidades con descarga, reguladores en miniatura y filtros reguladores en miniatura)</td>
</tr>
<tr>
<td>11</td>
<td>Pistón (se muestra uno con descarga)</td>
</tr>
<tr>
<td>12</td>
<td>Muelle para control</td>
</tr>
<tr>
<td>13</td>
<td>Perilla</td>
</tr>
<tr>
<td>14</td>
<td>Tuerca hexagonal</td>
</tr>
<tr>
<td>15</td>
<td>Tornillo para ajuste</td>
</tr>
<tr>
<td>16</td>
<td>Bonete</td>
</tr>
<tr>
<td>17</td>
<td>Obturador (regulador y filtro regulador en miniatura)</td>
</tr>
<tr>
<td>18</td>
<td>Cuerpo</td>
</tr>
<tr>
<td>19</td>
<td>Empaque (filtro regulador en miniatura) - desviador a cuerpo</td>
</tr>
<tr>
<td>20</td>
<td>Empaque (filtro regulador en miniatura) - soporte del elemento a elemento del filtro</td>
</tr>
<tr>
<td>21</td>
<td>Soporte del elemento (filtro regulador en miniatura)</td>
</tr>
<tr>
<td>22</td>
<td>Aro tórico (14E) - cuerpo a drenaje</td>
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<tr>
<td>23</td>
<td>Drenaje de giro (filtro regulador en miniatura)</td>
</tr>
<tr>
<td>24</td>
<td>Tuerza la Perilla del Desagado</td>
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**Descripción**

<table>
<thead>
<tr>
<th>Extractor</th>
<th>PS452</th>
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<tbody>
<tr>
<td>Juego de elemento de 5 micrones</td>
<td>PS403</td>
<td>N/A</td>
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<tr>
<td>Juego de elemento de 40 micrones</td>
<td>PS401</td>
<td>N/A</td>
</tr>
<tr>
<td>Tazón de metal con drenaje manual</td>
<td>PS447B</td>
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</tr>
<tr>
<td>Tazón de metal con drenaje automático</td>
<td>PS451B</td>
<td>N/A</td>
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<tr>
<td>Juego de soporte para montaje* (anillo plástico)</td>
<td>PS417B</td>
<td>PS417B</td>
</tr>
<tr>
<td>Juego de soporte para montaje* (anillo de aluminio)</td>
<td>PS466</td>
<td>PS466</td>
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<tr>
<td>Tuerca para montaje en tablero, de metal*</td>
<td>P01531</td>
<td>P01531</td>
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<tr>
<td>Juego de pistón y obturador, sin balance, con descarga.</td>
<td>PS426</td>
<td>PS426</td>
</tr>
<tr>
<td>Juego de pistón y obturador, sin balance, sin descarga</td>
<td>PS428</td>
<td>PS428</td>
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<tr>
<td>Tazón de policarbonato con drenaje manual</td>
<td>PS404</td>
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<tr>
<td>Tazón de policarbonato con drenaje automático</td>
<td>PS408B</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Muelles:**

- Rango de 1 a 30 PSIG
- Rango de 2 a 125 PSIG
- Rango de 1 a 15 PSIG

**Juego de soporte para montaje* (anillo de aluminio)**

*Apriete la tuerca de soporte del tablero de 2.8 a 3.4 Nm (Newtons por metro) (25 a 30 pulgadas por libra [63.5 cm. a 76.2 cm. por Kg.]) del par de torsión.

**FIGURA 1:** Filtro / regulador en miniatura - sin balance, con descarga

**FIGURA 2:** Regulador en miniatura - se muestra unidad sin balance, con descarga

**FIGURA 3:** Detalle del sello del obturador
Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

Adsorber Filters are not effective on: Carbon monoxide, carbon dioxide, methane, ethane, ethylene or hydrogen. For a complete list of vapors that can and cannot be adsorbed effectively by activated charcoal adsorbers consult the factory.

Maximum Recommended Pressure Drop:

<table>
<thead>
<tr>
<th>Filter Type</th>
<th>kPa</th>
<th>PSIG</th>
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<tr>
<td>Particulate Filter</td>
<td>70</td>
<td>10</td>
<td>0.7</td>
</tr>
</tbody>
</table>

With Polycarbonate Bowl

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>150</td>
<td>10.3</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Temperature Maximum</th>
<th>°C (°F)</th>
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</thead>
<tbody>
<tr>
<td>52°C (125°F)</td>
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</tr>
<tr>
<td>Operating Temperature Minimum</td>
<td>°C (°F)</td>
</tr>
<tr>
<td>0°C (32°F)</td>
<td></td>
</tr>
</tbody>
</table>

With Metal Bowl

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1700</td>
<td>250</td>
<td>17.0</td>
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</table>

<table>
<thead>
<tr>
<th>Operating Temperature Maximum</th>
<th>°C (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>80°C (175°F)</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Minimum</td>
<td>°C (°F)</td>
</tr>
<tr>
<td>0°C (32°F)</td>
<td></td>
</tr>
</tbody>
</table>

ANSI Symbols

Failure or improper selection or improper use of the products and/or systems described herein or related items can cause death, personal injury and property damage.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Extra copies of these instructions are available for inclusion in equipment / maintenance manuals that utilize these products. Contact your local representative.
Installation

1. The filter should be installed with reasonable accessibility for service whenever possible — repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints — pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Also, new pipe or hose should be installed between the filter and equipment being protected.

2. The upstream pipe work must be clear of accumulated dirt and liquids.

3. Select a filter location as close as possible to the equipment being protected and upstream of any pressure regulator.

4. Install filter so that air flows in the direction of arrow on body.

5. Install filter vertically with bowl drain mechanism at the bottom. Free moisture will thus drain into the sump “quiet zone” at the bottom of the bowl.

Operation and Service

1. Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the lower baffle.

2. The particulate filter element should be removed and replaced when pressure differential across the filter is 10 PSIG.

3. Adsorber elements are designed to adsorb vapporous contaminates. The relative efficiency of an adsorber varies depending on the vapor to be adsorbed and the environmental temperature. At higher temperatures, adsorbers become less efficient.

   Adsorber elements are not particle filters. All particles and aerosols should be removed prior to adsorbing vapporous contaminates. The initial pressure drop across an adsorber element (1.5 PSIG maximum) should never increase. The presence of any liquids, aerosols or particulate matter in an adsorber indicates that the effective life of the element has been exceeded and the element should be replaced and the system cleaned.

   The most effective method of testing whether an element needs to be replaced is to smell the air coming from the adsorber. Offensive odors will be present well before oil levels become detectable.

4. The differential pressure indicator, located on top of the filter body, gives a visual indication of the pressure differential across the filter element. Change the filter element when half or more of the orange piston is above the retaining ring when air is flowing. For units without a differential pressure indicator, pressure differential gauges should be used to determine when the maximum recommended pressure differential has been reached.

5. Shut off air supply and depressurize the unit, before servicing.

6. After servicing, apply system pressure and check for air leaks. If leakage occurs, Do Not Operate — conduct servicing again.

Kits Available

<table>
<thead>
<tr>
<th>Description</th>
<th>05F 1/4&quot; &amp; 3/8&quot;</th>
<th>06F 1/4&quot;, 3/8&quot; &amp; 1/2&quot;</th>
<th>07F 3/8&quot;, 1/2&quot; &amp; 3/4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Kits*</td>
<td>PS902</td>
<td>PS702</td>
<td>PS802</td>
</tr>
<tr>
<td>5 Micron</td>
<td>PS901</td>
<td>PS701</td>
<td>PS801</td>
</tr>
<tr>
<td>40 Micron</td>
<td>PS931</td>
<td>PS731</td>
<td>PS831</td>
</tr>
<tr>
<td>Adsorber</td>
<td>PS988</td>
<td>PS788</td>
<td>PS888</td>
</tr>
<tr>
<td>Porous Bronze</td>
<td>PS781</td>
<td>PS781</td>
<td>PS781</td>
</tr>
<tr>
<td>DPI Repair Kit</td>
<td>PS965</td>
<td>PS764</td>
<td>PS764</td>
</tr>
<tr>
<td>Electronic DPI Kit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Element kits include body / bowl seal.

Lightly grease with provided lubricant.
Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
Clean with lint-free cloth.
Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.
Adsorber Filters are not effective on: Carbon monoxide, carbon dioxide, methane, ethane, ethylene or hydrogen. For a complete list of vapors that can and cannot be adsorbed effectively by activated charcoal adsorbers consult the factory.

Maximum Recommended Pressure Drop:

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<thead>
<tr>
<th>Particulate Filter</th>
<th>kPa</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>70</td>
<td>10</td>
<td>0.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>1700</th>
<th>250</th>
<th>17.0</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Operating Temperature Maximum</th>
<th>80°C (175°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Minimum</td>
<td>0°C (32°F)</td>
</tr>
</tbody>
</table>

ANSI Symbols

![Filter w/ Manual Drain](image1)
![Adsorber w/ Manual Drain](image2)
![Coalescing Filter w/ Manual Drain](image3)

Installation

1. The filter should be installed with reasonable accessibility for service whenever possible – repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Also, new pipe or hose should be installed between the filter and equipment being protected.

2. The upstream pipe work must be clear of accumulated dirt and liquids.

3. Select a filter location as close as possible to the equipment being protected and upstream of any pressure regulator.

4. Install filter so that air flows in the direction of arrow on body.

5. Install filter vertically with bowl drain mechanism at the bottom. Free moisture will thus drain into the sump “quiet zone” at the bottom of the bowl.

Operation and Service

1. Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the lower baffle.

2. The particulate filter element should be removed and replaced when pressure differential across the filter is 10 PSIG.

3. Adsorbent elements are designed to adsorb vaporous contaminate. The relative efficiency of an adsorber varies depending on the vapor to be adsorbed and the environmental temperature. At higher temperatures, adsorbents become less efficient.

Adsorbent elements are not particle filters. All particles and aerosols should be removed prior to adsorbing vaporous contaminants. The initial pressure drop across an adsorber element (1.5 PSIG maximum) should never increase. The presence of any liquids, aerosols or particulate matter in an adsorber indicates that the effective life of the element has been exceeded and the element should be replaced and the system cleaned.

Warning

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

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Extra copies of these instructions are available for inclusion in equipment / maintenance manuals that utilize these products. Contact your local representative.
The most effective method of testing whether an element needs to be replaced is to smell the air coming from the adsorber. Offensive odors will be present well before oil levels become detectable.

4. For Coalescing filter, a 5 micrometer pre-filter is recommended to protect the high efficiency filter and to prolong the elements life.

5. The differential pressure indicator, located on top of the filter body, gives a visual indication of the pressure differential across the filter element. Change the filter element when half or more of the orange piston is above the retaining ring when air is flowing. For units without a differential pressure indicator, pressure differential gauges should be used to determine when the maximum recommended pressure differential has been reached.

6. Shut off air supply and depressurize the unit, before servicing.

7. After servicing, apply system pressure and check for air leaks. If leakage occurs, Do Not Operate — conduct servicing again.

### Service Kits Available

<table>
<thead>
<tr>
<th>Description</th>
<th>Kit Number</th>
<th>Contains Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Kits -</td>
<td></td>
<td>(5) Bowl Seal and (2) Element</td>
</tr>
<tr>
<td>5 Micron</td>
<td>P3NK400ESE</td>
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<tr>
<td>40 Micron</td>
<td>P3NK400ESG</td>
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<tr>
<td>Adsorber</td>
<td>P3NK400ESA</td>
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<tr>
<td>25 Micron Porous Bronze</td>
<td>P3NK400ESJ</td>
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<td>Coalescing / Element Grade 6</td>
<td>P3NK400ESC</td>
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<td>Coalescing / Element Grade 10</td>
<td>P3NK400ES9</td>
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<tr>
<td>DPI Repair Kit</td>
<td>PS781</td>
<td>(6) DPI components (not all shown)</td>
</tr>
<tr>
<td>Auto Drain Kit</td>
<td>PS506</td>
<td>(7) Auto Drain Assembly</td>
</tr>
</tbody>
</table>

Note: If both mating faces have an o-ring groove, units may need to be assembled with two seals. (One square and one round seal.)

- Lightly grease with provided lubricant.
- Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Clean with lint-free cloth.
Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

With Polycarbonate Bowl

<table>
<thead>
<tr>
<th>Pressure (kPa)</th>
<th>Pressure (PSIG)</th>
<th>Pressure (bar)</th>
</tr>
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<tbody>
<tr>
<td>Operating</td>
<td>1000</td>
<td>150</td>
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<tr>
<td>Temperature</td>
<td>52°C (125°F)</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>0°C (32°F)</td>
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With Metal Bowl

<table>
<thead>
<tr>
<th>Pressure (kPa)</th>
<th>Pressure (PSIG)</th>
<th>Pressure (bar)</th>
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<tbody>
<tr>
<td>Operating</td>
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<td>Temperature</td>
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</tr>
<tr>
<td>Minimum</td>
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05 / 15 Series With Metal Bowl and Auto Drain

<table>
<thead>
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<th>Pressure (PSIG)</th>
<th>Pressure (bar)</th>
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</thead>
<tbody>
<tr>
<td>Operating</td>
<td>1000</td>
<td>150</td>
</tr>
<tr>
<td>Temperature</td>
<td>80°C (175°F)</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>0°C (32°F)</td>
<td></td>
</tr>
</tbody>
</table>

Instructions

1. Turn off air supply and depressurize the unit before removing any parts.

Note: Lubricators with auto fill devices require oil system shut-off and disconnection. Filters with automatic drains require disconnection.

⚠️ CAUTION: Be certain that pressure is relieved on both sides of any regulator in a system.

⚠️ WARNING: Conversion or replacement of an old metal bowl with a new plastic bowl will reduce the product

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

⚠️ WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

⚠️ WARNING

Polycarbonate bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and diester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polycarbonate bowls where chemical attack may occasionally occur.

⚠️ WARNING

To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature ratings. Polycarbonate bowls have a 150 PSIG pressure rating and a maximum temperature rating of 125°F.
Bowl Kits, Drain Kits, Bowl Guard Kits, Sight Gauge Kits and Pressure Fill Adapter Kits

1. Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.

2. After installation or service, apply system pressure and check for air leaks. If leakage occurs, DO NOT OPERATE — conduct repairs again.

Kits Available

<table>
<thead>
<tr>
<th>Model</th>
<th>Economy Filter</th>
<th>Economy Lubricator</th>
<th>Compact Filter</th>
<th>Compact Lubricator</th>
<th>Standard Filter</th>
<th>Standard Lubricator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Polycarbonate Bowl Kits</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto Drain</td>
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<td>PS722</td>
<td>—</td>
<td>PS822</td>
<td>—</td>
</tr>
<tr>
<td>Auto Pulse Drain</td>
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</tr>
<tr>
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<td>PS917</td>
<td>PS732</td>
<td>PS717</td>
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<td>Semi Auto Drain</td>
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<td>—</td>
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</tr>
<tr>
<td>Pressure Fill</td>
<td>—</td>
<td>PS919</td>
<td>—</td>
<td>PS719</td>
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<td>PS728</td>
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<td>PS746</td>
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<td><strong>Metal Bowl Kits</strong></td>
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<td>PS726</td>
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<td>Auto Pulse Drain</td>
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<td>PS723</td>
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<td>PS923P</td>
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<td>PS929</td>
<td>PS735</td>
<td>PS729</td>
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<td>PS929</td>
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<tr>
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<td>—</td>
<td>PS706</td>
<td>—</td>
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<td>PS720</td>
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<tr>
<td>Auto Pulse Drain</td>
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</tr>
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<td>Push &quot;N&quot; Drain</td>
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<td>—</td>
<td>PS513</td>
<td>—</td>
<td>PS513</td>
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<tr>
<td><strong>Bowl Guard Kit</strong></td>
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<td>—</td>
<td>PS705</td>
<td>—</td>
<td>PS905</td>
<td>—</td>
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<tr>
<td><strong>Bowl Insert Kit</strong></td>
<td>PS796</td>
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<td>PS796</td>
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<tr>
<td>Pressure Fill Adaptor Kit</td>
<td>—</td>
<td>PS916</td>
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<td>PS716</td>
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<tr>
<td>Sight Gauge Kit</td>
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<td>—</td>
<td>PS914</td>
<td>—</td>
<td>PS914</td>
<td>—</td>
</tr>
</tbody>
</table>

Pressure / temperature rating. Be certain that the circuit and environment does not exceed the lower ratings; and that rating labels elsewhere on the product are replaced with one describing the lower rating. Failure to do so may cause property damage, injury or death.

2. After installation or service, apply system pressure and check for air leaks. If leakage occurs, DO NOT OPERATE — conduct repairs again.
Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

Regulator (06/07 Collar)

<table>
<thead>
<tr>
<th>Maximum Temperature</th>
<th>Minimum Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>80°C (175°F)</td>
<td>0°C (32°F)</td>
</tr>
</tbody>
</table>

Metal Bowl (06/07 Collar)

<table>
<thead>
<tr>
<th>Maximum Temperature</th>
<th>Minimum Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>80°C (175°F)</td>
<td>0°C (32°F)</td>
</tr>
</tbody>
</table>

Polycarbonate Bowl (06/07 Collar)

<table>
<thead>
<tr>
<th>Maximum Temperature</th>
<th>Minimum Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>52°C (125°F)</td>
<td>0°C (32°F)</td>
</tr>
</tbody>
</table>

Regulators

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Plastic Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
<tr>
<td>07 Plastic Collar</td>
<td>1700</td>
<td>Not Used</td>
<td></td>
</tr>
<tr>
<td>07 Metal Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
</tbody>
</table>

Lubricators (Metal Bowl)

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Plastic Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
<tr>
<td>07 Plastic Collar</td>
<td>1700</td>
<td>Not Used</td>
<td></td>
</tr>
<tr>
<td>07 Metal Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
</tbody>
</table>

Lubricators (Polycarbonate Bowl)

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Plastic Collar</td>
<td>1000</td>
<td>150</td>
<td>10.3</td>
</tr>
<tr>
<td>07 Plastic Collar</td>
<td>1000</td>
<td>150</td>
<td>10.3</td>
</tr>
<tr>
<td>07 Metal Collar</td>
<td>1000</td>
<td>Not Used</td>
<td></td>
</tr>
</tbody>
</table>

Filters (Metal Bowl)

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Plastic Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
<tr>
<td>07 Plastic Collar</td>
<td>1700</td>
<td>Not Used</td>
<td></td>
</tr>
<tr>
<td>07 Metal Collar</td>
<td>1700</td>
<td>250</td>
<td>17</td>
</tr>
</tbody>
</table>

Filters (Metal Bowl Plastic DPI Retaining Ring)

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>06 Plastic Collar</td>
<td>1000</td>
<td>150</td>
<td>10.3</td>
</tr>
<tr>
<td>07 Plastic Collar</td>
<td>1000</td>
<td>Not Used</td>
<td></td>
</tr>
<tr>
<td>07 Metal Collar</td>
<td>1000</td>
<td>150</td>
<td>10.3</td>
</tr>
</tbody>
</table>

Service

Shut off air supply and depressurize the unit. Loosen and remove the threaded collar. Remove sight gauge when replacing collar used on metal bowl with sight gauge. Install new collar. Secure sight gauge to metal bowl using 1.4 to 1.7 Nm (12 to 15 in. lbs. torque. Tighten 06 filter/lubricator collar 3.2 to 3.6 Nm (28 to 32 in. lbs. torque. Tighten 07 filter/lubricator collar to 5.4 to 5.9 Nm (48 to 52 in. lbs. torque. Tighten 06/07 regulator collar hand tight plus 1/4 turn.

Apply system pressure and check for air leaks. Repeat all steps (including shut off and depressurization) if leaks occur.

Threaded Collar

Coalescing Filter

NOTE: DPI (Differential Pressure Indicator)

The coalescing filter drawing shows the location of DPI retaining ring. The DPI retaining ring is used only on coalescing filters. Regulators, lubricators, and particulate filters do not use a DPI retaining ring.

⚠️ WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.
WARNING
To avoid unpredictable system behavior that can cause personal injury and property damage:
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, and air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

WARNING
Product rupture can cause serious injury.
Do not exceed maximum primary pressure rating.

Safety Guide
For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

Safety: Polycarbonate Bowls

CAUTION
Polycarbonate bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, or temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and di-ester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polycarbonate bowls where chemical attack may occur.

WARNING
To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure of temperature ratings. Polycarbonate bowls have a 150 PSIG (1030 kPa) pressure rating and a maximum temperature rating of 52°C (125°F).

Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.

With Polycarbonate Bowl

<table>
<thead>
<tr>
<th>Parameter</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure Maximum</td>
<td>1000</td>
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<td>10.3</td>
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<tr>
<td>Operating Temperature Maximum</td>
<td>52°C</td>
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</tr>
<tr>
<td>Operating Temperature Minimum</td>
<td>0°C</td>
<td>32°F</td>
<td></td>
</tr>
</tbody>
</table>

With Metal Bowl

<table>
<thead>
<tr>
<th>Parameter</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Pressure Maximum</td>
<td>1700</td>
<td>250</td>
<td>17.0</td>
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<tr>
<td>Operating Temperature Maximum</td>
<td>80°C</td>
<td>175°F</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Minimum</td>
<td>0°C</td>
<td>32°F</td>
<td></td>
</tr>
</tbody>
</table>

Note: The maximum recommended pressure drop for a particulate filter is 70 kPa (10 PSIG, 0.7 bar)

Symbols

![Symbols](image)

Installation

1. The Filter / Regulator should be installed with reasonable accessibility for service whenever possible – repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips.
2. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Also, new pipe or hose should be installed between the Filter / Regulator and equipment being protected.
3. The upstream pipe work must be clear of accumulated dirt and liquids.
4. Select a Filter / Regulator location as close as possible to the equipment being protected.
5. Install Filter / Regulator vertically with the bowl drain mechanism at the bottom. Free moisture will thus drain into the sump (“quiet zone”) at the bottom of the bowl.
6. Gauge ports are located on both sides of the filter/regulator body for your convenience. It is necessary to install a gauge or socket pipe plugs into each port during installation.

WARNING
FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

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**Operation**

1. Both free moisture and solids are removed automatically by the filter. Units with coalescing elements (e.g., 12E series) also remove oil. For coalescing units, a 5 micrometer pre-filter is recommended to protect and prolong the life of the coalescent filter element.
2. Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the baffle or end cap.
3. The filter element should be removed and replaced when pressure differential across the filter is 69 kPa (10 PSIG).
4. Before turning on the air supply, turn the knob counterclockwise until compression is released from the pressure control spring. Then turn knob clockwise and adjust regulator to desired downstream pressure. This permits pressure to build up slowly in the downstream line.
5. To decrease regulated pressure settings, always reset from a pressure lower than the final setting required. Example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).
6. When desired secondary pressure settings have been reached, push the knob down to lock this pressure setting.

**Service**

**Caution:** Disconnect or shut off air supply and exhaust the primary and secondary pressures before servicing unit. Turning the adjusting knob counterclockwise does not vent downstream pressure on non-relieving regulators. Downstream pressure must be vented before servicing regulator.

**Note:** Grease packets are supplied with kits for lubrication of seals. Use only mineral based grease or oils. Do not use synthetic oils such as esters. Do not use silicones.

**Note:** After servicing unit, turn on air supply and adjust regulator to the desired downstream pressure. Check unit for leaks. If leakage occurs, do not operate - conduct repairs and retest.

**Servicing Filter Element -**

**A. 05E, 06E, 07E & 27E Units (Refer to Figure 1.)**

1. Unscrew the bottom threaded collar and remove bowl.
2. Unscrew the baffle and then remove element.
3. Clean all internal parts and bowl before reassembling. See polycarbonate bowl cleaning section. **IMPORTANT:** The 05E, 06E, 07E & 27E Filter / Regulator will not operate properly if the deflector (or rubber spacer if using an 06E adsorber) is not installed properly. The deflector (or rubber spacer) must be installed between the filter stem and the filter body.
4. Install new element.
5. Attach baffle and finger tighten firmly.
6. Replace bowl seal. Lightly lubricate new seal to assist with retaining it in position.
7. Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

**B. 12E Units (Refer to Figure 2.)**

1. Hold bowl collar stationary while unscrewing and removing bowl.
2. Unscrew end cap and then remove element. (Do not remove threaded rod.)
3. Clean all internal parts and bowl before reassembling.
4. Install new element.
5. Attach end cap and finger tighten firmly.
6. Replace bowl seal. Lightly lubricate new seal to assist with retaining it in position.
7. Thread bowl into collar; hand tighten until bowl stops against collar.

**Servicing Regulator -**

**A. 05E, 06E, 07E & 27E Units - (Refer to Figure 1.)**

1. Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
2. Remove the bonnet and bowl assemblies by unscrewing the two threaded collars.
3. Remove diaphragm assembly from bonnet assembly.
4. Remove filter stem, filter element, poppet assembly, poppet return spring, (seat) insert and its o-rings.
5. Clean and carefully inspect parts for wear or damage. If replacement is necessary, use parts from service kits. Clean bowl. See polycarbonate bowl cleaning section.
6. Lubricate o-ring and vee packing seals with grease found in service kits.
7. Install poppet return spring, poppet assembly, (seat) insert and its o-rings, and filter stem. **IMPORTANT:** The 05E, 06E, 07E & 27E Filter / Regulator will not operate properly if the deflector (or rubber spacer) if using an 06E adsorber) is not installed properly. The deflector (or rubber spacer) must be installed between the filter stem and filter body.
8. Install filter element and firmly tighten baffle onto the filter stem.
9. Install diaphragm assembly into bonnet assembly. Assemble bonnet assembly to body and tighten threaded collar from 5.4 to 5.9 Nm (48 to 52 in-lbs).
10. Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

**B. 12E Units - (Refer to Figure 2.)**

1. Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
2. Remove the bonnet assembly by unscrewing its threaded collar.
3. Remove the bottom collar and bowl as an integral unit. **Note:** The reverse flow adapter and element assembly should remain in proper alignment with the collar; they are held in place by the o-ring between the adapter and the collar.
4. Remove diaphragm assembly from bonnet assembly.
5. Remove poppet assembly, poppet return spring, (seat) insert and its o-rings.
6. Clean and carefully inspect parts for wear or damage. If replacement is necessary, use parts from service kits.
7. Lubricate o-ring and vee packing seals with grease found in service kits.
8. Install poppet return spring, poppet assembly, (seat) insert and its o-rings.
9. Install diaphragm assembly into bonnet assembly. Assemble bonnet assembly to body and tighten threaded collar from 5.4 to 5.9 Nm (48 to 52 in-lbs).
10. Install bottom collar and bowl subassembly into body. Tighten collar hand tight, plus 1/4 turn.

<table>
<thead>
<tr>
<th>MAINTENANCE SERVICE KITS</th>
<th>05E</th>
<th>06E</th>
<th>07E</th>
<th>12E</th>
<th>27E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Kits 5 Micron</td>
<td>PS902</td>
<td>PS702</td>
<td>PS802</td>
<td>N/A</td>
<td>PS902</td>
</tr>
<tr>
<td>40 Micron</td>
<td>PS901</td>
<td>PS701</td>
<td>PS801</td>
<td>N/A</td>
<td>PS901</td>
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<tr>
<td>Grade 6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>PS884</td>
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<td>PS885</td>
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<tr>
<td>Relieving Regulator Repair Kit</td>
<td>PS908</td>
<td>PS710</td>
<td>PS810</td>
<td>PS886</td>
<td>PS907</td>
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<tr>
<td>Non-Relieving Regulator Repair Kit</td>
<td>PS909</td>
<td>PS711</td>
<td>PS811</td>
<td>PS887</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Figure 1: 05E, 06E, 07E & 27E**

**Figure 2: 12E**
Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>1700 kPa</th>
<th>250 PSIG</th>
<th>17.0 bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Maximum</td>
<td>80°C (175°F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Temperature Minimum</td>
<td>0°C (32°F)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The maximum recommended pressure drop for a particulate filter is 70 kPa (10 PSIG, 0.7 bar).

Symbols

Installation
1. The filter/regulator should be installed with reasonable accessibility for service whenever possible – repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Also, new pipe or hose should be installed between the filter/regulator and equipment being protected.

2. The upstream pipe work must be free of accumulated dirt and liquids.

3. Select a filter/regulator location as close as possible to the equipment being protected.

4. Install filter/regulator so that air flows in the direction of arrow on body.

5. Install filter/regulator vertically with the bowl drain mechanism at the bottom. Free moisture will thus drain into the sump (“quiet zone”) at the bottom of the bowl.

6. Gauge ports are located on both sides of the filter/regulator body for your convenience. It is necessary to install a gauge or socket pipe plugs into each port during installation.

Operation
1. Both free moisture and solids are removed automatically by the filter.

2. Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the baffle or end cap.

3. The filter element should be removed and replaced when pressure differential across the filter is 69 kPa (10 PSIG).

4. Before turning on the air supply, turn the knob counterclockwise until compression is released from the pressure control spring. Then turn knob clockwise and adjust regulator to desired downstream pressure. This permits pressure to build up slowly in the downstream line.

5. To decrease regulated pressure settings, always reset from a pressure lower than the final setting required. Example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 PSIG) is best accomplished by dropping the secondary pressure to 350 kPa (50 PSIG), then adjusting upward to 410 kPa (60 PSIG).

6. When desired secondary pressure settings have been reached, push the knob down to lock this pressure setting.

WARNING
To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

WARNING
Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.

Safety Guide
For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

Failure or improper selection or improper use of the products and/or systems described herein or related items can cause death, personal injury and property damage. This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.
Service

Caution: Disconnect or shut off air supply and exhaust the primary and secondary pressures before servicing unit. Turning the adjusting knob counterclockwise does not vent downstream pressure on non-relieving regulators. Downstream pressure must be vented before servicing regulator.

Note: Grease packets are supplied with kits for lubrication of seals. Use only mineral based grease or oils. Do not use synthetic oils such as esters. Do not use silicones.

Note: After servicing unit, turn on air supply and adjust regulator to the desired downstream pressure. Check unit for leaks. If leakage occurs, do not operate - conduct repairs and retest.

Servicing Filter Element

Refer to picture for disassembling, servicing, and re-assembling unit.

Servicing Regulator

1. Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
2. Disassemble and service as required. Refer to picture for details.
3. Re-assemble unit. Refer to picture for details.

Lightly grease with provided lubricant.
Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
Clean with lint-free cloth.

Note: If both mating faces have an o-ring groove, units may need to be assembled with two seals. (One square and one round seal.)

Service Kits Available

<table>
<thead>
<tr>
<th>Description</th>
<th>Kit Number</th>
<th>Contains Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element Kits:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Micron</td>
<td>P3NKA00ESE</td>
<td>(5) Bowl Seal and (2) Element</td>
</tr>
<tr>
<td>40 Micron</td>
<td>P3NKA00ESG</td>
<td></td>
</tr>
<tr>
<td>25 Micron Porous Bronze</td>
<td>P3NKA00ESJ</td>
<td></td>
</tr>
<tr>
<td>Relieving Regulator Repair Kit</td>
<td>P3NKA00RR</td>
<td>(1) Piston, (3) O-ring, (4) Poppet Assembly, (6) Poppet Return Spring, (7) Lipseal, (8) O-ring</td>
</tr>
<tr>
<td>Non-relieving Regulator Repair Kit</td>
<td>P3NKA00RN</td>
<td></td>
</tr>
<tr>
<td>Auto Drain Kit</td>
<td>PS506</td>
<td>(9) Auto Drain Assembly</td>
</tr>
</tbody>
</table>

M8 x 90 Bolt (4 Places)
M8 x 15 Bolt (4 Places)
M8 x 20 Bolt (4 Places)

T Handle
Adjusting Knob
Control Spring
Bonnet
Lipseal
O-Ring
O-Ring
Bowl Seal
Snap Fit Tab
Detent must snap in groove for proper assembly. (To remove bowl depress tab, turn & pull bowl down.)

Twist Drain
Torque: 1.1 - 1.7Nm (10 - 15 in. lb.)

Bowl rotated 90 for illustration purposes.

Service Kit Available
Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

With Polycarbonate Bowl

<table>
<thead>
<tr>
<th>Pressure</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
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<td>Maximum</td>
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Operating Temperature

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<tbody>
<tr>
<td>Maximum</td>
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<td>175</td>
</tr>
</tbody>
</table>

With Metal Bowl

<table>
<thead>
<tr>
<th>Pressure</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
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<td>250</td>
</tr>
</tbody>
</table>

Operating Temperature

<table>
<thead>
<tr>
<th>Temperature</th>
<th>°C</th>
<th>°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>80</td>
<td>175</td>
</tr>
</tbody>
</table>

ANSI Symbol

![Lubricator w/ Manual Drain and Lubricator Less Drain]

Installation

1. The lubricator should be installed with reasonable accessibility for service whenever possible. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.

2. Install lubricator so air flows in the direction of arrow on body.

3. Installation should be upstream of the device it is to lubricate (valve, cylinders, tool, etc.).

WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

CAUTION

Polycarbonate bowls, being transparent and tough, are ideal for use with filters and lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, or temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and diester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polycarbonate bowls where chemical attack may occasionally occur.

WARNING

To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature ratings. Polycarbonate bowls have a 150 PSIG pressure rating and a maximum temperature rating of 125°F.

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety
Mist lubricator — Every drop visible in the sight dome goes downstream.

Micromist lubricator — Approximately 3% of the droplets visible in the sight dome go downstream; adjust drip rate accordingly. Consult oil delivery conversion chart.

Generally, one drop per minute downstream for every 10 - 15 SCFM flow is satisfactory.

25 drops per minute equals one (1) ounce per hour - volume of oil passing through the sight dome.

NOTE: This is a constant density type lubricator which delivers a constant ratio of oil air flow. Therefore, if air flow increases or decreases, oil delivery will be adjusted proportionately. ONLY IF A DIFFERENT RATIO IS DESIRED SHOULD YOUR ADJUSTMENT KNOB SETTING BE CHANGED AFTER YOUR INITIAL SETTING.

\[
\begin{array}{c|c|c|c}
\text{Dome Drip Rate DPM} & 33 & 67 & 100 \\
\hline
\text{Downstream Delivery DPM} & 100 & 133 & 167 \\
\end{array}
\]

4. To replace fill plug, drip control, & service lubricator:
   A. Turn off air supply and depressurize the unit.
   B. Refer to pictorial for servicing and torque values.
   C. Turn on air supply and check lubricator for leakage. If leakage occurs, DO NOT OPERATE — conduct repairs again.

### Kits Available

<table>
<thead>
<tr>
<th>Description</th>
<th>15L</th>
<th>Mist 06L /07L</th>
<th>Micromist 16L /17L</th>
</tr>
</thead>
<tbody>
<tr>
<td>lubricator Repair Kit</td>
<td>PS918</td>
<td>PS718</td>
<td>PS748</td>
</tr>
<tr>
<td>Drip Control (Polycarbonate) and Fill Plug Kit</td>
<td>PS938</td>
<td>PS738</td>
<td>PS739</td>
</tr>
<tr>
<td>Drip Control (Nylon) and Fill Plug Kit</td>
<td>PS938N</td>
<td>PS738N</td>
<td>PS739N</td>
</tr>
</tbody>
</table>

**Note:** Sixth character in model number denotes drip control material. For B or F use the polycarbonate kit, and for C or G use the nylon kit.
Introduction
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.

<table>
<thead>
<tr>
<th>Operating Pressure Maximum</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1700</td>
<td>250</td>
<td>17.0</td>
</tr>
</tbody>
</table>

**WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

**CAUTION**

Polycarbonate bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydro-carbons, ketones, esters, and certain alcohols. They should not be used in air systems where compressors are lubricated with fire resistant fluids such as phosphate esters and di-esters types. In areas where polycarbonate bowls are exposed to high temperatures or atmospheres containing vapors or fluids, which are damaging to plastic, use metal bowls.

Metal bowls resist the action of most such solvents but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleaning agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polycarbonate bowls where chemical attack may occasionally occur.

**Safety Guide**

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

**Installation**

1. The lubricator should be installed with reasonable accessibility for service whenever possible. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.
2. Install lubricator so air flows in the direction of arrow on body.
3. Installation should be upstream of the device it is to lubricate (valve, cylinders, tool, etc.).

**Operation and Service**

(Refer to Pictorial on Following Page)

1. Filling — The Mist lubricator can be filled without turning off the upstream pressure. Slowly remove the fill plug by turning clockwise. This allows the bowl pressure to vent.

2. Delivery adjustment — To adjust oil delivery, turn adjustment knob on top of the lubricator. Excessive torque is not required. If leakage occurs, DO NOT OPERATE — conduct repairs again. The lubricator is now ready for setting.
3. Oil delivery adjustment — To adjust oil delivery, turn adjustment knob on top of the lubricator.

**WARNING**

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This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

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EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.
**1" Lubricator Series**

**Leaner — Clockwise**

**Richer — Counterclockwise**

By counting the number of drops per minute in the sight dome, you can adjust to your requirements.

Mist lubricator — Every drop visible in the sight dome goes downstream.

Generally, one drop per minute downstream for every 10 - 15 SCFM flow is satisfactory.

25 drops per minute equals one (1) ounce per hour - volume of oil passing through the sight dome.

![Diagram of the lubricator system]

NOTE: This is a constant density type lubricator which delivers a constant ratio of oil air flow. Therefore, if air flow increases or decreases, oil delivery will be adjusted proportionately. ONLY IF A DIFFERENT RATIO IS DESIRED SHOULD YOUR ADJUSTMENT KNOB SETTING BE CHANGED AFTER YOUR INITIAL SETTING.

4. To replace fill plug, drip control, & service lubricator:

A. Turn off air supply and depressurize the unit.

B. Refer to pictorial for servicing and torque values.

C. Turn on air supply and check lubricator for leakage. If leakage occurs, DO NOT OPERATE — conduct repairs again.

<table>
<thead>
<tr>
<th>Service Kits Available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Lubricator Repair Kit</td>
</tr>
<tr>
<td>Sight Dome / Drip Control (Polycarbonate)</td>
</tr>
<tr>
<td>Sight Dome / Drip Control (Polyamide / Nylon)</td>
</tr>
</tbody>
</table>

---

Lightly grease with provided lubricant.

Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.

Clean with lint-free cloth.

---

OIL

Torque value for assembling units together, port blocks, and mounting brackets: 5 to 6 Nm (48 to 52 in.lb.)

M8 x 90 Bolt (4 Places)

M8 x 15 Bolt (4 Places)

M8 x 20 Bolt (4 Places)
Introduction

Follow these instructions when installing, operating, or servicing the product.

WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

CAUTION

Polycarbonate bowls, being transparent and tough, are ideal for use with Filters and Lubricators. They are suitable for use in normal industrial environments, but should not be located in areas where they could be subjected to direct sunlight, an impact blow, nor temperatures outside of the rated range. As with most plastics, some chemicals can cause damage. Polycarbonate bowls should not be exposed to chlorinated hydrocarbons, ketones, esters and certain alcohols. They should not be used in air systems where compressors are lubricated with fire-resistant fluids such as phosphate ester and diester types.

Metal bowls are recommended where ambient and/or media conditions are not compatible with polycarbonate bowls. Metal bowls resist the action of most such solvents, but should not be used where strong acids or bases are present or in salt laden atmospheres. Consult the factory for specific recommendations where these conditions exist.

TO CLEAN POLYCARBONATE BOWLS USE MILD SOAP AND WATER ONLY! DO NOT use cleansing agents such as acetone, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Bowl guards are recommended for added protection of polycarbonate bowls where chemical attack may occasionally occur.

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety
Installation

Attach inner clamp to wall bracket using the screw provided. See Figures 1 & 2 for screw torque values. Mount wall bracket to wall using spacing shown in Figure 3. The wall brackets are designed to use 1/4 inch screws. Attach the port blocks to pipe threads using a small amount of thread sealant. Position the port blocks with two bumps pointing down (06 & 07 Series). The unit will leak if the port blocks are not positioned properly. Assemble each inner and outer clamp with the tube seal and spacer installed as shown. The inner and outer clamp must be installed with proper orientation as shown in Figures 1 & 2. Install the clamp screws with one thread of engagement. Position the filter, regulator, or lubricator with the angled surface of body ears engaged with the angled surface of the inner and outer clamp. The regulator must be installed with knob pointing down. The filter/regulator must be installed with the knob pointing up. Tighten the clamp screws alternating between the two screws per connector until both screws are snug. Check the alignment of each body to verify fit between body and clamp. The bottom flange of the inner and outer clamp must be positioned below the bottom edge of the body. Pressurize the assembly and check for air leaks. If air leaks are found, depressurize the unit. Loosen the outer clamp and check fit between the body and clamps. Retighten the screws and check for air leaks.

Removal

Disconnect air supply and depressurize all air lines before removing any modular units.

**WARNING**

Loosening the outer clamp screws may cause the filter, regulator, lubricator, or accessory to dislodge and fall. It is important to take necessary precautions when loosening the outer clamp screws to prevent the unit from falling and causing injury.

Loosen the outer clamp screws 8-9 turns. It is not necessary to completely remove the screws. Slide the unit down until it disconnects from the clamps. It may be necessary to pull the outer clamp out when removing one of the units from the assembly.
Introduction:
Follow these instructions when installing, operating, or servicing the product.

Application Limits
These products are intended for use in general purpose compressed air systems only.

Operating Pressure:

<table>
<thead>
<tr>
<th>Series</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>2.83</td>
<td>2.28</td>
<td>1.14</td>
<td>1.16</td>
<td>28</td>
<td>43</td>
<td>28</td>
<td>1.49</td>
<td>2.31</td>
</tr>
<tr>
<td>06</td>
<td>2.96</td>
<td>2.11</td>
<td>1.05</td>
<td>1.23</td>
<td>27</td>
<td>42</td>
<td>25</td>
<td>2.00</td>
<td>2.74</td>
</tr>
<tr>
<td>07</td>
<td>3.22</td>
<td>2.37</td>
<td>1.17</td>
<td>1.32</td>
<td>27</td>
<td>42</td>
<td>25</td>
<td>2.12</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Right Angle Bracket Dimensions

<table>
<thead>
<tr>
<th>Series</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>6.7</td>
<td>170 mm</td>
<td>9.7</td>
<td>246 mm</td>
<td>10.7</td>
<td>272 mm</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Installation
The right angle bracket can be installed using the two methods outlined on reverse side. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe - never the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction.

Extra copies of these instructions are available for inclusion in equipment / maintenance manuals that utilize these products. Contact your local representative.
Right Angle Bracket

**Direct Piped Method**

The direct piped method is used when the right angle bracket is bolted to the user’s machine and the inlet and outlet pipe is screwed directly into the back of the ninety degree bracket. A through hole must be provided in the user’s machine to allow access for the inlet and outlet pipe.

**Manifold Method**

This method is used when the right angle bracket is mounted to the user’s manifold. The inlet and outlet pipe is screwed into the manifold. An o-ring is used to seal between the bracket and manifold.

### Direct Pipe Ported Method

<table>
<thead>
<tr>
<th>Series</th>
<th>A (Inch)</th>
<th>B (Inch)</th>
<th>C (Inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>1.142</td>
<td>2.383</td>
<td>.88 Dia. 22.4 mm</td>
</tr>
<tr>
<td>06</td>
<td>1.055</td>
<td>2.110</td>
<td>.88 Dia. 22.4 mm</td>
</tr>
<tr>
<td>07</td>
<td>2.375</td>
<td>1.173</td>
<td>1.00 Dia. 25.4 mm</td>
</tr>
</tbody>
</table>

### Manifold Mounting Method

<table>
<thead>
<tr>
<th>Series</th>
<th>I.D. (Inch)</th>
<th>W (Inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>.737</td>
<td>.103</td>
</tr>
<tr>
<td>06</td>
<td>.737</td>
<td>.103</td>
</tr>
<tr>
<td>07</td>
<td>.862</td>
<td>.103</td>
</tr>
</tbody>
</table>
Introduction

Follow these instructions when installing, operating, or servicing the product.

Application Limits

These products are intended for use in general purpose compressed air systems only.

Operating Pressure:

- Maximum Inlet Pressure
- Ambient Temperature Range: 0°C to 80°C (32°F to 175°F)

Symbols

- Relieving Regulator
- Non-Relieving Regulator

Installation

1. The regulator should be installed with reasonable accessibility for service whenever possible - repair service kits are available. Keep pipe and tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe - never into the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside unit, possibly causing malfunction.

2. Install regulator so that air flow is in the direction of arrow. Installation must be upstream (high pressure) side and as close to the device it is to service (valve, cylinder, tool, etc.). Mounting may be in any position.

3. Gauge ports are located on both sides of the regulator body for your convenience. It is necessary to install a gauge or pipe plugs into each port during installation.

4. For protection against rust, pipe scale, and other foreign matter, install a filter on the upstream (high pressure) side as close to the regulator as possible.

Operation

1. Before turning on the air supply, turn the adjusting knob (Economy, Precision, Compact, Standard) or “T” handle (Hi-Flow) counterclockwise until compression is released from the control spring. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting knob/handle clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment to desired secondary pressure can be made only with primary pressure applied to the regulator.

2. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 psig) is best accomplished by dropping the secondary pressure to 350 kPa (50 psig), then adjusting upward to 410 kPa (60 psig). On Economy, Precision, Compact and Standard units, push the adjusting knob down to lock the pressure setting. And on the Hi-Flow unit, lighten the hex nut against the bonnet to lock setting.

Service

CAUTION:

SHUT OFF AIR SUPPLY and exhaust the primary and secondary pressure before disassembling regulator unit. (Turning the knob/ handle counterclockwise reduces regulator’s setting, but does not vent downstream pressure on non-relieving regulators.)

CAUTION:

Lubricate parts with a mineral based oil/grease or silicone grease. DO NOT use synthetic oils/greases such as esters.

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

Installation and Service Instructions

2R101G

1/4” & 3/8” Economy
1/4” & 3/8” Precision
1/4”, 3/8” & 1/2” Compact
3/8”, 1/2” & 3/4” Standard
3/4”, 1-1/4” & 1-1/2” Hi-Flow

ISSUED: September, 2006
Supersedes: April, 2006

Doc.# 2R101, ECN# 060870, Rev. 14

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.
A. Use the following procedure to service Economy, Precision, Compact and Standard units, see Figures 1, 2 & 3:

1. Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.

2. Unscrew the threaded collar and remove the bonnet assembly. Next, disassemble, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.

3. Lubricate o-ring and lip seals with grease (supplied with kits).

4. Install diaphragm assembly into bonnet. Then install bonnet assembly to body and tighten threaded collar hand tight plus 1/4 turn. Use the following procedure to service Hi-Flow units, see Figure 3.

B. Servicing the Piston and/or Control Springs-

1. Turn the adjusting handle counterclockwise until compression is released from the pressure control spring.

2. Disassemble bonnet by lifting its retaining spring out and pulling on the exposed loop to remove spring.

3. Disassemble, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.

4. Lubricate the piston’s o-ring with grease (supplied with kits).

5. Install piston, piston’s o-ring, control spring, and spring retainer. Place bonnet into body, allowing the projecting notches on bonnet to mate with depressions in the body. Then feed retaining spring into the joint groove until it completely encircles the joint.

C. Servicing the Poppet Assembly-

1. Exhaust system air pressure as previously described. Then remove cap by unscrewing it from body. Next, remove poppet assembly, o-ring (Economy, Precision), lip seals (Hi-Flow), cap’s o-ring and poppet return spring.

2. Next, disassemble, clean, and carefully inspect parts for wear and/or damage. If replacement is necessary, use parts from service kits.

3. Lubricate o-ring (Economy, Precision), lip seals (Hi-Flow), and sliding surfaces using grease supplied with service kit.

4. Install parts as shown in figure. Orient lip seals with the lips of the seals facing away from their support flange.

5. Lubricate cap’s o-ring and install it in o-ring groove on cap. Then screw cap into body until the cap bottoms out in body.

6. Turn on air supply and adjust to desired secondary pressure as described in the Operation section.

Lightly grease with provided lubricant.

Inspect for nicks, scratches, and surface imperfections.

If present, reduced service life is probable and future replacement should be planned.

Clean with lint-free cloth.

If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.

Service Kits Available

<table>
<thead>
<tr>
<th>Service Kit</th>
<th>Economy</th>
<th>Precision</th>
<th>Compact</th>
<th>Standard</th>
<th>Hi-Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulator (Standard) Repair Kit (Relieving)</td>
<td>PS908</td>
<td>PS907</td>
<td>PS708</td>
<td>PS808</td>
<td>N/A</td>
</tr>
<tr>
<td>Regulator (Reverse Flow) Repair Kit (Relieving)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS708R</td>
<td>PS808R</td>
<td>N/A</td>
</tr>
<tr>
<td>Regulator (Standard) Repair Kit (Non-Relieving)</td>
<td>PS909</td>
<td>N/A</td>
<td>PS709</td>
<td>PS809</td>
<td>N/A</td>
</tr>
<tr>
<td>Regulator (Reverse Flow) Repair Kit (Non-Relieving)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS709R</td>
<td>PS809R</td>
<td>N/A</td>
</tr>
<tr>
<td>Seat Insert Repair Kit (Standard)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS713</td>
<td>PS813</td>
<td>N/A</td>
</tr>
<tr>
<td>Seat Insert Repair Kit (Reverse Flow)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS813</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Bonnet Assembly</td>
<td>PS915</td>
<td>N/A</td>
<td>PS715</td>
<td>PS715</td>
<td>N/A</td>
</tr>
<tr>
<td>Air Pilot Conversion (Non-Relieving)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS944</td>
<td>PS744</td>
<td>PS744</td>
</tr>
<tr>
<td>Air Pilot Conversion (Relieving)</td>
<td>N/A</td>
<td>N/A</td>
<td>PS945</td>
<td>PS745</td>
<td>PS745</td>
</tr>
<tr>
<td>Mounting Bracket Kit</td>
<td>PS963</td>
<td>N/A</td>
<td>PS963</td>
<td>PS707</td>
<td>PS807</td>
</tr>
<tr>
<td>Relieving Piston Kit</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>PS310</td>
</tr>
<tr>
<td>Non-Relieving Piston Kit</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>PS311</td>
</tr>
<tr>
<td>Body Service Kit (Balanced Poppet)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>PS312B</td>
</tr>
<tr>
<td>Gauges: Low Pressure</td>
<td>0 to 410 kPa (0 to 60 psig)</td>
<td>K4515N14060</td>
<td>K4520N14060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Pressure</td>
<td>0 to 1100 kPa (0 to 160 psig)</td>
<td>K4515N14160</td>
<td>K4520N14160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Pressure</td>
<td>0 to 2070 kPa (0 to 300 psig)</td>
<td>K4515N14300</td>
<td>K4520N14300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1: Economy & Precision

Figure 2: Compact & Standard

Figure 3: Hi-Flow
**Installation & Service Instructions**

**2R300C**

**1” Regulator Series**

**ISSUED:** August, 2006  
**Supersedes:** April, 2006  
**Doc. # 2R300C, ECN #060900, Rev 8**

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**WARNING**

To avoid unpredictable system behavior that can cause personal injury and property damage:
- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer’s specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

**WARNING**

Product rupture can cause serious injury. Do not connect regulator to bottled gas. Do not exceed maximum primary pressure rating.

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**Safety Guide**

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogs or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

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**Introduction**

Follow these instructions when installing, operating, or servicing the product.

**Application Limits**

These products are intended for use in general purpose compressed air systems only.

**Operating Pressure:**

<table>
<thead>
<tr>
<th>Maximum Inlet Pressure</th>
<th>kPa</th>
<th>PSIG</th>
<th>bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1720</td>
<td>250</td>
<td>17.2</td>
<td></td>
</tr>
</tbody>
</table>

**Ambient Temperature Range:** 0°C to 80°C (32°F to 175°F)

**Symbols**

- Relieving Regulator 
- Non-Relieving Regulator

**Installation**

1. The regulator should be installed with reasonable accessibility for service whenever possible - repair service kits are available. Keep pipe and tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe - never into the female port. Do not use PTFE tape to seal pipe joints - pieces have a tendency to break off and lodge inside unit, possibly causing malfunction.

2. Install regulator so that air flow is in the direction of arrow. Installation must be upstream (high pressure) side and as close to the devices it is to service (valve, cylinder, tool, etc.). Mounting may be in any position.

3. Gauge ports are located on both sides of the regulator body. It is necessary to install a gauge or pipe plugs into each port during installation.

4. For protection against rust, pipe scale, and other foreign matter, install a filter on the upstream (high pressure) side as close to the regulator as possible.

**Operation**

1. Before turning on the air supply, turn the adjusting knob or “T” handle counterclockwise until compression is released from the control spring. Then turn on air supply and adjust regulator to desired secondary pressure by turning adjusting knob/handle clockwise. This permits pressure to build up slowly, preventing any unexpected operation of the valve, cylinders, tools, etc., attached to the line. Adjustment to desired secondary pressure can be made only with primary pressure applied to the regulator.

2. To decrease regulator pressure setting, always reset from a pressure lower than the final setting desired. For example, lowering the secondary pressure from 550 to 410 kPa (80 to 60 psig) is best accomplished by dropping the secondary pressure to 350 kPa (50 psig), then adjusting upward to 410 kPa (60 psig).

   Push the adjusting knob down to lock the pressure setting. On the “T” handle units, tighten the hex nut against the bonnet to lock setting.

**Service**

**CAUTION:**

SHUT OFF AIR SUPPLY and exhaust the primary and secondary pressure before disassembling regulator unit. (Turning the knob/handle counterclockwise reduces regulator's setting, but does not vent downstream pressure on non-relieving regulators.)

**WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE. This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

**EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUSION IN EQUIPMENT / MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.**
**CAUTION:**
Lubricate parts with a mineral based oil/grease or silicone grease. DO NOT use synthetic oils/greases such as esters.

A. Use the following procedure to service bonnet assembly and components.

1. (Adjustable Regulator only) Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.

2. Disassemble and service as required. Refer to pictures for details.

3. Reassemble Unit. Refer to pictures for details.

B. Servicing the Poppet Assembly

1. (Adjustable Regulator only) Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.

2. Remove bottom cap:
   a) Remove screw
   b) Turn cap and pull down counter clockwise.

3. Disassemble parts and services as required. Refer to pictures for details.

4. Reassemble unit. Refer to pictures for details.

Turn on air pressure and check regulator for leakage. If leakage occurs, DO NOT OPERATE — conduct repairs again.

- Lightly grease with provided lubricant.
- Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Clean with lint-free cloth.

Adjust to desired secondary pressure as described in the operation section.

If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.

### Service Kits Available

<table>
<thead>
<tr>
<th>Description</th>
<th>Kit Number</th>
<th>Contains Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulator (Standard)</td>
<td>P3NKA00RR</td>
<td>(1) Piston, (2) Lipseal, (3) O-Ring, (4) Poppet Assembly, (5) O-Ring, (6) Poppet Return Spring, and (7) Seal</td>
</tr>
<tr>
<td>Repair Kit (Relieving)</td>
<td>P3NKA00RN</td>
<td>(8) Piston, (9) Lipseal, (3) O-Ring</td>
</tr>
<tr>
<td>Air Pilot Control Piston Kit</td>
<td>P3NKA00PD</td>
<td>(8) Piston, (9) Lipseal, (3) O-Ring</td>
</tr>
<tr>
<td>Mounting Bracket Kit</td>
<td>P3NKA00MW</td>
<td>Not Shown</td>
</tr>
</tbody>
</table>

**Gauges:**

- **Low Pressure**
  - 0 to 410 kPa (0 to 60 PSIG) K4520N14060 Not Shown
- **Standard Pressure**
  - 0 to 1100 kPa (0 to 160 PSIG) K4520N14160 Not Shown
- **High Pressure**
  - 0 to 2070 kPa (0 to 300 PSIG) K4520N14300 Not Shown

Adjust to desired secondary pressure as described in the operation section.

If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.
Global Air Preparation System

WARNING

To avoid unpleasant system behaviour that can cause personal injury or property damage:
- Disconnect electrical supply whenever necessary before installation, servicing or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing or conversion.
- Operate with the manufacturer's specified pressure and temperature conditions and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage.
- Warning and specifications on the product should not be covered by paint, etc. If marking is not possible, contact your local representative for replacement labels.

1. Ball Valve
2. Slide Valve
3. Safety Lockout Valves

Safety Guide

For more complete information on recommended application guidelines, see the Safety Guide section of Pneumatic Division catalogues or you can download the Pneumatic Division Safety Guide at: www.parker.com/safety

WARNING

To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature limits. Polycarbonate bowls have a 150 PSI (10 bar) pressure rating and a maximum temperature rating of 125°F (52°C).

EXTRA COPIES OF THESE INSTRUCTIONS ARE AVAILABLE FOR INCLUDE IN EQUIPMENT MAINTENANCE MANUALS THAT UTILIZE THESE PRODUCTS. CONTACT YOUR LOCAL REPRESENTATIVE.

5FRL100 Rev. 3
www.parker.com EN100698

MISE EN GARDE

Afin de prévenir tout comportement désagréable de système pouvant entraîner des dommages matériels ou corporels:
- Débrancher l'alimentation électrique avant tout travail de réparation ou de conversion.
- Arrêter l’alimentation pneumatique et dégazier avant tout travail de réparation ou de conversion.
- Opérer à la pression et à la température spécifiée par le fabricant et selon les conditions listées dans ces instructions.
- Le milieu doit être sec si la température ambienne est inférieure à 0°C.
- Procéder au service conformément aux procédures indiquées dans ces instructions.
- L’installation, le service et la conversion de ces produits doivent être réalisés par du personnel compétent qui comprend comment utiliser de manière sûre les produits pneumatiques.
- Après l’installation, le service et la conversion, connecter les alimentations en air et en électricité (si nécessaire) et tester le produit pour veiller à un fonctionnement correct et à l’absence de fuites.
- Les indications et la documentation sur le produit ne doivent pas être recouverts par de la peinture, etc. Si elles ne peuvent pas être visibles, contacter votre représentant local pour obtenir des étiquettes de remplacement.

Pour de plus amples informations sur les directives à appliquer recommandées, voir la section Guide de sécurité du catalogue du Pneumatic Division ou vous pouvez télécharger le Guide de sécurité de la Pneumatic Division à : www.parker.com/safety

MISE EN GARDE

La mauvaise utilisation de la sélection impropre du matériel d’air ou des systèmes décrits aux présentes, ou d’autres articles connexes, peut entraîner la mort, des blessures corporelles et des dommages matériels.

Le présent document et toute autre information provienant de la Société, de ses filiales et distributeurs agréés se réfèrent à des produits et/ou des systèmes décrits aux présentes, y compris et sans limitation, les caractéristiques, les spécifications, les prix, etc., et peuvent faire l’objet de modifications par la Société et ses filiales, à tout moment et sans préavis.

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1. Ball Valve
2. Slide Valve
3. Safety Lockout Valves
ATTENZIONE
Per evitare comportamenti irresponsabili del sistema che possono procurare motivi gravosi.

Sciolgere l'alimentazione elettrica (se necessario) prima di installazione, manutenzione o conversione.

Utilizzare il prodotto alla pressione, alla temperatura e all'altitudine specificate qui sopra.

Fianco dev'essere presso il punto di inflazione esterna, non sottile e non superiore a 10 bar. Il prodotto non può essere utilizzato per pressioni che superano il valore nominale.

Se si verifica perdita o funzionamento anomalo del prodotto, non utilizzarlo.

Le avvertenze e le specifiche sul prodotto non devono essere coperte o coperte da etichette. Contattare il proprio rappresentante locale per la revisione di queste indicazioni.

Le lastrine in policarbonato, trasparenti e robuste, sono ideali per l'uso con filtri e lubrificatori. Sono indicate per l'uso in normali sistemi di esterio e di esterio di fosfati.

Per maggiori dettagli e altre informazioni fornite dall'azienda, relative affiliati e distributori autorizzati, vengono presentate opzioni di prodotti e/o servizi.

IT
La lastrine in policarbonato, trasparenti e robuste, sono ideali per l'uso con filtri e lubrificatori. Sono indicate per l'uso in normali sistemi di esterio e di esterio di fosfati.

EN
ATTENTION
Pour éviter des comportements irresponsables du système qui peuvent causer des problèmes importants.

Désinstaller l'alimentation électrique (s'il nécessaire) avant l'installation, la maintenance ou la conversion.

Utiliser le produit à la pression, à la température et à l'altitude spécifi que ici.

Côté devrait être près du point d'installation extérieure, pas trop mince et pas supérieur à 10 bar. Le produit ne peut pas être utilisé pour des pressions supérieures au valeur nominale.

Si une fuite ou un fonctionnement anormal du produit est détecté, ne pas l'utiliser.

Les avertissements et les spécifi ques du produit ne doivent pas être couverts ou cachés par des étiquettes. Contacter le représentant local pour la vérifi cation de ces indications.

Les plaques de polycarbonate, transparentes et solides, sont idéales pour l'utilisation avec les filtres et lubrifiants. Elles sont indiquées pour l'utilisation dans les systèmes d'esterio et d'esterio de phosphates.

Pour plus d'informations et d'autres informations fournies par l'entreprise, relatives aux affiliés et distributeurs autorisés, des options de produits et/ou services sont proposées.

FR
警告
為避免不負責任的系統行為，可能導致嚴重問題。

請先斷開電源（如必要）再進行安裝、維護或轉換。

使用產品時，請注意其壓力、溫度和海拔。

側面應靠近外置作業的端口，且不能形成尖銳或超過10 bar。本產品不適用於超過額定值的壓力使用。

若檢測到漏氣或異常運行情況，請勿使用。

產品上的警示和規格應未被掩蓋或遮蔽。請聯絡當地經銷商進行確認。

聚碳酸酯板，透明且堅固，特別適合與過濾器及潤滑油配合使用。適用於一般工業及磷酸基油。

更多詳情及由公司及授權經銷商提供的其他產品和/或服務選項，請參閱相關資訊。

ZH
Safety Guide For Selecting And Using Pneumatic Division Products And Related Accessories

1. GENERAL INSTRUCTIONS

1.1. Scope: This safety guide is designed to cover general guidelines on the installation, use, and maintenance of Pneumatic Division Valves, FRLs (Filters, Pressure Regulators, and Lubricators), Vacuum products and related accessory components.

1.2. Fail-Safe: Valves, FRLs, Vacuum products and their related components can and do fail without warning for many reasons. Design all systems and equipment in a fail-safe mode, so that failure of associated valves, FRLs or Vacuum products will not endanger persons or property.


1.4. Distribution: Provide a copy of this safety guide to each person that is responsible for selection, installation, or use of Valves, FRLs or Vacuum products. Do not select, or use Parker valves, FRLs or vacuum products without thoroughly reading and understanding this safety guide as well as the specific Parker publications for the products considered or selected.

1.5. User Responsibility: Due to the wide variety of operating conditions and applications for valves, FRLs, and vacuum products Parker and its distributors do not represent or warrant that any particular valve, FRL or vacuum product is suitable for any specific end use system. This safety guide does not analyze all technical parameters that must be considered in selecting a product. The user, through its own analysis and testing, is solely responsible for:
   • Making the final selection of the appropriate valve, FRL, Vacuum component, or accessory.
   • Assuring that all user’s performance, endurance, maintenance, safety, and warning requirements are met and that the application presents no health or safety hazards.
   • Complying with all existing warning labels and / or providing all appropriate health and safety warnings on the equipment on which the valves, FRLs or Vacuum products are used; and,
   • Assuring compliance with all applicable government and industry standards.

1.6. Safety Devices: Safety devices should not be removed, or defeated.

1.7. Warning Labels: Warning labels should not be removed, painted over or otherwise obscured.

1.8. Additional Questions: Call the appropriate Parker technical service department if you have any questions or require any additional information. See the Parker publication for the product being considered or used, or call 1-800-CPARKER, or go to www.parker.com, for telephone numbers of the appropriate technical service department.

2. PRODUCT SELECTION INSTRUCTIONS

2.1. Flow Rate: The flow rate requirements of a system are frequently the primary consideration when designing any pneumatic system. System components need to be able to provide adequate flow and pressure for the desired application.

2.2. Pressure Rating: Never exceed the rated pressure of a product. Consult product labeling, Pneumatic Division catalogs or the instruction sheets supplied for maximum pressure ratings.

2.3. Temperature Rating: Never exceed the temperature rating of a product. Excessive heat can shorten the life expectancy of a product and result in complete product failure.

2.4. Environment: Many environmental conditions can affect the integrity and suitability of a product for a given application. Pneumatic Division products are designed for use in general purpose industrial applications. If these products are to be used in unusual circumstances such as direct sunlight and/or corrosive or caustic environments, such use can shorten the useful life and lead to premature failure of a product.

2.5. Lubrication and Compressor Carryover: Some modern synthetic oils can and will attack nitrile seals. If there is any possibility of synthetic oils or greases migrating into the pneumatic components check for compatibility with the seal materials used. Consult the factory or product literature for materials of construction.

2.6. Polycarbonate Bowls and Sight Glasses: To avoid potential polycarbonate bowl failures:
   • Do not locate polycarbonate bowls or sight glasses in areas where they could be subject to direct sunlight, impact blow, or temperatures outside of the rated range.
   • Do not expose or clean polycarbonate bowls with detergents, chlorinated hydro-carbons, keytones, esters or certain alcohols.
   • Do not use polycarbonate bowls or sight glasses in air systems where compressors are lubricated with fire resistant fluids such as phosphate ester and di-ester lubricants.

PDNSG-1
2.7. Chemical Compatibility: For more information on plastic component chemical compatibility see Pneumatic Division technical bulletins Tec-3, Tec-4, and Tec-5.

2.8. Product Rupture: Product rupture can cause death, serious personal injury, and property damage.
   • Do not connect pressure regulators or other Pneumatic Division products to bottled gas cylinders.
   • Do not exceed the maximum primary pressure rating of any pressure regulator or any system component.
   • Consult product labeling or product literature for pressure rating limitations.

3. PRODUCT ASSEMBLY AND INSTALLATION INSTRUCTIONS

3.1. Component Inspection: Prior to assembly or installation a careful examination of the valves, FRLs or vacuum products must be performed. All components must be checked for correct style, size, and catalog number. DO NOT use any component that displays any signs of nonconformance.

3.2. Installation Instructions: Parker published Installation Instructions must be followed for installation of Parker valves, FRLs and vacuum components. These instructions are provided with every Parker valve or FRL sold, or by calling 1-800-CPARKER, or at www.parker.com.

3.3. Air Supply: The air supply or control medium supplied to Valves, FRLs and Vacuum components must be moisture-free if ambient temperature can drop below freezing.

4. VALVE AND FRL MAINTENANCE AND REPLACEMENT INSTRUCTIONS

4.1. Maintenance: Even with proper selection and installation, valve, FRL and vacuum products service life may be significantly reduced without a continuing maintenance program. The severity of the application, risk potential from a component failure, and experience with any known failures in the application or in similar applications should determine the frequency of inspections and the servicing or replacement of Pneumatic Division products so that products are replaced before any failure occurs. A maintenance program must be established and followed by the user and, at minimum, must include instructions 4.2 through 4.10.

4.2. Installation and Service Instructions: Before attempting to service or replace any worn or damaged parts consult the appropriate Service Bulletin for the valve or FRL in question for the appropriate practices to service the unit in question. These Service and Installation Instructions are provided with every Parker valve and FRL sold, or are available by calling 1-800-CPARKER, or by accessing the Parker web site at www.parker.com.


4.4. Visual Inspection: Any of the following conditions requires immediate system shut down and replacement of worn or damaged components:
   • Air leakage: Look and listen to see if there are any signs of visual damage to any of the components in the system. Leakage is an indication of worn or damaged components.
   • Damaged or degraded components: Look to see if there are any visible signs of wear or component degradation.
   • Kinked, crushed, or damaged hoses. Kinked hoses can result in restricted air flow and lead to unpredictable system behavior.
   • Any observed improper system or component function: Immediately shut down the system and correct malfunction.
   • Excessive dirt build-up: Dirt and clutter can mask potentially hazardous situations.

Caution: Leak detection solutions should be rinsed off after use.

4.5. Routine Maintenance Issues:
   • Remove excessive dirt, grime and clutter from work areas.
   • Make sure all required guards and shields are in place.

4.6. Functional Test: Before initiating automatic operation, operate the system manually to make sure all required functions operate properly and safely.

4.7. Service or Replacement Intervals: It is the user’s responsibility to establish appropriate service intervals. Valves, FRLs and vacuum products contain components that age, harden, wear, and otherwise deteriorate over time. Environmental conditions can significantly accelerate this process. Valves, FRLs and vacuum components need to be serviced or replaced on routine intervals. Service intervals need to be established based on:
   • Previous performance experiences.
   • Government and / or industrial standards.
   • When failures could result in unacceptable down time, equipment damage or personal injury risk.

4.8. Servicing or Replacing of any Worn or Damaged Parts: To avoid unpredictable system behavior that can cause death, personal injury and property damage:
   • Follow all government, state and local safety and servicing practices prior to service including but not limited to all OSHA Lockout Tagout procedures (OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – Lockout / Tagout).
   • Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
   • Disconnect air supply and depressurize all air lines connected to system and Pneumatic Division products before installation, service, or conversion.
   • Installation, servicing, and / or conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
   • After installation, servicing, or conversions air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or if the product does not operate properly, do not put product or system into use.
   • Warnings and specifications on the product should not be covered or painted over. If masking is not possible, contact your local representative for replacement labels.

4.9. Putting Serviced System Back into Operation: Follow the guidelines above and all relevant Installation and Maintenance Instructions supplied with the valve FRL or vacuum component to insure proper function of the system.