

Pneumatic Division

Richland, Michigan USA

www.parker.com/pneumatics



COMBINATION UNITS

Bulletin Number			Bulletin Description
☐	2F101H	Rev. 13	05 / 06 / 07 Filter, Installation & Service
☐	2R101G	Rev. 14	05 / 06 / 07 Regulator, Installation & Service
☐	2L101E	Rev. 8	05 / 06 / 07 Lubricator, Installation & Service
☐	2FR100G	Rev. 11	05 / 06 / 07 Filter/Regulator, Installation & Service
☐	2M100D	Rev. 6	05 / 06 / 07 Modular Kits
☐	2M300C	Rev. 4	05 / 06 / 07 Right Angle Bracket
☐	1R402F	Rev. 11	14G "B" Installation & Service
☐	1R602	Rev. 7	14G "C" Installation & Service
☐	2F300E	Rev. 9	P3N Filter, Installation & Service
☐	2R300C	Rev. 8	P3N Regulator, Installation & Service
☐	2L300C	Rev. 7	P3N Lubricator, Installation & Service
☐	2FR300D	Rev. 9	P3N Filter/Regulator, Installation & Service
☐	5FRL100	Rev. 3	Global Air Preparation Systems
☐	2FL101E	Rev. 10	Kits: Bowls, Drain, Bowl Guard, Sight Gauge and Pressure Fill Adapter
☐	2FL102	Rev. 1	06 / 07 Threaded Collar
☐	Safety Guide	—	PDN Safety Guide

⚠ 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.

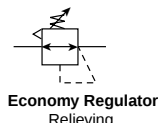
Application Limits

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:	kPa	PSIG	bar
Mini Regulator (Plastic Body)	827	120	8.32
Economy Regulator (Metal Body)	1720	250	17.2

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

Symbol



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

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

Service Kits Available

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

Description	Economy Regulator
Bonnet Assembly	L01369
Mounting Bracket Kit* (plastic ring)	PS417B
Mounting Bracket Kit* (aluminum ring)	PS466
Panel Mount Nuts* Plastic Metal	P78652 P01531
Piston Kit - Non-Relieving	PS422
Piston Kit - Relieving	PS423
Poppet Kit - Unbalanced	PS454
Tamperproof Kit	P01265

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

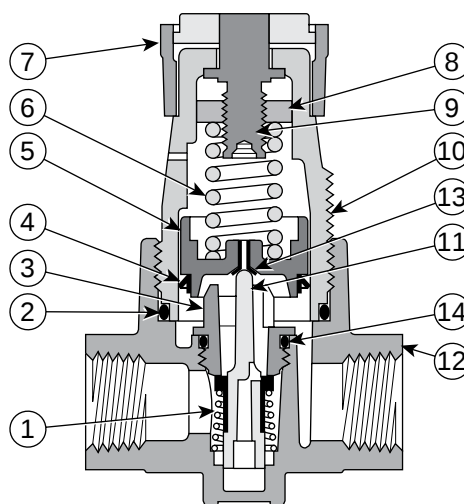


FIGURE 1: Economy Regulator - (Balanced, Relieving Unit Shown)

⚠ WARNING

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- 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.

⚠ 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

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Introduction

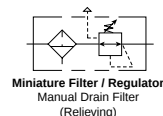
Follow these instructions when installing, operating, or servicing the product.

Application Limits

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

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

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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 /or 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 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.
 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) is best accomplished by dropping the secondary pressure to 350 kPa (50 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.

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

Item#	Description
1	Bowl (Miniature Filter Regulator)
2	Filter Element (Miniature Filter Regulator)
3	Deflector (Miniature Filter Regulator)
4	O-ring (Miniature Filter Regulator) - bowl to body
5	Poppet Return Spring
6	Poppet Seal
7	O-ring - body to bonnet
8	Seat
9	Lip Seal - piston to bonnet
10	O-ring - piston to poppet (Miniature Regulator & Filter / Regulator relieving units)
11	Piston (relieving shown)
12	Control Spring
13	Knob
14	Hex Nut
15	Adjusting Screw
16	Bonnet
17	Poppet (Miniature Regulator & Filter / Regulator)
18	Body

- 19 Gasket (Miniature Filter Regulator) - deflector to body
- 20 Gasket (Miniature Filter Regulator) - element holder to filter element
- 21 Element Holder (Miniature Filter Regulator)
- 22 O-ring (14E) - body to drain
- 23 Twist Drain (Miniature Filter Regulator)
- 24 Twist Drain Knob

Service Kits Available

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

Description	Miniature Filter / Regulator	Miniature Regulator
Adsorber	PS452	PS452
5 Micron Element Kit	PS403	N/A
40 Micron Element Kit	PS401	N/A
Metal Bowl w/Manual Drain	PS447B	N/A
Metal Bowl w/Automatic Drain	PS451B	N/A
Mounting Bracket Kit* (plastic ring)	PS417B	PS417B
Mounting Bracket Kit* (aluminum ring)	PS466	PS466
Panel Mount Nut - Metal*	P01531	P01531
Piston & Poppet Kit - Unbal. Rel.	PS426	PS426
Piston & Poppet Kit - Unbal. Non-Rel	PS428	PS428
Polycarbonate Bowl w/Manual Drain	PS404	N/A
Polycarbonate Bowl w/Automatic Drain	PS408B	N/A
Springs: 1-30 PSIG Range 1-60 PSIG Range 2-125 PSIG Range 1-15 PSIG Range	P01175	P01175
	P01174	P01174
	P01173	P01173
	P01176	P01176
Twist Drain Knob	P05117	

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

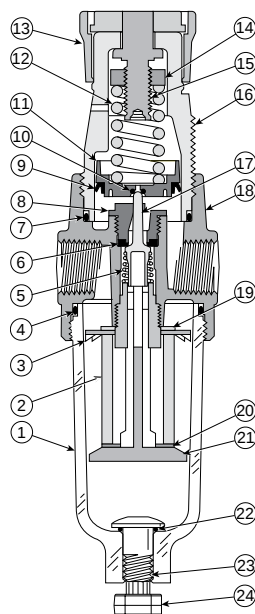


FIGURE 1: Miniature Filter / Regulator - Un-balanced, Relieving

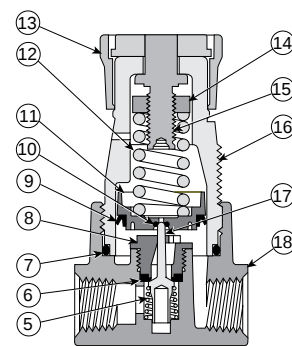


FIGURE 2: Miniature Regulator - Un-balanced, Relieving Unit Shown

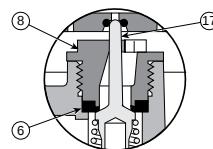


FIGURE 3: Detail of Poppet Seal

AVERTISSEMENT

Afin d'éviter un fonctionnement imprévu du système pouvant occasionner des blessures aux 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 médium 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 salée. Si de telles conditions existent, contactez le fabricant pour des recommandations spécifiques.

NETTOYEZ LES BOLS EN POLYCARBONATE UNIQUEMENT A L'EAU ET AU SAVON DOUX ! NE PAS utiliser d'agents nettoyants tels que l'acétone, le benzène, le tétrachlorure de carbone, l'essence, le toluène, 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

Suivre ces instructions pendant l'installation, l'utilisation ou l'entretien du produit.

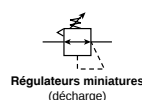
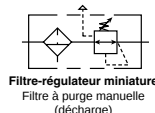
Limites d'utilisation

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

Pression d'admission maximale de fonctionnement	kPa	psi	bar
Filtre-régulateur miniature (avec cuve en plastique)	1030	150	10,3
Filtre-régulateur miniature (avec cuve métallique)	1720	250	17,2
Régulateur miniature (corps métallique)	2000	300	20,0

Plage de température ambiante 0 °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 saleté 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 être 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 vérins, 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 réduire 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).

Utilisation du filtre et régulateur

1. L'humidité libre et les solides sont éliminés automatiquement par le filtre et 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 DECRITS, OU PRODUITS Y AFFECTANT, 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 des utilisateurs ayant 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 DE CES INSTRUCTIONS SONT DISPONIBLES POUR ACCOMPAGNER LES APPAREILS/MANUELS D'ENTRETIEN CORRESPONDANT A CES PRODUITS. CONTACTEZ VOTRE REPRESENTANT LOCAL.

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

Entretien



⚠ ATTENTION – 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 débloquent (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 lèvres (9) et le ressort de commande pour réparer le sous-ensemble du chapeau. 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. Installer le joint à lèvres 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 chapeau.
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 chapeau 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 réduire 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. Monter le support d'élément. Serrer à un couple de 0,9 à 1,4 Nm (8 à 12 in-lb).
5. Lubrifier le joint torique avec de l'huile minérale ou de la graisse pour faciliter l'installation du joint torique du dispositif de retenue pendant l'installation de la cuve. Le placer ensuite sur la cuve.
6. Visser la cuve à fond sur le corps et reculer la cuve d'un huitième de tour.
7. Mettre le système sous pression et 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.

En cas de question sur l'intervention de l'appareil, contacter le distributeur local agréé ou le représentant technique.

Liste d'identification des pièces

N° de référence	Description
1	Cuve (filtre et régulateur miniature)
2	Elément filtrant (filtre-régulateur miniature)
3	Défecteur (filtre-régulateur miniature)
4	Joint torique (filtre-régulateur miniature), entre la cuve et le corps
5	Ressort de rappel du clapet
6	Joint du clapet
7	Joint torique, entre le corps et le chapeau
8	Siège
9	Joint à lèvres, entre le piston et le chapeau

- 10 Joint torique, entre le piston et le clapet (dispositif d'évacuation
du régulateur miniature et du filtre-régulateur)
- 11 Piston (avec évacuation montré)
- 12 Ressort de commande
- 13 Bouton
- 14 Ecrou six pans
- 15 Vis de réglage
- 16 Chapeau
- 17 Clapet (régulateur miniature et filtre-régulateur)
- 18 Corps
- 19 Joint (filtre-régulateur miniature), entre le déflecteur et le corps
- 20 Joint (filtre-régulateur miniature), entre le support d'élément et l'élément
filtrant
- 21 Élément filtrant (filtre-régulateur miniature)
- 22 Joint torique (14E), entre le corps et la purge
- 23 Purge tournant (filtre-régulateur miniature)
- 24 Tordre le Bouton d'Egout

Kits d'intervention offerts

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

Description	Filtre-régulateur	Régulateur miniature
Elément absorbant	PS452	PS452
Kit d'élément de 5 microns	PS403	N/A
Kit d'élément de 40 microns	PS401	N/A
Cuve métallique avec purge manuelle	PS447B	N/A
Cuve métallique avec purge automatique	PS451B	N/A
Kit de patte de montage* (bague en plastique)	PS417B	PS417B
Kit de patte de montage* (bague en aluminium)	PS466	PS466
Ecrou métallique de montage sur le panneau*	P01531	P01531
Kit de piston et clapet, évacuation sans équilibre	PS426	PS426
Kit de piston et clapet, sans évacuation sans équilibre	PS428	PS428
Cuve en polycarbonate avec purge manuelle	PS404	N/A
Cuve en polycarbonate avec purge automatique	PS408B	N/A
Ressorts: Plage de 1 à 2,1 bar (1 à 30 psi)	P01175	P01175
Plage de 1 à 4,1 bar (1 à 60 psi)	P01174	P01174
Plage de 2 à 8,6 bar (2 à 125 psi)	P01173	P01173
Plage de 1 à 1,0 bar (1 à 15 psi)	P01176	P01176
Tordre le Bouton d'Eqout	P05117	

*Serrer l'écrou de montage du panneau à un couple de 2.8 à 3.4 Nm (25 à 30 po/lb).

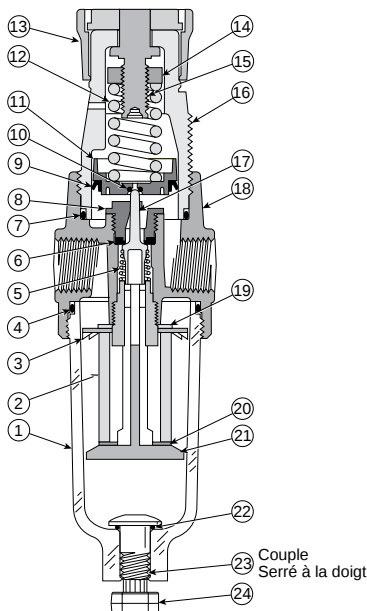


FIGURE 1 – Filtre et régulateur miniature, sans équilibre, avec évacuation

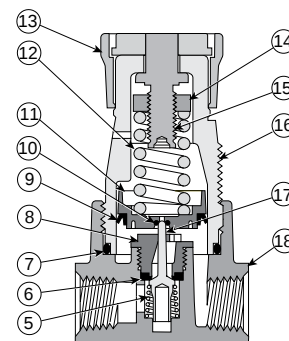


FIGURE 2 – Régulateur miniature, sans équilibre, avec dispositif d'évacuation montré

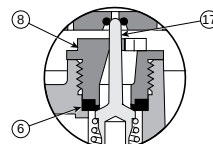


FIGURE 3 – Détail du joint de clapet

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 despresurice 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.

La Seguridad: Las Tazas Transparentes

PRECAUCIÓN:

Las tazas de policarbonato, al ser transparentes y resistentes, son ideales para usar con Filtros y Lubricadores. Son aptas para usar en ambientes industriales normales, pero no se deben ubicar en zonas en donde queden expuestas a luz solar directa, un golpe de impacto, o una temperatura por fuera de su clasificación. Al igual que con la mayoría de los plásticos, ciertos productos químicos pueden ocasionar daños. No se debe exponer las tazas de policarbonato a los hidrocarburos clorinados, las cetonas, los ésteres y ciertos alcoholes. No se los debe usar en sistemas de aire en donde se lubrica los compresores de aire usando fluidos resistentes al fuego tal como los tipos de ester fosfato 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 existen 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 este plástico.

ADVERTENCIA

La ruptura del producto puede ocasionar lesiones graves.
No conecte el regulador al gas embotellado.
No exceda la clasificación de presión primaria máxima.

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 Neumática (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

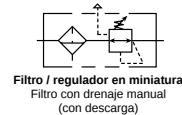
Estos productos han sido diseñados para usarse solamente en sistemas de aire comprimido para propósitos generales.

Máxima presión (de entrada) para funcionamiento kPa PSIG barras

Filtro / regulador en miniatura (con tazón plástico)	1030	150	10,3
Filtro / regulador en miniatura (con tazón 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 juntas 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.
4. Instale filtros en el lado flujo arriba (alta presión) tan cerca a los reguladores como sea posible para protegerlos contra el moho, las escamas de las tuberías y otros materiales extraños.

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 el sentido de las agujas del reloj. Con esto se permite que la presión se acumule lentamente, evitando todo funcionamiento inesperado de las válvulas, cilindros, herramientas, etc. unidas a la línea. Sólo se puede ajustar la presión secundaria deseada cuando hay presión principal aplicada al regulador.
2. 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).

Funcionamiento de los filtros / reguladores

1. Los filtros / reguladores eliminan automáticamente tanto la humedad libre como los sólidos.
2. Se deben drenar regularmente los filtros con drenaje manual antes de que la humedad y el aceite desalojados lleguen a la parte baja del soporte

ADVERTENCIA

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 conocimientos técnicos. 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. COMUNIQUESE 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.

- 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.

- Destrabe la perilla de ajuste tirando de ella hacia arriba (con la unidad en posición vertical). Luego gire la perilla para ajuste en el sentido contrario a las agujas del reloj, hasta eliminar la compresión del muelle de control.
- 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. Desenrosque 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.

- 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.
- Coloque una película ligera 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 ensamblaje.

- 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.
- Coloque en el hueco el conjunto de muelle para retorno del obturador y el obturador, seguido del sello y el asiento del obturador.
- Apriete el asiento al cuerpo con una torsión de 0,9 a 1,1 Nm (8 a 10 libras pulgada). Apriete el bonete al cuerpo con una torsión de 5,6 a 7,3 Nm (50 a 65 libras pulgada).
- 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.
- 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).
- Al alcanzar la presión secundaria deseada, presione la perilla para ajuste hacia abajo para fijarla.
- 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.

- Desenrosque el tazón y el soporte del elemento. Después saque el elemento del filtro, el desviador y los empaques.
- 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.
- Coloque el desviador, el elemento del filtro y los empaques.
- Coloque el soporte del elemento. Aplique una torsión de 0,9 a 1,4 Nm (8 a 12 libras pulgada).
- 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.
- Enrosque el tazón en el cuerpo hasta que haga contacto con él; luego regréselo 1/8 de revolución.
- Presurice el sistema y verifique que no tenga fugas. Si las hay, desactive el suministro de aire, saque la presión del sistema y haga los ajustes necesarios para eliminarlas.

Si tiene alguna pregunta acerca de cómo dar servicio a esta unidad, póngase en contacto con el concesionario autorizado de su localidad o con el representante de servicio al cliente.

Lista para Identificación de Piezas

Artículo #	Descripción
1	Tazón (filtro regulador en miniatura)
2	Elemento de filtro (filtro regulador en miniatura)
3	Desviador (filtro regulador en miniatura)
4	Aro tórico (filtro regulador en miniatura) - tazón a cuerpo
5	Muelle para retorno del obturador
6	Sello del obturador
7	Aro tórico - cuerpo a bonete

- Asiento
- Sello con labios - pistón a bonete
- Aro tórico - pistón a obturador (unidades con descarga, reguladores en miniatura y filtros reguladores en miniatura)
- Pistón (se muestra uno con descarga)
- Muelle para control
- Perilla
- Tuerca hexagonal
- Tornillo para ajuste
- Bonete
- Obturador (regulador y filtro regulador en miniatura)
- Cuerpo
- Empaque (filtro regulador en miniatura) - desviador a cuerpo
- Empaque (filtro regulador en miniatura) - soporte del elemento a elemento del filtro
- Soporte del elemento (filtro regulador en miniatura)
- Aro tórico (14E) - cuerpo a drenaje
- Drenaje de giro (filtro regulador en miniatura)
- Tuerza la Perilla del Desaguadero

Juegos para servicio disponibles.

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

Description	Filtros / reguladores en miniatura	Reguladores en miniatura
Extractor	PS452	PS452
Juego de elemento de 5 micrones	PS403	N/A
Juego de elemento de 40 micrones	PS401	N/A
Tazón de metal con drenaje manual	PS447B	N/A
Tazón de metal con drenaje automático	PS451B	N/A
Juego de soporte para montaje* (anillo plástico)	PS417B	PS417B
Juego de soporte para montaje* (anillo de aluminio)	PS466	PS466
Tuerca para montaje en tablero, de metal*	P01531	P01531
Juego de pistón y obturador, sin balance, con descarga.	PS426	PS426
Juego de pistón y obturador, sin balance, sin descarga	PS428	PS428
Tazón de policarbonato con drenaje manual	PS404	N/A
Tazón de policarbonato con drenaje automático	PS408B	N/A
Muelles: Rango de 1 a 30 PSIG Rango de 1 a 60 PSIG Rango de 2 a 125 PSIG Rango de 1 a 15 PSIG	P01175 P01174 P01173 P01176	P01175 P01174 P01173 P01176
Tuerza la Perilla del Desaguadero	P05117	

*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.

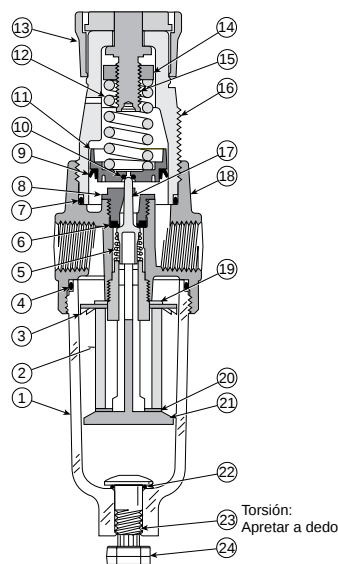


FIGURA 1: Filtro / regulador en miniatura - sin balance, con descarga

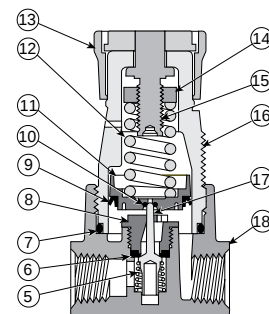


FIGURA 2: Regulador en miniatura - se muestra unidad sin balance, con descarga

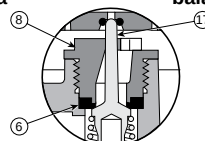


FIGURA 3: Detalle del sello del obturador

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.

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

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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.

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:

	kPa	PSIG	bar
Particulate Filter	70	10	0.7

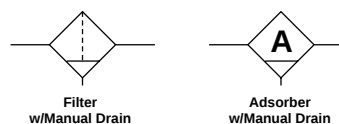
With Polycarbonate Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum	52°C (125°F)		
Operating Temperature Minimum	0°C (32°F)		

With Metal Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum	80°C (175°F)		
Operating Temperature Minimum	0°C (32°F)		

ANSI Symbols



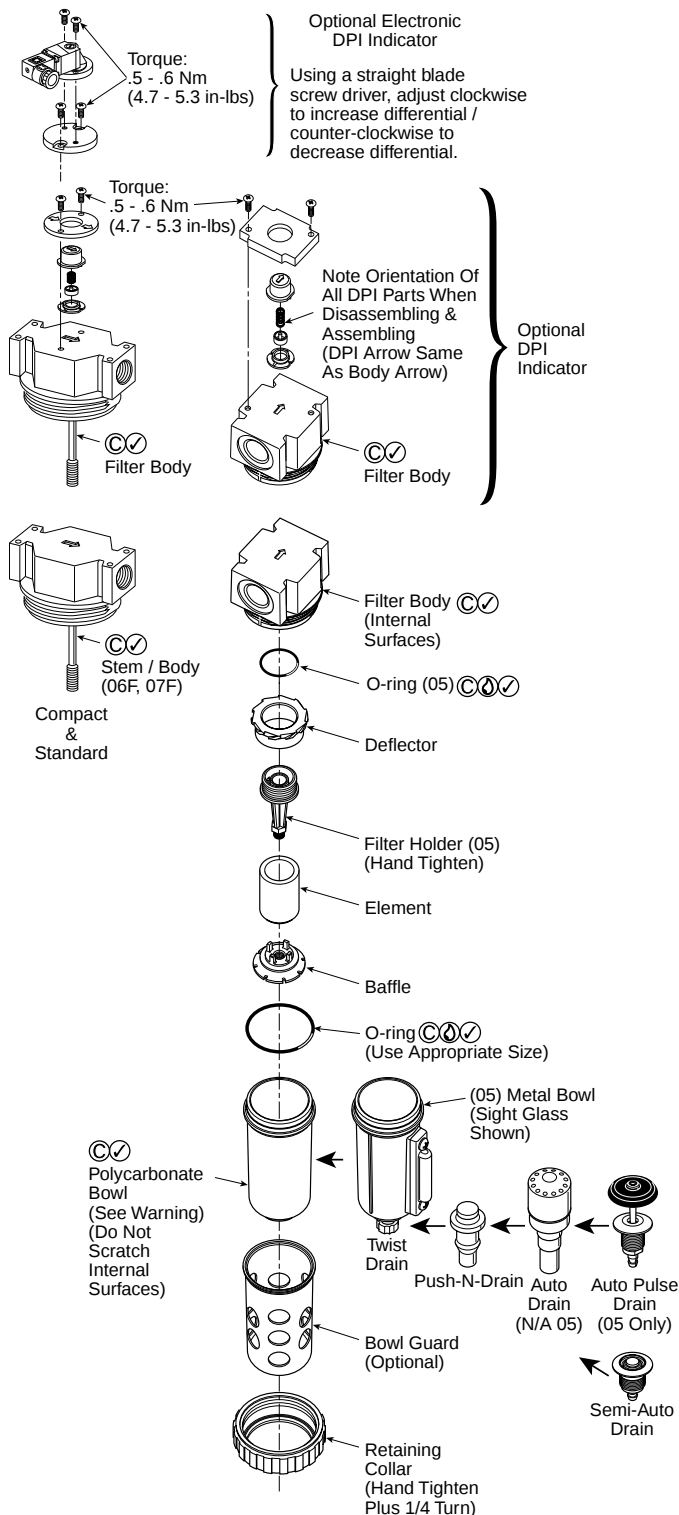
WARNING

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- ① 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.

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 vaporous contaminants. 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 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.

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

Description	05F 1/4" & 3/8"	06F 1/4", 3/8" & 1/2"	07F 3/8", 1/2" & 3/4"
Element Kits*			
5 Micron	PS902	PS702	PS802
40 Micron	PS901	PS701	PS801
Adsorber			
Porous Bronze	PS988	PS788	PS888
DPI Repair Kit	PS781	PS781	PS781
Electronic DPI Kit	PS965	PS764	PS764

*Element kits include body / bowl seal.

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Introduction

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Application Limits

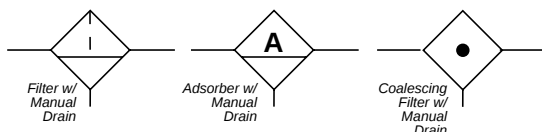
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Maximum Recommended Pressure Drop:

	kPa	PSIG	bar
Particulate Filter	70	10	0.7
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum	80°C (175°F)		
Operating Temperature Minimum	0°C (32°F)		

ANSI Symbols



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 vaporous contaminants. 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 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.

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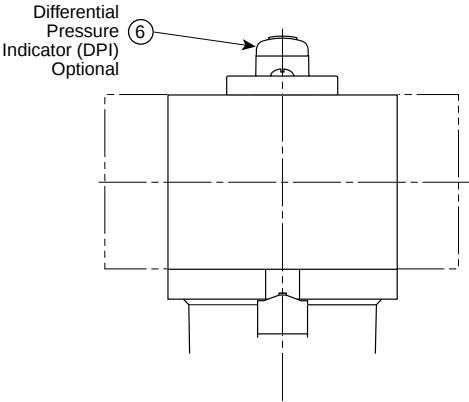
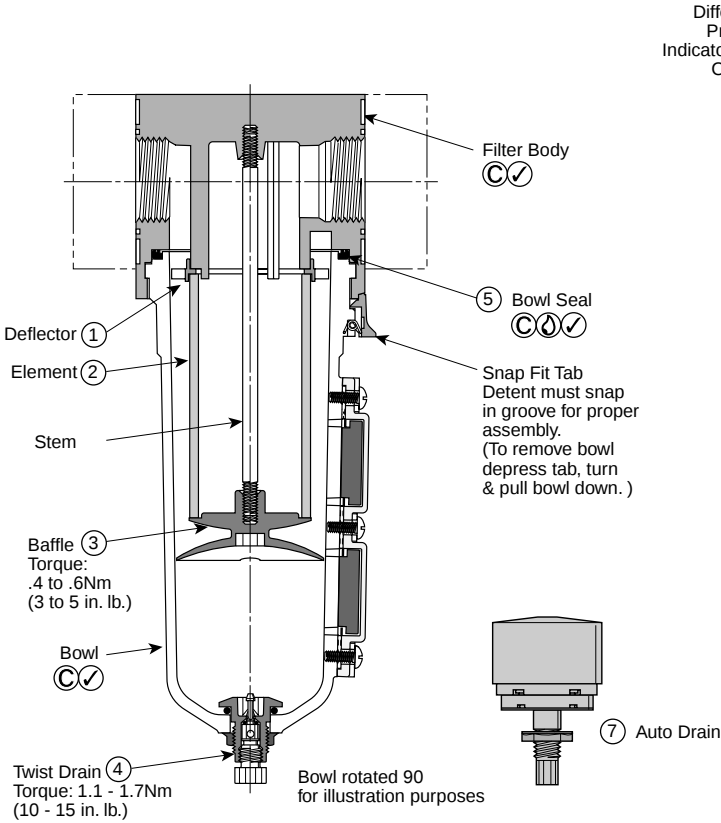
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The most effective method of testing whether an element needs to be replaced is to smell the air coming from the adsorber. Offensive odors will be present well before oil levels become detectable.

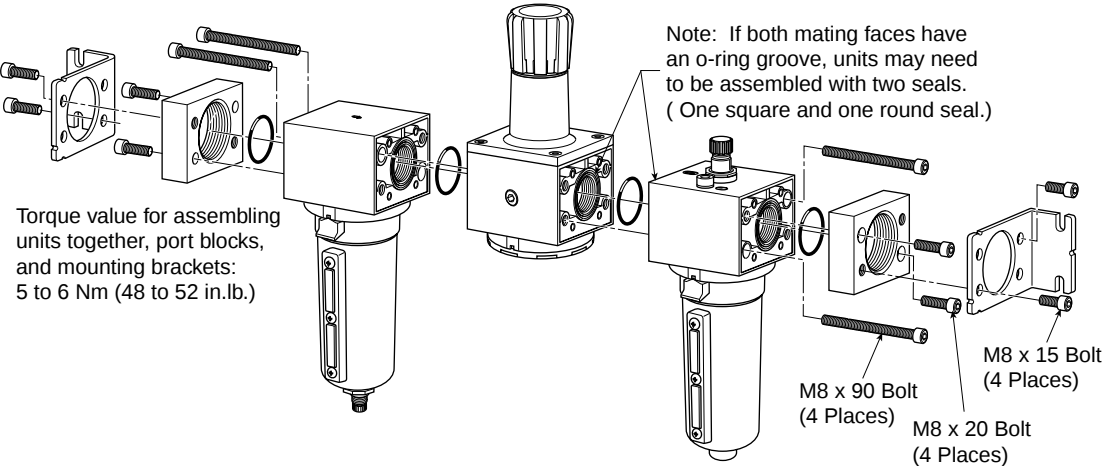
- 4. For Coalescing filter, a 5 micrometer pre-filter is recommended to protect the high efficiency filter and to prolong the elements life.
- 5. The differential pressure indicator, located on top of the filter body, gives a visual indication of the pressure differential across the filter element. Change 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

Description	Kit Number	Contains Items
Element Kits -		(5) Bowl Seal and (2) Element
5 Micron	P3NKA00ESE	
40 Micron	P3NKA00ESG	
Adsorber	P3NKA00ESA	
25 Micron Porous Bronze	P3NKA00ESJ	
Coalescing / Element Grade 6	P3NKA00ESC	(6) DPI components (not all shown)
Coalescing / Element Grade 10	P3NKA00ES9	
DPI Repair Kit	PS781	(7) Auto Drain Assembly
Auto Drain Kit	PS506	



- ① 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.



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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.

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Introduction

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Application Limits

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

With Polycarbonate Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum	52°C (125°F)		
Operating Temperature Minimum	0°C (32°F)		

With Metal Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum	80°C (175°F)		
Operating Temperature Minimum	0°C (32°F)		

05 / 15 Series With Metal Bowl and Auto Drain

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum	80°C (175°F)		
Operating Temperature Minimum	0°C (32°F)		

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

WARNING

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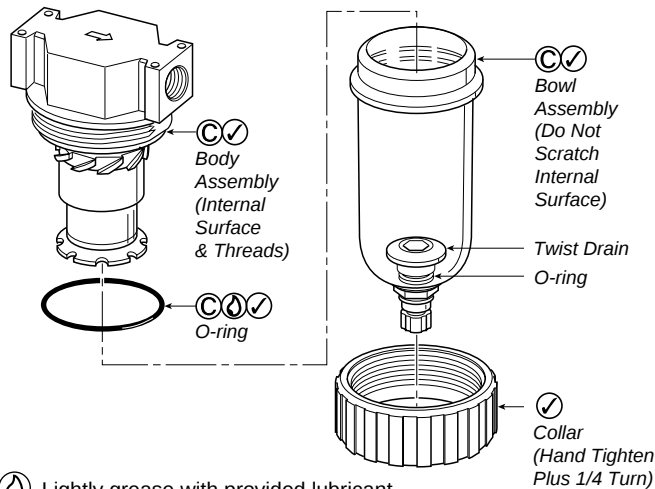
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pressure / temperature rating. Be certain that the circuit and environment does not exceed the lower ratings; and that rating labels elsewhere on the product are replaced with one describing the lower rating. Failure to do so may cause property damage,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

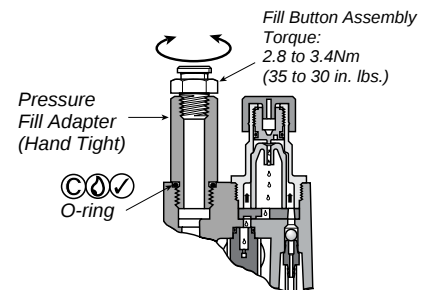
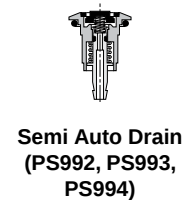
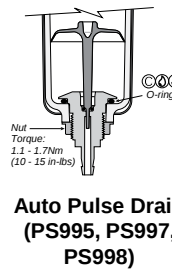
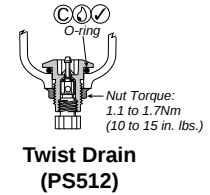
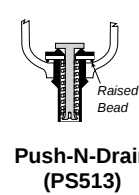
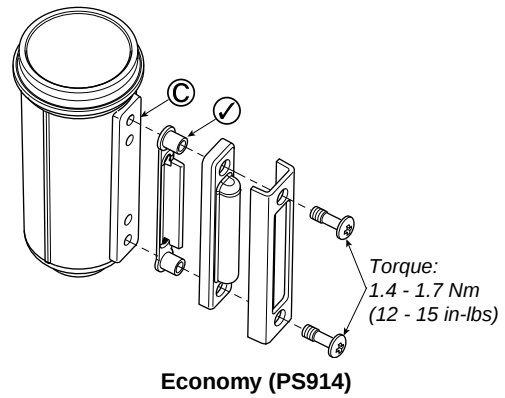
- After installation or service, apply system pressure and check for air leaks. If leakage occurs, **DO NOT OPERATE** — conduct repairs again.



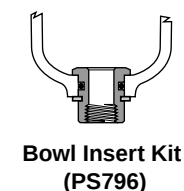
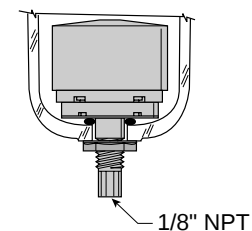
- ① Lightly grease with provided lubricant.
- ✓ Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Ⓒ Clean with lint-free cloth.

Kits Available

Model	Economy Filter	Economy Lubricator	Compact Filter	Compact Lubricator	Standard Filter	Standard Lubricator
Polycarbonate Bowl Kits						
Auto Drain	—	—	PS722	—	PS822	—
Auto Pulse Drain	PS995	—	—	—	—	—
Push "N" Drain	PS904	—	PS704	—	PS804	—
Twist Drain	PS932	PS917	PS732	PS717	PS832	PS817
Semi Auto Drain	PS992	—	—	—	—	—
Pressure Fill	—	PS919	—	PS719	—	PS819
Remote Fill	—	—	—	PS728	—	PS828
No Drain	—	PS946	—	PS746	—	PS846
Metal Bowl Kits						
Auto Drain	—	—	PS726	—	PS826	—
Auto Pulse Drain	PS997	—	—	—	—	—
Push "N" Drain	PS925	—	PS725	—	PS825	—
Twist Drain	PS934	PS933	PS734	PS733	PS834	PS833
Semi Auto Drain	PS994	—	—	—	—	—
Pressure Fill	—	PS927	—	PS727	—	PS827
Sight Gauge & Auto Drain	PS923	—	PS723	—	PS823P	—
Sight Gauge & Twist Drain	PS935	PS929	PS735	PS729	PS835	PS829
Sight Gauge & Push "N" Drain	PS906	—	PS706	—	PS806	—
Sight Gauge & Semi Auto Drain	PS993	—	—	—	—	—
Sight Gauge & Pressure Fill	—	PS920	—	PS720	—	PS820
Drain Kits						
Auto Pulse Drain	PS998	—	—	—	—	—
Push "N" Drain	PS513	PS513	PS513	PS513	PS513	PS513
Twist Drain	PS512	PS512	PS512	PS512	PS512	PS512
Bowl Guard Kit	PS905	PS905	PS705	PS705	PS805	PS805
Bowl Insert Kit	PS796	PS796	PS796	PS796	PS796	PS796
Pressure Fill Adapter Kit	—	PS916	—	PS716	—	PS716
Sight Gauge Kit	PS914	PS914	PS914	PS914	PS914	PS914



Pressure Fill Adapter (PS916, PS716, & PS816)



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Regulator (06/07 Collar)

Maximum Temperature	80°C (175°F)
Minimum Temperature	0°C (32°F)

Metal Bowl (06/07 Collar)

Maximum Temperature	80°C (175°F)
Minimum Temperature	0°C (32°F)

Polycarbonate Bowl (06/07 Collar)

Maximum Temperature	52°C (125°F)
Minimum Temperature	0°C (32°F)

Regulators

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1700	250	17
07 Plastic Collar	Not Used		
07 Metal Collar	Not Used		

Lubricators (Metal Bowl)

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1700	250	17
07 Plastic Collar	Not Used		
07 Metal Collar	1700	250	17

Lubricators (Polycarbonate Bowl)

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1000	150	10.3
07 Plastic Collar	1000	150	10.3
07 Metal Collar	Not Used		

Filters (Metal Bowl)

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1700	250	17
07 Plastic Collar	Not Used		
07 Metal Collar	1700	250	17

Filters (Metal Bowl Plastic DPI Retaining Ring)

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1000	150	10.3
07 Plastic Collar	Not Used		
07 Metal Collar	1000	150	10.3

Filters (Metal Bowl Metal DPI Retaining Ring)

Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1700	250	17
07 Plastic Collar	Not Used		
07 Metal Collar	1700	250	17

Filters (Polycarbonate Bowl)

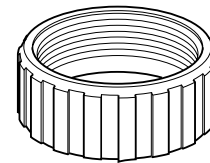
Operating Pressure Maximum	kPa	PSIG	bar
06 Plastic Collar	1000	150	10.3
07 Plastic Collar	1000	150	10.3
07 Metal Collar	Not Used		

Service

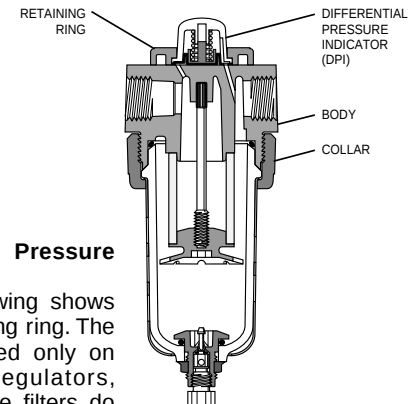
Shut off air supply and depressurize the unit. Loosen and remove the threaded collar. Remove sight gauge when replacing collar used on metal bowl with sight gauge. Install new collar. Secure sight gauge to metal bowl using 1.4 to 1.7 Nm (12 to 15 in. lbs. torque. Tighten 06 filter/lubricator collar 3.2 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

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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.

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, 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 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 or 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

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum		52°C (125°F)	
Operating Temperature Minimum		0°C (32°F)	

With Metal Bowl

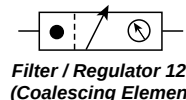
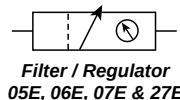
	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum		80°C (175°F)	
Operating Temperature Minimum		0°C (32°F)	

05/15 Series with Metal Bowl and Auto Drain

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum		80°C (175°F)	
Operating Temperature Minimum		0°C (32°F)	

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 clear 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.

⚠ WARNING

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Operation

- 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.
- Manual drain filters must be drained regularly before the separated moisture and oil reaches the bottom of the baffle or end cap.
- The filter element should be removed and replaced when pressure differential across the filter is 69 kPa (10 PSIG).
- 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.
- 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).
- 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.

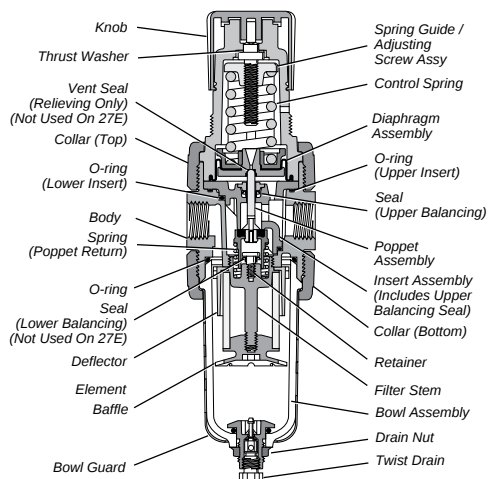
Servicing Filter Element -

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

- Unscrew the bottom threaded collar and remove bowl.
- Unscrew the baffle and then remove element.
- 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.
- Install new element.
- Attach baffle and finger tighten firmly.
- Replace bowl seal. Lightly lubricate new seal to assist with retaining it in position.
- Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

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

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



(06E Shown)

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

Servicing Regulator -

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

- Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
- Remove the bonnet and bowl assemblies by unscrewing the two threaded collars.
- Remove diaphragm assembly from bonnet assembly.
- Remove filter stem, filter element, poppet assembly, poppet return spring, (seat) insert and its o-rings.
- 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.
- Lubricate o-ring and vee packing seals with grease found in service kits.
- 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.
- Install filter element and firmly tighten baffle onto the filter stem.
- 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).
- Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

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

- Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
- Remove the bonnet assembly by unscrewing its threaded collar.
- 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.
- Remove diaphragm assembly from bonnet assembly.
- Remove poppet assembly, poppet return spring, (seat) insert and its o-rings.
- Clean and carefully inspect parts for wear or damage. If replacement is necessary, use parts from service kits.
- Lubricate o-ring and vee packing seals with grease found in service kits.
- Install poppet return spring, poppet assembly, (seat) insert and its o-rings.
- 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).
- Install bottom collar and bowl subassembly into body. Tighten collar hand tight, plus 1/4 turn.

MAINTENANCE SERVICE KITS	05E	06E	07E	12E	27E
Element Kits					
5 Micron	PS902	PS702	PS802	N/A	PS902
40 Micron	PS901	PS701	PS801	N/A	PS901
Grade 6	N/A	N/A	N/A	PS884	N/A
Grade 10	N/A	N/A	N/A	PS885	N/A
Relieving Regulator Repair Kit	PS908	PS710	PS810	PS886	PS907
Non-Relieving Regulator Repair Kit	PS909	PS711	PS811	PS887	N/A

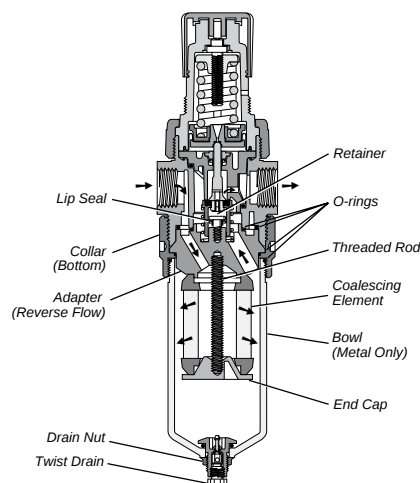


Figure 2: 12E

⚠ WARNING

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- 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.

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Introduction

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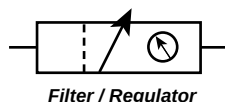
Application Limits

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

	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum		80°C (175°F)	
Operating Temperature Minimum		0°C (32°F)	

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 clear 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).
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Service

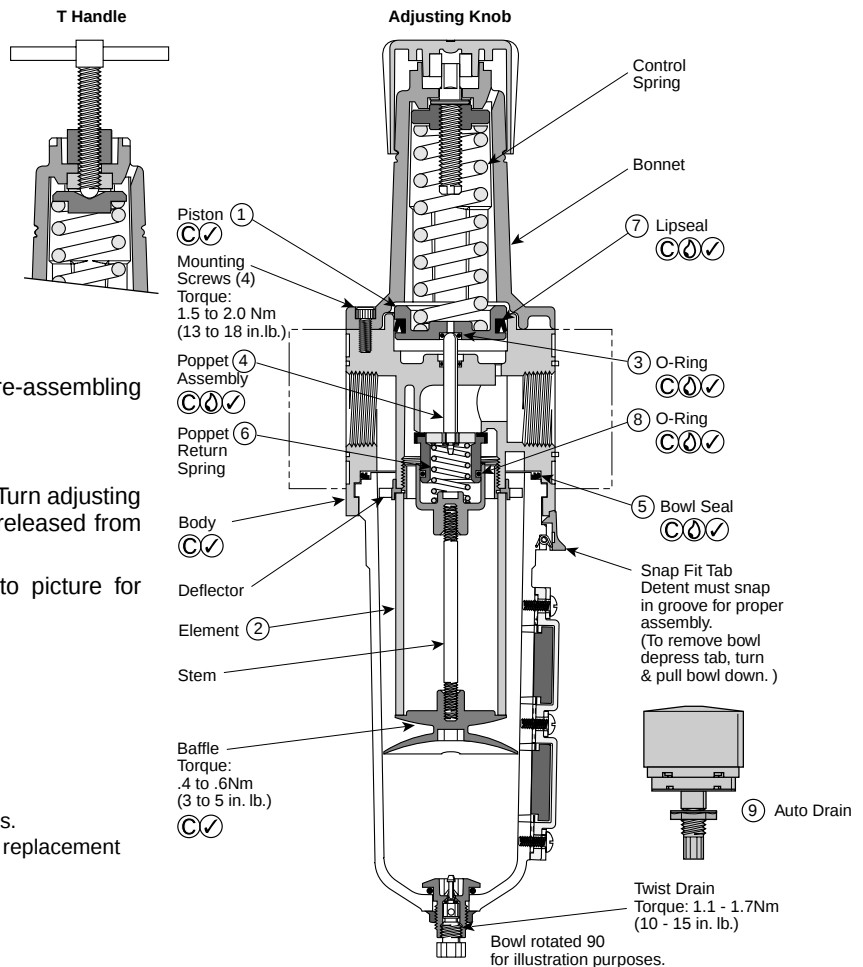
⚠ Caution: Disconnect or shut off air supply and exhaust the primary and secondary pressures before servicing unit. Turning the adjusting knob counterclockwise does not vent downstream pressure on non-relieving regulators. Downstream pressure must be vented before servicing regulator.

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.

Service Kits Available

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



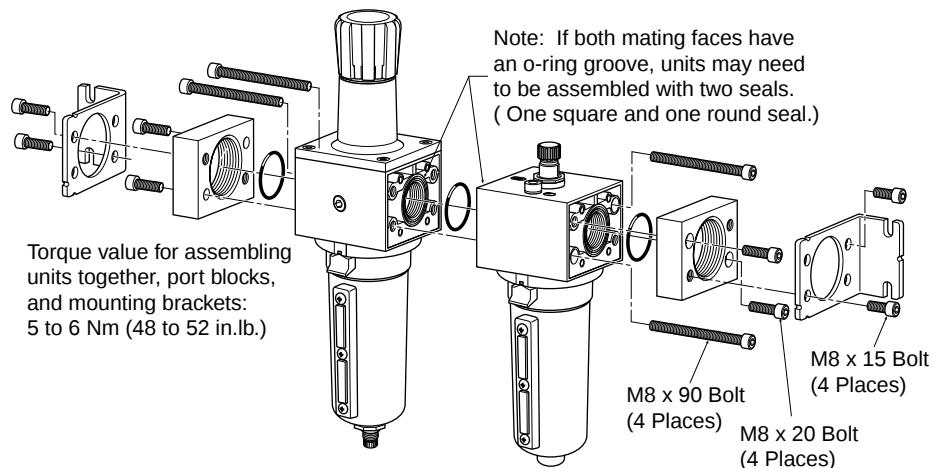
Servicing Filter Element

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.

- (A) 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.
- (C) Clean with lint-free cloth.



Pneumatic Division
Richland, Michigan 49083
269-629-5000

Installation & Service Instructions:
2L101E

1/4" & 3/8" 15L Economy
1/4", 3/8" & 1/2" 06L, 16L Compact
3/8", 1/2" & 3/4" 07L, 17L Standard
Mist & Micromist Lubricators

ISSUED: September 2006
Supersedes: November, 2003

Doc. #2L101, ECN# 060870, Rev. 8

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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.
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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

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Introduction

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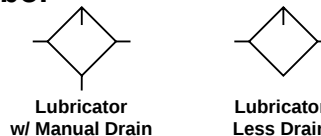
With Polycarbonate Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1000	150	10.3
Operating Temperature Maximum	52°C (125°F)		
Operating Temperature Minimum	0°C (32°F)		

With Metal Bowl

	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0
Operating Temperature Maximum	80°C (175°F)		
Operating Temperature Minimum	0°C (32°F)		

ANSI Symbol



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.).

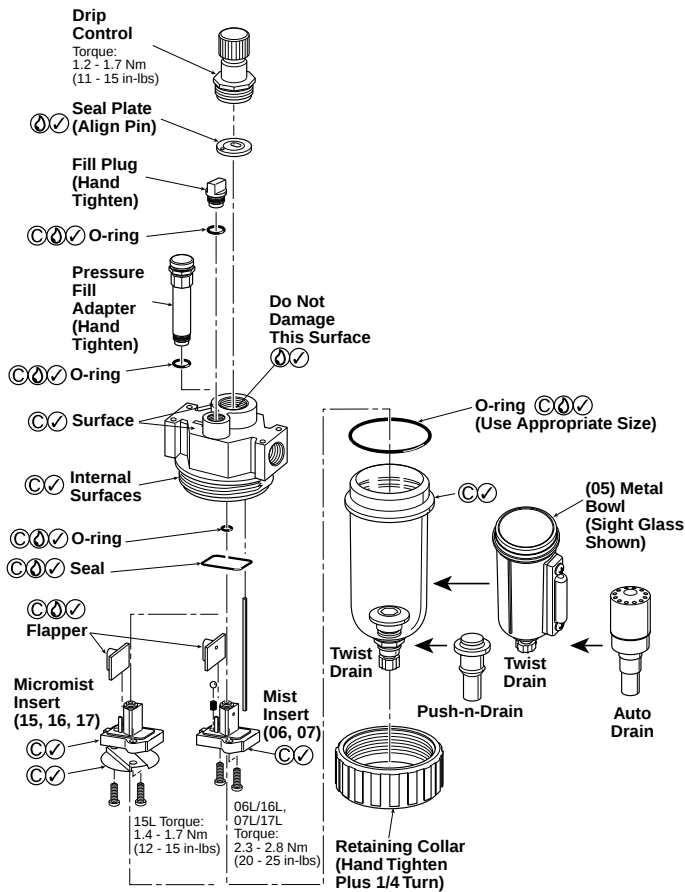
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- ① Lightly grease with provided lubricant.
- ✓ Inspect for nicks, scratches, and surface imperfections. If present, reduced service life is probable and future replacement should be planned.
- Ⓒ Clean with lint-free cloth.

Operation and Service
(Refer to Above Pictorial)

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

The inlet pressure of the Micromist lubricator must be turned off and depressurized before the fill plug (yellow) is removed. Turn counterclockwise to remove. Fill to oil level line.

Suggested lubricant: F442

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F. (Mobil DTE24 and Sun Company Sunvis 932 are good examples). Do not use oils with adhesives, compound oils containing solvents, graphite, detergents or synthetic oils.
2. Replace the fill plug (by turning clockwise) and seat firmly. Excessive torque is not required. Turn on air supply for Micromist type. 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.

Leaner — Clockwise
Richer — Counterclockwise

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

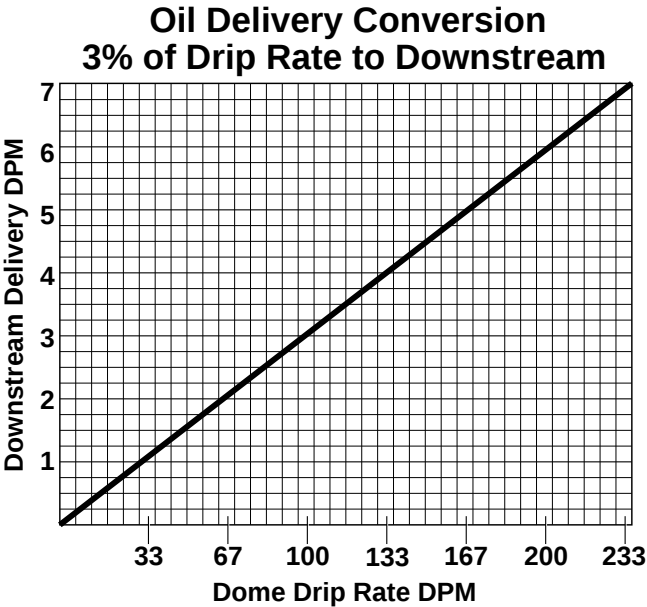
Mist lubricator — Every drop visible in the sight dome goes downstream.

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.



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

Description	15L 1/4" & 3/8"	Mist 06L / 07L 1/4", 3/8" & 1/2"	Micromist 16L / 17L 3/8", 1/2" & 3/4"
Lubricator Repair Kit	PS918	PS718	PS748
Drip Control (Polycarbonate) and Fill Plug Kit	PS938	PS738	PS739
Drip Control (Nylon) and Fill Plug Kit	PS938N	PS738N	PS739N

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.

⚠ 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

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.

	kPa	PSIG	bar
Operating Pressure Maximum	1700	250	17.0

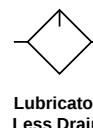
Operating Temperature Maximum

80°C (175°F)

Operating Temperature Minimum

0°C (32°F)

ANSI Symbol



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 counterclockwise. This allows the bowl pressure to vent.

Suggested lubricant: F442

Petroleum based oil of 100 to 200 SUS viscosity at 100°F and an aniline point greater than 200°F. (Mobil DTE24 and Sun Company Sunvis 932 are good examples). Do not use oils with adhesives, compound oils containing solvents, graphite, detergents or synthetic oils.

2. Replace the fill plug (by turning clockwise) and seat firmly. 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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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.

2L300C

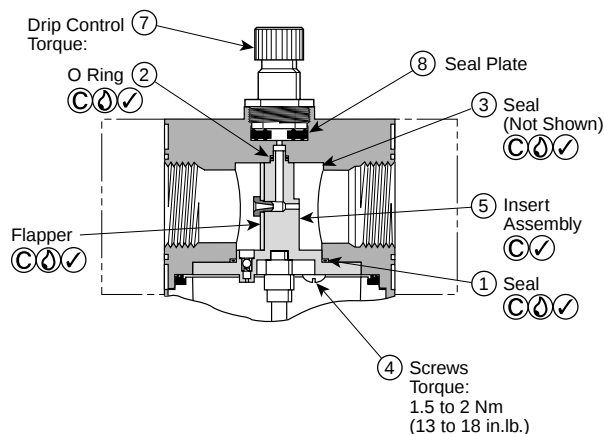
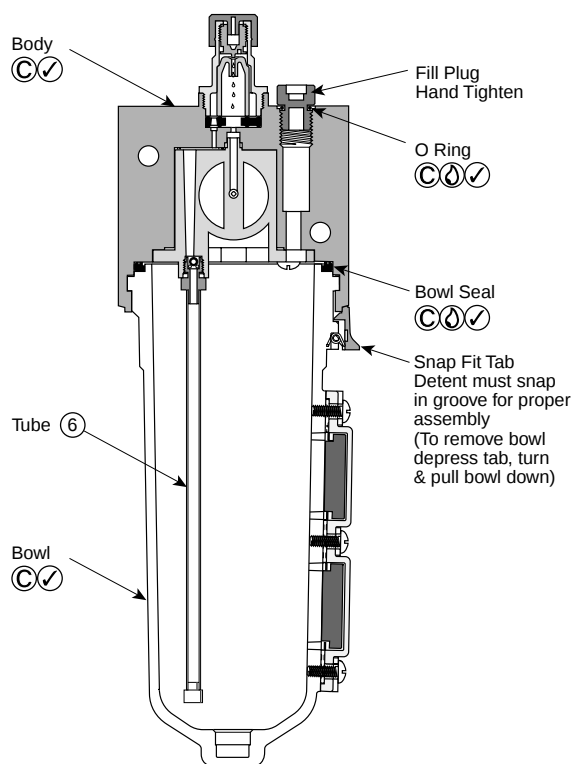
NOTE: This is a constant density type lubricator which delivers a constant ratio of oil air flow. Therefore, if air flow increases or decreases, oil delivery will be adjusted proportionately. **ONLY IF A DIFFERENT RATIO IS DESIRED SHOULD YOUR ADJUSTMENT KNOB SETTING BE CHANGED AFTER YOUR INITIAL SETTING.**

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.

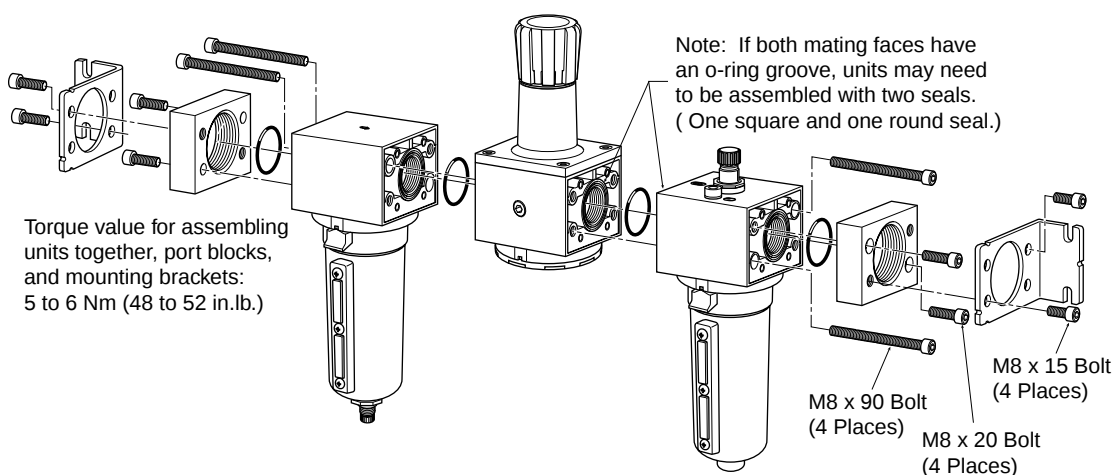
C. Turn on air supply and check lubricator for leakage. If leakage occurs, **DO NOT OPERATE** — conduct repairs again.



Service Kits Available

Description	Kit Number	Contains Items
Lubricator Repair Kit	P3NKA00RL	(1) Seal, (2) O-Ring, (3) Seal (Not Shown), (4) Screws, (5) Insert Assembly (Including Flapper), and (6) Tube
Sight Dome / Drip Control (Polycarbonate)	PS740	(7) Drip Control, (8) Seal Plate
Sight Dome / Drip Control (Polyamide / Nylon)	PS740N	

- ① 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.



⚠ WARNING

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- 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.

⚠ WARNING

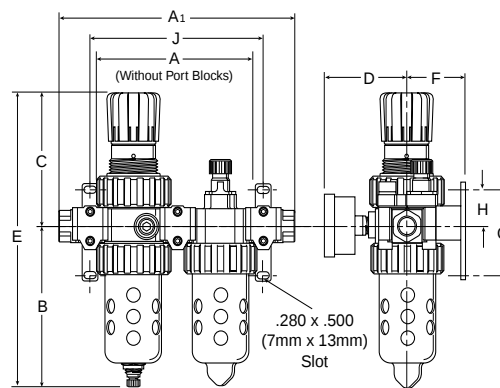
To avoid polycarbonate bowl rupture that can cause personal injury or property damage, do not exceed bowl pressure or temperature ratings. Polycarbonate bowls have a 150 PSIG pressure rating and a maximum temperature rating of 125°F.

Safety Guide

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Introduction

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



05 Series

A	A ₁	B	C	D	E
4.33 (110)	6.38 (162)	5.35 (136)	3.15 (80)	2.05 (52)	8.50 (216)
F	G	H	J		
1.45 (37)	2.60 (66)	1.14 (29)	4.72 (120)		

06 Series

A	A ₁	B	C	D	E
6.10 (155)	9.04 (230)	5.69 (145)	4.69 (119)	3.18 (81)	10.38 (264)
F	G	H	J		
2.00 (51)	3.58 (91)	1.40 (36)	6.65 (169)		

07 Series

A	A ₁	B	C	D	E
7.00 (178)	10.28 (261)	6.97 (177)	4.79 (122)	3.44 (87)	11.76 (299)
F	G	H	J		
2.18 (55)	3.58 (91)	1.40 (36)	7.51 (191)		

Inches (mm)

- All dimensions nominal.

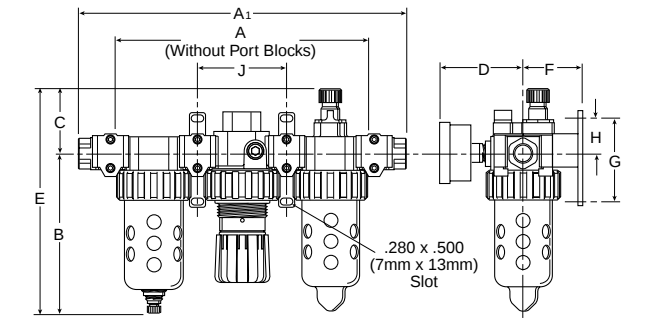
⚠ WARNING

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05 Series					
A 6.70 (170)	A1 8.72 (222)	B 5.35 (136)	C 2.24 (57)	D 2.05 (52)	E 7.59 (193)
F 1.45 (37)	G 2.60 (66)	H 1.14 (29)	J 2.35 (600)		
06 Series					
A 9.46 (240)	A1 12.39 (315)	B 5.69 (145)	C 2.24 (57)	D 3.18 (81)	E 7.82 (199)
F 2.00 (51)	G 3.58 (91)	H 1.40 (36)	J 3.33 (85)		
07 Series					
A 10.750 (273)	A1 14.03 (356)	B 6.97 (177)	C 2.41 (61)	D 3.44 (87)	E 9.27 (235)
F 2.18 (55)	G 3.58 (91)	H 1.40 (36)	J 3.76 (95)		

Inches (mm)
• All dimensions nominal.

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.

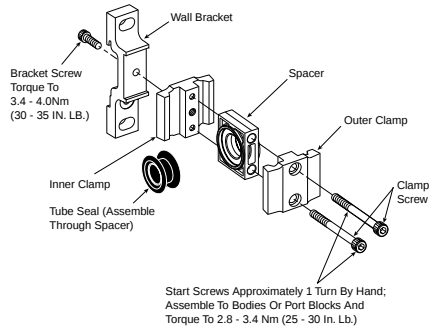


Figure 1 (05 Series)

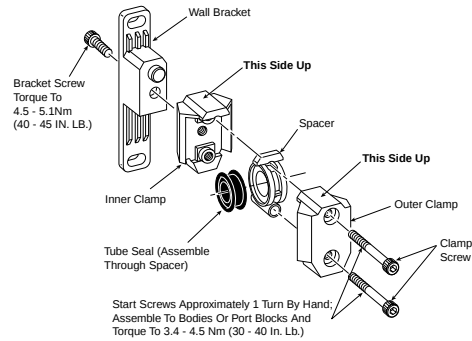


Figure 2 (06-07 Series)

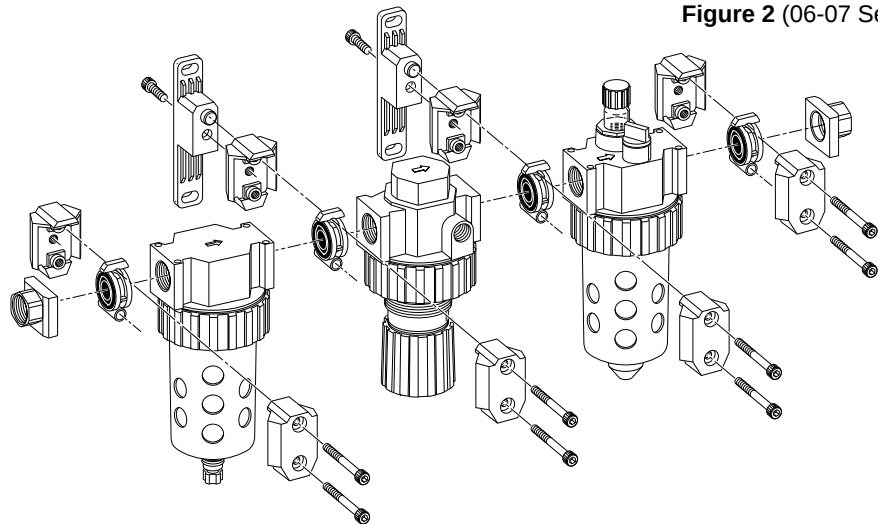


Figure 3 (06-07 Series)

⚠ 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.

Introduction:

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

Application Limits

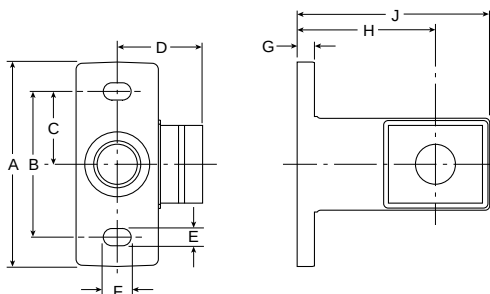
These products are intended for use in general purpose compressed air systems only.

Operating Pressure:

	kPa	PSIG	bar
Maximum Inlet Pressure:	1700	250	17

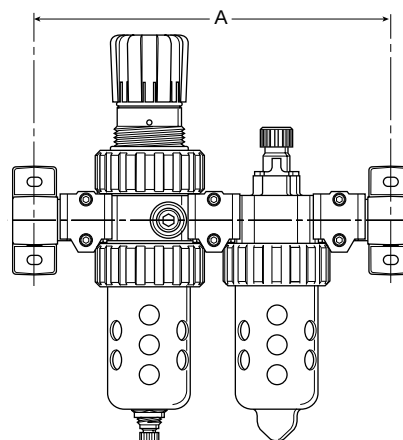
Operating Temperature:

Maximum Temperature	80°C (175°F)
Minimum Temperature	0°C (32°F)

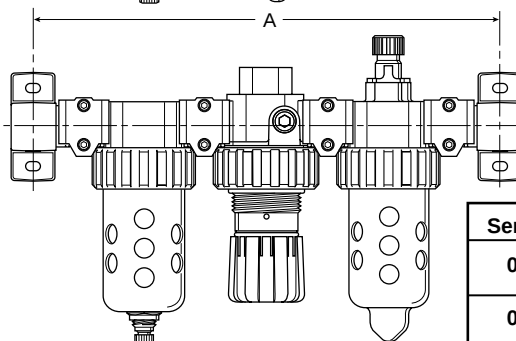


Right Angle Bracket Dimensions

Series	A	B	C	D	E	F	G	H	J
05	2.83	2.28	1.14	1.16	.28	.43	.28	1.49	2.31
	72.0 mm	58.0 mm	29.0 mm	29.5 mm	7.0 mm	11.0 mm	7.0 mm	37.8 mm	58.8 mm
06	2.96	2.11	1.05	1.23	.27	.42	.25	2.00	2.74
	75.2 mm	53.6 mm	26.8 mm	31.4 mm	6.8 mm	10.6 mm	6.4 mm	50.8 mm	69.6 mm
07	3.22	2.37	1.17	1.32	.27	.42	.25	2.12	3.00
	81.8 mm	60.3 mm	29.8 mm	33.5 mm	6.8 mm	10.6 mm	6.4 mm	53.8 mm	76.2 mm



Series	A
05	6.7 170 mm
06	9.7 246 mm
07	10.7 272 mm



Series	A
05	9.0 229 mm
06	13.0 330 mm
07	14.4 366 mm

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.

⚠ WARNING

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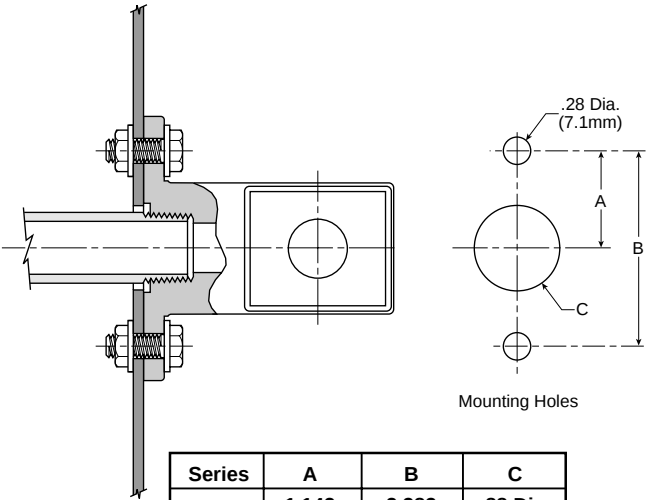
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Direct Piped Method

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.

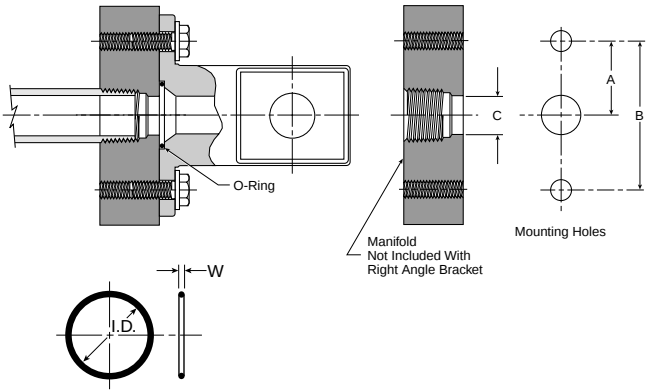


Series	A	B	C
05	1.142 29.0 mm	2.383 58.0 mm	.88 Dia. 22.4 mm
06	1.055 26.8 mm	2.110 53.6 mm	.88 Dia. 22.4 mm
07	2.375 60.3 mm	1.173 29.8 mm	1.00 Dia. 25.4 mm

Direct Pipe Ported Method

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.



O-Ring Details

Series	I.D. (Inch)	W (Inch)
05 & 06	.737	.103
07	.862	.103

Series	A	B	C
05	1.142 29.0 mm	2.383 58.0 mm	.50 Dia. 12.7 mm
06	1.055 26.8 mm	2.110 53.6 mm	.50 Dia. 12.7 mm
07	2.375 60.3 mm	1.173 29.8 mm	.63 Dia. 16.0 mm

Manifold Mounting Method

⚠ WARNING

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- 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

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Introduction

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Application Limits

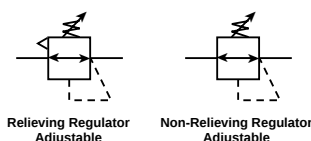
These products are intended for use in general purpose compressed air systems only.

Operating Pressure:

	kPa	psig	bar
Maximum Inlet Pressure	1720	250	17.2

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

Symbols



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 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, 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.)

⚠ CAUTION:

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

⚠ WARNING

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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.

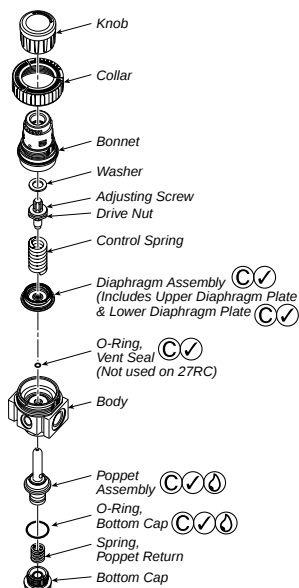
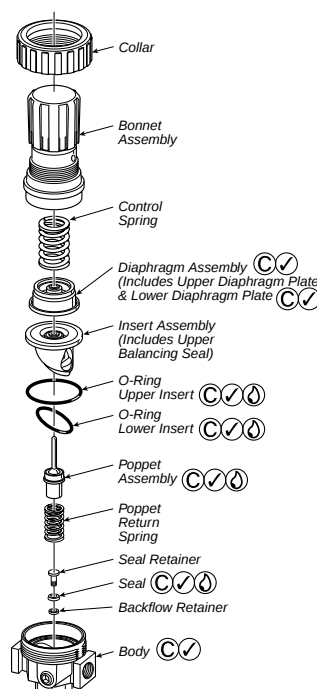
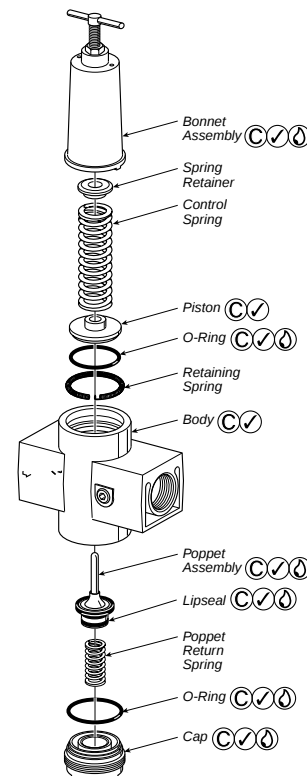
B. Servicing the Piston and/or Control Springs-

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.

- ① 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.

**Figure 1: Economy & Precision****Figure 2: Compact & Standard****Figure 3: Hi-Flow**

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

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

Service Kits Available

	Economy	Precision	Compact	Standard	Hi-Flow
Regulator (Standard) Repair Kit (Relieving)	PS908	PS907	PS708	PS808	N/A
Regulator (Reverse Flow) Repair Kit (Relieving)	N/A	N/A	PS708R	PS808R	N/A
Regulator (Standard) Repair Kit (Non-Relieving)	PS909	N/A	PS709	PS809	N/A
Regulator (Reverse Flow) Repair Kit (Non-Relieving)	N/A	N/A	PS709R	PS809R	N/A
Seat Insert Repair Kit (Standard)	N/A	N/A	PS713	PS813	N/A
Seat Insert Repair Kit (Reverse Flow)	N/A	N/A	PS813	N/A	N/A
Bonnet Assembly	PS915	N/A	PS715	PS715	N/A
Air Pilot Conversion (Non-Relieving)	PS944	N/A	PS744	PS744	N/A
Air Pilot Conversion (Relieving)	PS945	N/A	PS745	PS745	N/A
Mounting Bracket Kit	PS963	PS963	PS707	PS807	PS309
Relieving Piston Kit	N/A	N/A	N/A	N/A	PS310
Non-Relieving Piston Kit	N/A	N/A	N/A	N/A	PS311
Body Service Kit (Balanced Poppet)	N/A	N/A	N/A	N/A	PS312B
Gauges: Low Pressure 0 to 410 kPa (0 to 60 psig)	K4515N14060		K4520N14060		
Standard Pressure 0 to 1100 kPa (0 to 160 psig)	K4515N14160		K4520N14160		
High Pressure 0 to 2070 kPa (0 to 300 psig)	K4515N14300		K4520N14300		

⚠ 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

Introduction

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

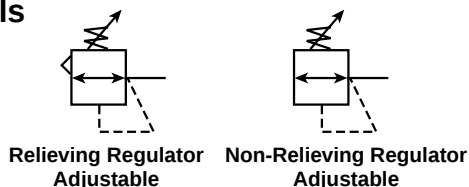
Application Limits

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

Operating Pressure:

	kPa	PSIG	bar
Maximum Inlet Pressure	1720	250	17.2
Ambient Temperature Range:	0°C to 80°C (32°F to 175°F)		

Symbols



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.

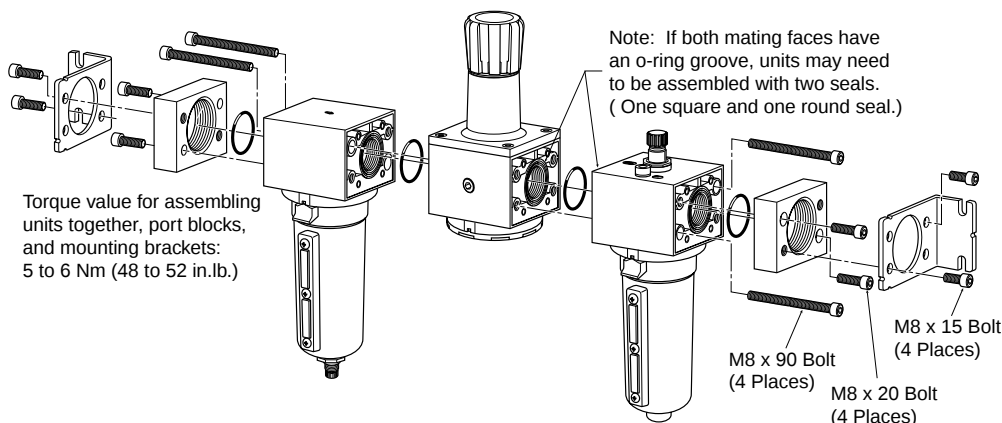
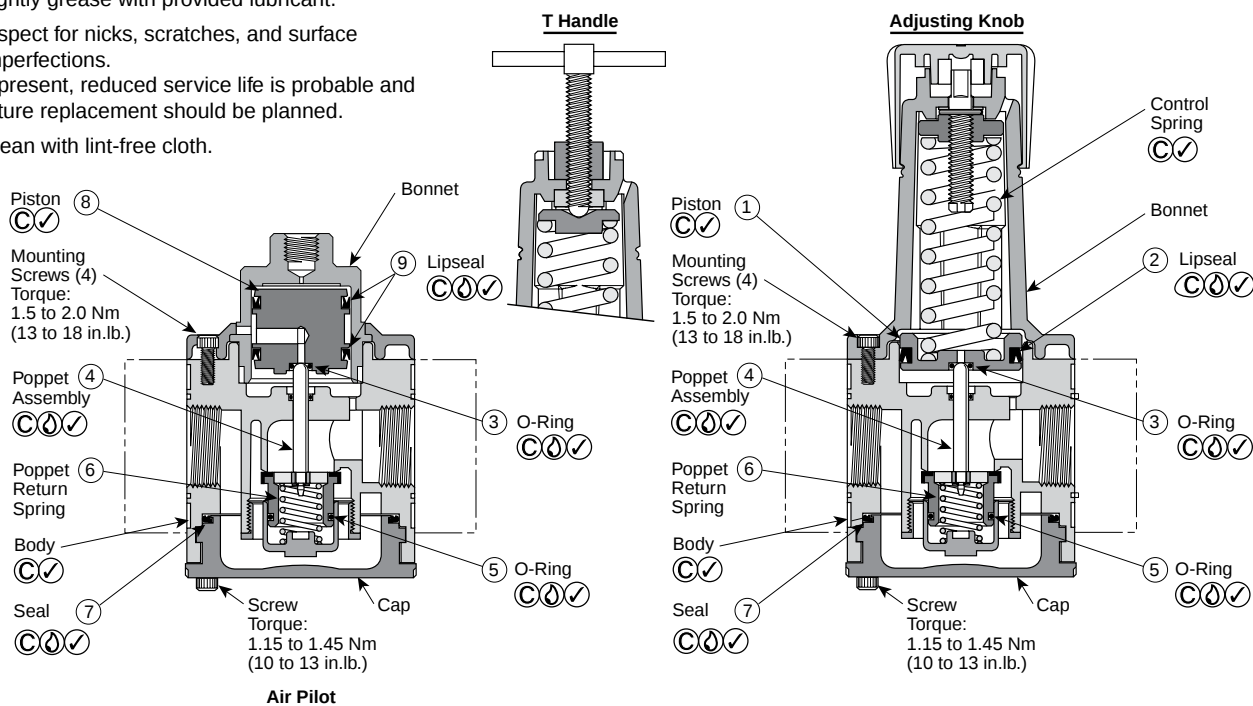
Ⓒ Clean with lint-free cloth.

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

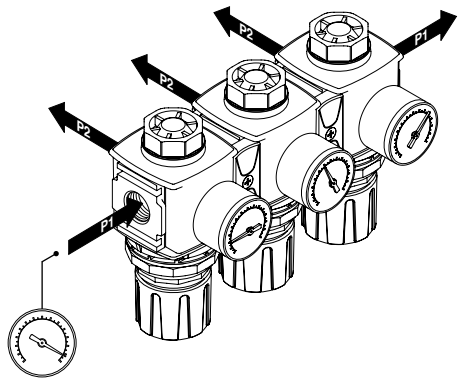
If you have questions concerning how to service this unit, contact your local authorized dealer or your customer service representative.

Service Kits Available

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

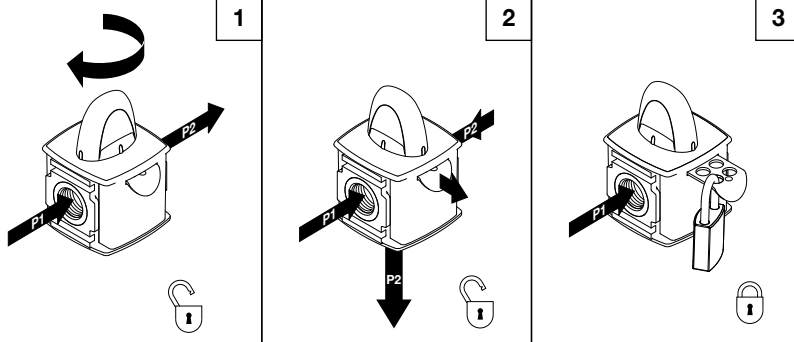


- UK Common Ported Regulators DE Regler mit allgemeinen Anschlüssen KR 공통급기 레귤레이터
CN 汇流型减压阀 IT Regolatori con porte comuni ES Reguladores de boca común
FR Régulateurs à orifices communs JP 共通ポートレギュレータ SE Sammanbyggda regulatorer

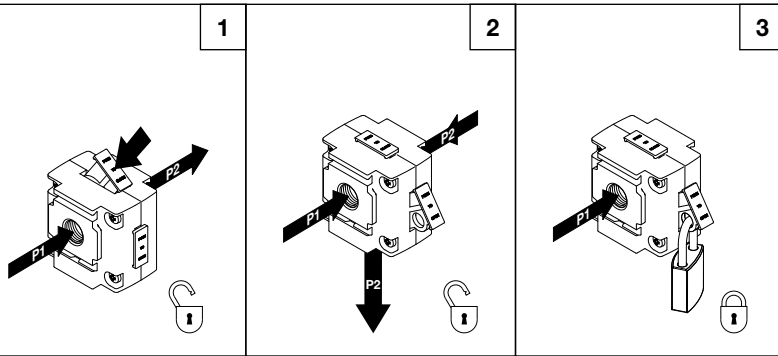


- UK Safety Lockout Valves DE Sicherheitsabschaltventile KR 안전 잠금 배기밸브
CN 可锁定安全阀 IT Valvole di bloccaggio di sicurezza ES Válvulas de bloqueo - seguridad
FR Distributeurs verrouillables JP セーフティロックアウトバルブ SE S kerhetsavst ngningsventiler

- UK Ball Valve CN 球阀
FR Vanne   boisseau DE Kugelventil
IT Valvola a sfera JP ボールバルブ
KR 볼밸브 ES V lvula de bola SE Kulventil



- UK Slide Valve CN 截止阀
FR Tiroir DE Schieberventil
IT Valvola scorrevole JP スライドバルブ
KR 슬라이드밸브 ES V lvula de corredera SE Slidventil



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WARNING

To avoid unpredictable system behaviour that can cause personal injury and proper 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.
- Warning 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

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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.

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.

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 ratings. Polycarbonate bowls have a 150 PSIG (10 bar) pressure rating and a maximum temperature rating of 125°F (52°C).

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

Global Air Preparation System



警告

为避免不可预测的系统运作而导致人身伤害和财产损失：

- 安装、维修和改动前必须断开电源供应；
- 安装、维修和改动前必须断开气源供应，释放连接该产品的管路压力；
- 必须在厂商所指定的压力、温度和其他使用说明书中注明的环境条件下操作使用；
- 在环境温度低于零下时介质必须是无油的；
- 根据使用说明书中厂商推荐的程序保养；
- 必须由气动专业人士来安装、维护和改动产品；
- 安装、维修、改动后，气源和电气需要连接，并测试产品功能及是否有泄漏。如果有可听见的泄漏声或操作不正确，不可投入使用；
- 产品上的警告和说明不能被油漆等覆盖。如果标签不清晰，请联系相关人员更换标签。

警告

错误或者不正确地选择和使用产品以及错误地描述相关产品信息有可能会致人死亡，人身伤害和财产损失。

这个文件和另外的信息来自公司总部，它是给分销商补充和授权产品或者系统的选项，是给用户调查研究用的技术资料。分析你的所有应用，包括任何一旦发生错误的后果并在现有的产品目录中阅读相关产品或系统信息，对于您来说都是非常有必要的。由于操作环境和产品或系统的使用是多样性的，用户通过自己的分析和测试，对最终产品和系统选择负有绝对责任，并确保所有产品的性能、安全和应用时需要注意的问题都已满足。

这里提到的产品，包括无限制性，产品特性，说明书，设计，实用性等的价格可由公司总部及其下属公司在没有通知的情况下改变。

注意

碳酸聚酯水杯是透明坚固的，是过滤器和油雾器的理想选择。适合一般工业环境应用，但是不适用于那些阳光直射，冲击和外温差大的场合。因为含有大量塑料，某些化学物质会损伤水杯。碳酸聚酯水杯不能暴露于碳氢化合物，酮，酯和某些酒精。此类杯体不能应用于被防火型液体，如，碳酸酯和二胺类润滑过的空压机的气动系统中。

在那些不适合碳酸聚酯水杯的环境中，推荐使用金属水杯。金属水杯能抵抗大多数溶解剂，但是不能用在强酸，食盐的场合。对于特殊场合请咨询工厂。

只能使用温和肥皂水清洗碳酸聚酯水杯。不能使用丙酮，苯，四氯化碳，汽油，甲苯等清洁剂，这会直接损害塑料。

安全指南

更多完整的推荐应用指导信息，请见气动样本中的安全指南部分或者可以在气动部门安全指南网站上下载资料：www.parker.com/safety

警告

为了避免碳酸聚酯水杯破裂而导致的人身或财产损失，不能使用超过水杯的压力和温度范围。碳酸聚酯水杯最高承受 150 PSIG (10bar) 压力和最高 125°F (52°C) 的温度。

如需多份涉及这些产品维修/操作指南的使用说明书。请联系当地办事处。

MISE EN GARDE

Afin de pr venir tout comportement impr visible du syst me pouvant entra ner des accidents et des dommages mat riels :

- D brancher l'alimentation  lectrique (s'il y a lieu) avant de proc der   l'installation,   l'entretien ou   la transformation.
- D brancher l'approvisionnement en air et mettre hors pression toutes les conduites d'air de ce produit avant de proc der   l'installation,   l'entretien ou   la transformation.
- Faire fonctionner dans les conditions de pression, de temp rature et autres qui sont indiqu es dans ces instructions.
- Si la temp rature ambiante est inf rieure au point de cong lation, le fluide doit  tre exempt d'humidit .
- Effectuer l'entretien conform ment aux proc dures qui sont indiqu es dans ces instructions.
- L'installation, l'entretien et la transformation de ces produits doivent  tre effectu es par des personnes familiaris es avec les produits pneumatiques.
- Apr s l'installation, l'entretien ou la transformation, r tablir l'alimentation  lectrique ainsi que l'approvisionnement en air (s'il y a lieu) et tester le produit afin de s'assurer qu'il fonctionne bien et qu'il n'y a pas de fuites. Si une fuite s'entend ou si le produit ne fonctionne pas correctement, ne pas le mettre en service.
- Les mises en garde et les indications port es sur le produit ne doivent pas  tre recouvertes par de la peinture, etc. Si le masquage n'est pas possible, contacter le repr sentant local pour obtenir des  tiquettes de remplacement.
- Les mises en garde et les indications port es sur le produit ne doivent pas  tre recouvertes par de la peinture, etc. Si le masquage n'est pas possible, contacter le repr sentant local pour obtenir des  tiquettes de remplacement.

MISE EN GARDE

LA NON OBSERVATION D'INSTRUCTIONS OU LA S LECTION IMPROPRE OU L'USAGE INAPPROPRI  DES PRODUITS ET/OU DES SYST MES D CRITS AUX PR SENTES, OU ARTICLES CONNEXES, PEUVENT ENTRA NER LA MORT, DES PR JUDICES CORPORELS ET/OU DES DOMMAGES MAT RIELS.

Le pr sent document et toute autre information provenant de la Soci t , de ses filiales et distributeurs agr  s se r f rent   des produits et/ou des syst mes pouvant faire l'objet de tests et de contr les de la part d'utilisateurs comp tents, poss dant une expertise technique. Il est important que vous analysiez tous les aspects de votre application, notamment les cons quences d'une d faillance, et  tudiez les informations concernant le produit ou les syst mes qui figurent dans ce catalogue actuel. Compte tenu de la vari t  des conditions d'exploitation et des applications inh rentes   ces produits et/ou syst mes, l'utilisateur est, par le biais de ses propres analyses et tests, seul responsable de la s lection finale des produits et/ou syst mes et s'engage   ce que son application r ponde   tous les crit res relatifs aux performances,   la s curit  et aux mises en garde.

Les produits d crits aux pr sentes, y compris et sans limitation, les caract ristiques, les sp cifications, les conceptions, la disponibilit  et les prix, peuvent faire l'objet de modifications par la Soci t  et ses filiales,   tout moment et sans pr avis.

ATTENTION

Durs et transparents, les bols en polycarbonates sont parfaitement indiqu s pour l'utilisation dans les filtres et les lubrificateurs. Ils sont compatibles avec les milieux industriels normaux mais ne doivent pas  tre plac s dans des lieux o  ils pourraient  tre expos s   la lumi re directe du soleil,   des chocs ou   des temp ratures situ es en-dehors de leur plage d'utilisation nominale. Comme la plupart des plastiques, cette mati re peut  tre endommag e par certains produits chimiques. Les bols en polycarbonate ne doivent pas  tre expos s aux hydrocarbures chlor s, aux c tones, aux  thers et   certains alcools. Ils ne doivent pas  tre utilis s dans des syst mes pneumatiques dont les compresseurs sont lubrifi s par des fluides r sistant au feu tels que les esters et diesters de phosphate.

Les bols m talliques sont recommand s lorsque le milieu et/ou le fluide sont incompatibles avec les bols en polycarbonates. Les bols m talliques sont r sistants   la plupart de ces solvants mais ne doivent pas  tre utilis s en milieu fortement acide ou basique, ou en atmosph re sal e. Si de telles conditions pr valent, adressez-vous au fabricant afin d'obtenir des recommandations sp cifiques.

NETTOYER LES BOLS EN POLYCARBONATE UNIQUEMENT   L'EAU ET AU SAVON DOUX ! NE PAS utiliser d'agents nettoyants tels que l'ac t ne, le benz ne, le t trachlorure de carbone, l'essence, le tolu ne, etc., qui endommageraient ce plastique.

Guide de s curit 

Pour obtenir de plus amples informations sur les directives   appliquer recommand es, pri re de vous reporter   la section Guide de s curit  de catalogues de la Pneumatic Division ou de t l charger le Guide de s curit  de la Pneumatic Division sur le site : www.parker.com/safety

MISE EN GARDE

Pour  viter que le bol de polycarbonate se rompe et provoque des pr judices corporels ou des dommages mat riels, ne pas d passer les limites maximales de pression et de temp rature,   savoir 150 PSIG (10 bar) et 125  F (52 C).

DES EXEMPLAIRES DE CES INSTRUCTIONS SONT DISPONIBLES POUR INSERTION DANS LE MAT RIEL OU LES MANUELS D'ENTRETIEN QUI UTILISENT CES PRODUITS. VEUILLEZ CONTACTER VOTRE REPR SENTANT LOCAL.

DE **WARNUNG**

Als Schutz vor unvorhersehbarem Systemverhalten, das zu Verletzungen und Sachschäden führen kann, sind folgende Maßnahmen zu ergreifen:

- Vor Einbau, Servicearbeiten oder Umbau gegebenenfalls die Stromversorgung unterbrechen.
- Vor Einbau, Servicearbeiten oder Umbau die Druckluftversorgung unterbrechen und alle an das Produkt angeschlossenen Luftleitungen vom Druck befreien.
- Im Betrieb sind die vom Hersteller angegebenen Druck- und Temperaturbereiche und die übrigen in der Betriebsanleitung aufgeführten Betriebsbedingungen einzuhalten.
- Das Betriebsmedium muss bei Umgebungstemperaturen unter dem Gefrierpunkt absolut trocken sein.
- Servicearbeiten sind gemäß den in diesem Handbuch aufgeführten Vorgehensweisen durchzuführen.
- Einbau, Servicearbeiten und Umbau dieser Produkte dürfen nur von geschulten Mitarbeitern vorgenommen werden, die über gute Kenntnisse beim Einsatz von Pneumatikprodukten verfügen.
- Nach Einbau, Servicearbeiten oder Umbau ist die Strom- und Druckluftversorgung bei Bedarf wieder anzuschließen und das Produkt einer sorgfältigen Dichtigkeits- und Funktionsprüfung zu unterziehen. Wenn eine hörbare Undichtigkeit vorliegt oder das Produkt nicht einwandfrei funktioniert, darf es nicht in Betrieb genommen werden.
- Warntexte und technische Angaben auf dem Produkt dürfen nicht durch Farbe oder dgl. verdeckt sein. Wenn sich die Schilder nicht ablesen lassen, hält der Händler vor Ort neue Schilder bereit.

DE **WARNUNG**

DURCH DAS VERSAGEN ODER DIE UNSACHGEMÄSSE AUSWAHL ODER VERWENDUNG DER HIER BESCHRIEBENEN PRODUKTE UND/ODER SYSTEME ODER DAMIT IN VERBINDUNG STEHENDER GERÄTE KANN ES ZU TODESFÄLLEN, VERLETZUNGEN UND SACHSCHÄDIGUNGEN KOMMEN.

Dieses Dokument und andere Information der Parker Hannifin Corporation, ihrer Niederlassungen und autorisierten Händler stellen Produkt- und/oder Systemtypen zur Verfügung, die durch einen Anwender mit entsprechenden technischen Kenntnissen vor dem Einsatz auf Eignung überprüft werden müssen. Es ist wichtig, dass alle Aspekte der Anwendung analysiert und die produkt- oder systemrelevanten Angaben dieser Produktkataloge überprüft werden. Aufgrund der Vielfältigkeit von Betriebsbedingungen und Einsatzbereichen dieser Produkte oder Systeme ist der Anwender, in Form von eigenen Analysen und Tests, allein verantwortlich für die endgültige Auswahl des Produkts bzw. Systems. Er muss sicherstellen, dass alle Leistungsmerkmale, Sicherheits- und Warnhinweise für den jeweiligen Einsatzbereich erfüllt sind. Die hier beschriebenen Produkte, einschließlich aller Angaben zu Produktmerkmalen, Spezifikationen, Konstruktionen, Verfügbarkeit und Preisgestaltung, können jederzeit, ohne Ankündigung und uneingeschränkt von der Parker Hannifin Corp. und ihren Niederlassungen geändert werden.

DE **BITTE BEACHTEN**

Transparente und robuste Behälter aus Polycarbonat eignen sich bestens für Filter und Schmiergeräte. Sie sind für den Einsatz unter normalen Industriebedingungen vorgesehen, sollten jedoch nicht direkter Sonneneinstrahlung oder Stoßen ausgesetzt und nur innerhalb des angegebenen Temperaturbereichs benutzt werden. Wie alle Kunststoffe können sie durch gewisse Chemikalien beschädigt werden. Behälter aus Polycarbonat sollten weder Chlorkohlenwasserstoffen noch Ketonen, Estern oder gewissen Alkoholen ausgesetzt werden. Sie sollten auch nicht in Druckluftsystemen eingesetzt werden, deren Kompressoren mit feuerfesten Flüssigkeiten wie z.B. Phosphatester oder Di-Ester geschmiert werden.

Metallbehälter werden empfohlen, wenn Polycarbonatbehälter aufgrund der Umgebungsbedingungen und der verwendeten Medien nicht verwendet werden dürfen. Metallbehälter widerstehen den meisten dieser Lösungsmittel, sollten jedoch keinen starken Säuren oder Basen ausgesetzt oder in salzhaltigen Umgebungen eingesetzt werden. Setzen Sie sich bei Einsätzen unter diesen Umgebungsbedingungen bitte mit dem Hersteller in Verbindung.

ZUR REINIGUNG VON POLYCARBONAT-BEHÄLTERN DÜRFEN AUSSCHLIESSLICH MILDE SEIFENLÖSUNGEN UND WASSER VERWENDET WERDEN! KEINE Reinigungsmittel wie Azeton, Benzol, Tetrachlorkohlenstoff, Benzin, Methylbenzol und dgl. verwenden, da diese den Kunststoff angreifen.

DE **Sicherheitshinweise**

Ausführlichere Informationen über Richtlinien in Bezug auf die empfohlenen Einsatzbereiche siehe Sicherheitshinweise der Kataloge der Pneumatic Division, die hier auch heruntergeladen werden können: www.parker.com/safety

DE **WARNUNG**

Damit der Polycarbonatbehälter nicht platzt und Verletzungen oder Sachbeschädigungen verursacht, sind die Richtwerte für Behälterdruck und Temperatureinstellung nicht zu überschreiten. Polycarbonatbehälter sind für einen Nenndruck von 10 bar und eine Höchsttemperatur von 52°C ausgelegt.

DES EXEMPLAIRES DE CES INSTRUCTIONS SONT DISPONIBLES POUR L'ANGLOIS, DANS LE MANUEL D'UTILISATION. SI VOUS UTILISEZ CES PRODUITS, VEUILLEZ CONTACTER VOTRE REPRÉSENTANT LOCAL.

IT **ATTENZIONE**

Per evitare comportamenti imprevedibili del sistema che possono provocare lesioni personali e danni alle cose:

- Scollegare l'alimentazione elettrica (se necessario) prima di installazione, manutenzione o conversione.
- Scollegare l'alimentazione dell'aria e depressurizzare tutte le condutture collegate al prodotto prima di installazione, manutenzione o conversione.
- Utilizzare il prodotto alla pressione, alla temperatura e alle altre condizioni specificate in queste istruzioni.
- Il mezzo deve essere privo di condensa se la temperatura ambiente è inferiore al punto di congelamento.
- Effettuare la manutenzione secondo le procedure specificate in queste istruzioni.
- Installazione, manutenzione e conversione di questi prodotti devono essere effettuate da personale competente relativamente al funzionamento dei prodotti pneumatici.
- Dopo installazione, manutenzione o conversione, ricollegare le alimentazioni dell'aria ed elettrica (se necessario) e verificare che il prodotto funzioni correttamente e non vi siano perdite. In caso di perdita o funzionamento anomalo del prodotto, non utilizzarlo.
- Le avvertenze e le specifiche sul prodotto non devono essere coperte da vernice ecc. Qualora siano illeggibili, contattare il proprio rappresentante locale per le targhette di ricambio.

IT **ATTENZIONE**

LA SCELTA OPPURE L'UTILIZZO ERRATO DEI PRODOTTI E/O SISTEMI IVI DESCRITTI OPPURE DEGLI ARTICOLI CORRELATI PUÒ PROVOCARE GRAVI LESIONI PERSONALI, MORTE E DANNI ALLE COSE.

Il presente documento ed altre informazioni fornite dall'azienda, relative affiliate e distributori autorizzati propongono opzioni di prodotti e/o sistemi il cui utilizzo deve essere valutato da utenti in possesso delle competenze tecniche necessarie. È importante analizzare ogni aspetto della propria applicazione, comprese le conseguenze in caso di guasto, nonché valutare le informazioni relative al prodotto o sistema contenute nel presente catalogo di prodotti. In seguito alla varietà di condizioni di esercizio ed applicazioni per questi prodotti o sistemi, l'utente, con le proprie valutazioni ed i propri test, è l'unico responsabile della scelta finale di prodotti e sistemi nonché di accertarsi che tutti i requisiti di prestazioni, sicurezza e normativi dell'applicazione siano soddisfatti.

I prodotti ivi descritti, inclusi ma non limitati a, caratteristiche dei prodotti, specifiche, design, disponibilità e prezzo, sono soggetti a modifiche senza preavviso da parte dell'azienda e delle relative affiliate.

IT **ATTENZIONE**

Le vaschette in polycarbonato, trasparenti e robuste, sono ideali per l'uso con filtri e lubrificanti. Sono indicate per l'uso in normali ambienti industriali, ma non devono essere collocate in aree esposte a luce solare diretta, urti o temperature al di fuori del range indicato. Come molte plastiche, alcune sostanze chimiche possono provocare danni. Le vaschette in polycarbonato non devono essere esposte a idrocarburi, chetoni, esteri e determinati alcool. Non devono essere utilizzate in impianti pneumatici con compressori lubrificati con fluidi ignifughi come esteri e diesteri di fosfati.

Qualora le condizioni ambientali e/o il mezzo non siano compatibili con le vaschette in polycarbonato, si raccomanda l'uso di vaschette metalliche. Le vaschette metalliche resistono alla maggior parte di questi solventi, ma non devono essere utilizzate in presenza di acidi o basi forti oppure in ambienti estremamente salini. Consultare la fabbrica per le eventuali raccomandazioni specifiche.

PER LA PULIZIA DELLE VASCHETTE IN POLICARBONATO, UTILIZZARE ESCLUSIVAMENTE ACQUA E SAPONE NEUTRO! Non utilizzare detergenti quali acetone, benzene, tetracoloro di carbonio, benzina, toluene ecc. che possono danneggiare la plastica.

IT **Guida alla sicurezza**

Per informazioni più complete sulle linee guida di applicazione raccomandate, consultare la sezione Guida alla sicurezza dei cataloghi Pneumatic Division o scaricare la guida all'indirizzo: www.parker.com/safety

IT **ATTENZIONE**

Per evitare la rottura delle vaschette in polycarbonato e conseguenti lesioni personali o danni alle cose, non superare la pressione o la temperatura nominale della vaschetta. Le vaschette in polycarbonato hanno una pressione nominale di 150 PSIG (10 bar) e una temperatura massima di 125°F (52°C).

ULTIORI COPIE DI QUESTE ISTRUZIONI SONO DISPONIBILI A INTEGRAZIONE DEI MANUALI DI USO / MANUTENZIONE PER GLI UTENTI DI QUESTI PRODOTTI. CONTATTARE IL PROPRIO RAPPRESENTANTE LOCALE.

JA **警告**

人が障害を負う危険が生じる。また物的障害が起こりうる予想外のシステム障害を避けるために:

- 機器の取り付け、取り扱いもしくは交換の前に電源を落としてください。
- 機器の取り付け、取り扱いもしくは交換前に全ラインの圧縮空気の供給を止め、ライン内の圧縮空気を排出してください。
- 圧力、使用温度やコネクション等が説明書に記載されている範囲で機器を使用してください。
- 外気が0度以下の場合、完全に乾燥した空気を供給してください。
- 説明書の記載通りに機器の操作を行ってください。
- 機器の取り付け、取り扱い、交換は空気圧機器の十分な知識・経験を持った人が行ってください。
- 機器の取り付け、取り扱い、交換後、電源、圧縮空気を入れ機器が正しく動作するか、空気漏れがないかを確認してください。もし空気漏れが原因による場合や機器が適切に動作しない場合、電源、圧縮空気を止めてください。
- “警告”や仕様の詳細は機器に記載されていません。もし必要な場合は最寄りの Parker、当社子会社にラベルを依頼してください。

JA **警告**

本文書に記載した製品、あるいは関連した物品を、正しく選定しなかったり、使い方を誤ったりすれば死亡事故や、怪我、そして物的損害を引き起こす可能性があります。

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この商品はこの文書で説明されている商品の特性、仕様、デザイン、入手の可能性、価格は Parker、そして当社の子会社や正規販売業者からの通達なく変更される場合があります。

JA **注意**

透明で頑丈なポリカーボネート製ボウルはフィルタとブリケットの使用が理想です。プラスチックボウルは一般的な工業環境に適していますが、直射日光が当たる環境、強風の環境、仕稼範囲内の温度での使用は避けてください。多くのプラスチックと同じようにいくつかの化学物質はボウルの損傷させます。ポリカーボネートボウルは塩素化炭化水素、ケトン、エステル、いくつかのアルコール物質の環境では使用できません。ボウルはホスファートエステルやジュースタイプの耐水性潤滑油を使用したコンプレッサからの供給エアを使用してください。

メタルボウルはポリカーボネート製ボウルと使用温度、使用流体状況が同じでないことを奨励します。メタルボウルは大量の溶剤に耐性がありますが、強酸や塩の環境での使用は避けてください。そのような環境がある場合当社までお問合せください。

ポリカーボネートボウルの洗浄には中性石鹸や水を使用ください。アセトン、ベンジン、炭素四塩化物、ガソリン、トルエン等の洗浄液の使用はしないでください。プラスチック不具合発生の可能性があります。

JA **注意事項**

より詳細の奨励されるアプリケーションの指針は当社カタログの注意事項をご参照ください。もしくは以下から空気圧機器注意事項がダウンロードできます。 www.parker.com/safety

JA **警告**

人が障害を負う、また物的損害の可能性のあるポリカーボネートボウルの破損を避ける為、使用範囲圧力、温度範囲以上での使用はしないでください。ポリカーボネートボウルの最高使用圧力は 1MPa、最高使用温度は 52°Cです。

上記以外のメンテナンスマニュアルを含む説明書が必要な場合最寄りの Parker、そして当社の子会社や正規販売業者に連絡してください。

UK Kits CN 维修包 FR Kits DE Sätze IT Kit JP キット KR 키트 ES Juegos SE Satser

UK Filter Element Kits		DE Filtersätze		KR 필터 엘리먼트		
CN 滤芯维修包		IT Kit elementi filtri		ES Juegos de elementos de filtro		
FR Kits élément filtrant		JP フィルタエレメントキット		SE Filterelementsatser		
				P31 Mini	P32 Compact	P33 Standard
UK	5 micron Particle Filter	JP	5 ミクロン 粒子フィルター			
CN	5 微米 颗粒式过滤	KR	5 마이크로 분립 필터	P31KA00ESE	P32KA00ESE	P33KA00ESE
FR	5 microns Filtre à particules	ES	5 micras Filtro de partículas			
DE	5 µ Partikelfilter	SE	5 mikron Partikelfilter			
IT	5 micron Filtro antiparticolato					
UK	1 micron Coalescing Filter	JA	1 ミクロン 凝集リングフィルタ			
CN	1 微米 凝結式过滤	KR	1 마이크로 응집식 필터	P31KA00ES9	P32KA00ES9	P33KA00ES9
FR	1 microns Filtre coalescent	ES	1 micras Filtro coalescente			
DE	1 µ Sinterfilter	SE	1 mikron Coalescingfilter			
IT	1 micron Filtro a coalescenza					
UK	0.01 micron Coalescing Filter	JP	0.01 ミクロン コアレスティングフィルタ			
CN	0.01 微米 凝結式过滤	KR	0.01 마이크로 응집식 필터	P31KA00ESC	P32KA00ESC	P33KA00ESC
FR	0.01 microns Filtre coalescent	ES	0.01 micras Filtro coalescente			
DE	0.01 µ Sinterfilter	SE	0.01 mikron Coalescingfilter			
IT	0.01 micron Filtro a coalescenza					
UK	Adsorbent Filter	JP	アブソーバフィルター			
CN	吸附式过滤	KR	흡착식 필터	P31KA00ESA	P32KA00ESA	P33KA00ESA
FR	Filtre adsorbant	ES	Filtro adsorbente			
DE	Adsorbentfilter	SE	Adsorptionsfilter			
IT	Filtro ad assorbimento					

- UK

Individual Product Brackets
- CN

单个产品支架
- FR

Éléments de fixation pour produits isolés
- IT

Staffe separate
- DE

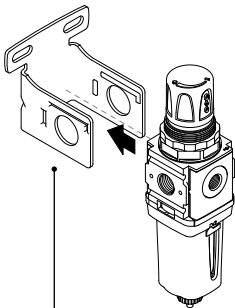
Spezielle Produkthalterungen
- JP

機器個別ブラケット
- KR

유닛 개별 취부 브라켓
- ES

Sujeciones producto individual
- SE

Separata klammor



- P31 Mini

UK

Mounting Bracket

CN

安装支架

FR

Console

DE

Einbauhalterung

IT

Staffa di montaggio

JP

取り付けブラケット

KR

ㄷ형 취부 브라켓

ES

Sujeción de montaje

SE

Monteringskonsol
- P31KA00MW

- UK

L-Bracket
- CN

角架
- FR

Équerre
- DE

Winkelhalterung
- IT

Staffa angolare
- JP

角ブラケット
- KR

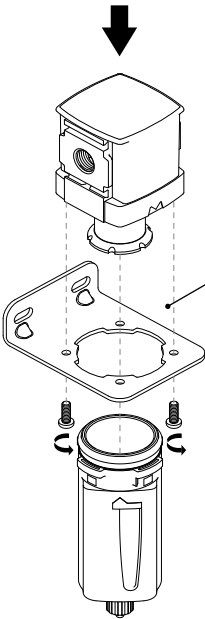
ㄱ형 취부 브라켓
- ES

Sujeción angulara
- SE

Vinkelklamma
- P32 Compact

P32KA00ML
- P33 Standard

P33KA00ML



P31 Mini

UK

Body Connector

CN

主体接头

FR

Élément de liaison

DE

Gehäusestecker

IT

Connettore del corpo

JP

ボディコネクタ

KR

바디 컨넥터

ES

Conector de cuerpo

SE

Husanslutning

P31KA00CB

UK

Body Connector + Wall Mounting Bracket

CN

主体接头+墙壁安装支架

FR

Élément de liaison + Équerre de fixation murale

DE

Gehäusestecker und Wandhalterung

IT

Connettore del corpo + staffa di montaggio a muro

JP

ボディコネクタ+壁取り付けブラケット

KR

바디 컨넥터+취부 브라켓

ES

Conector de cuerpo + Sujeción de muro

SE

Husanslutning + väggfäste

P31KA00MT

UK

Port Connector

CN

接口接头

FR

Raccord

DE

Anschluss-Stutzen

IT

Connettore per porta

JP

ポートコネクタ

KR

포트블럭

ES

Conectores de bocas

SE

Anslutningsport

0.9 - 1.4 Nm (8-12 lbf-in)

UK

Torque

CN

扭矩

FR

Couple

DE

Drehmoment

IT

Coppia

JP

トルク

KR

토크

ES

Par

SE

Moment

Port Connector

接口接头

Raccord

Anschluss-Stutzen

Connettore per porta

ポートコネクタ

포트블럭

Conectores de bocas

Anslutningsport

P32 Compact + P33 Standard

UK

Body Connector + Wall Mounting Bracket

CN

主体接头+墙壁安装支架

FR

Élément de liaison + Équerre de fixation murale

DE

Gehäusestecker und Wandhalterung

IT

Connettore del corpo + staffa di montaggio a muro

JP

ボディコネクタ+壁取り付けブラケット

KR

바디 컨넥터+취부 브라켓

ES

Conector de cuerpo + Sujeción de muro

SE

Husanslutning + väggfäste

P32 Compact

P32KA00MT

P33 Standard

P32KA00MT

UK

Port Connector

CN

接口接头

FR

Raccord

DE

Anschluss-Stutzen

IT

Connettore per porta

JP

ポートコネクタ

KR

포트블럭

ES

Conectores de bocas

SE

Anslutningsport

Manifold Block

分气块

Bloc d'ilots

Sammelsystemleiste

Blocco manifold

マニホールドブロック

매니폴드 블록

Bloque de manifold

Anslutningsblock

UK

Body Connector

CN

主体接头

FR

Élément de liaison

DE

Gehäusestecker

IT

Connettore del corpo

JP

ボディコネクタ

KR

바디 컨넥터

ES

Conector de cuerpo

SE

Husanslutning

P32 Compact

P32KA00CB

P33 Standard

P32KA00CB

- UK

Regulator + Filter/Regulator Angle Bracket
- CN

调压阀+过滤器/调压阀角架
- FR

Équerre pour Régulateur + Filtre/Régulateur
- DE

Winkelhalterung für Regler + Filter/Regler
- IT

Staffa angolare per regolatore + filtro/regolatore
- JP

レギュレータ+フィルタ/レギュレータ角ブラケット
- KR

레귤레이터+필터.레귤레이터 개별 취부 브라켓
- ES

Sujeción angulara Regulator + Filtro/Regulator
- SE

Regulator + vinkelklamma för filter/regulator

- UK

Panel Mounting Ring
- CN

面板安装螺母
- FR

Écrou pour montage sur panneau
- DE

Schalttafel-Schraubring
- IT

Anello di montaggio su pannello
- JP

パネル取り付けリング
- KR

판넬 마운팅 너트
- ES

Aro de montaje en panel
- SE

Ring för panelmontering

- UK

Plastic Nut
- CN

塑料螺母
- FR

Écrou en plastique
- DE

Kunststoffmutter
- IT

Dado in plastica
- JP

プラスチックナット
- KR

플라스틱 너트
- ES

Tuerca plástica
- SE

Plastmutter
- UK

Metal Nut
- CN

金属螺母
- FR

Écrou métallique
- DE

Metallmutter
- IT

Dado in metallo
- JP

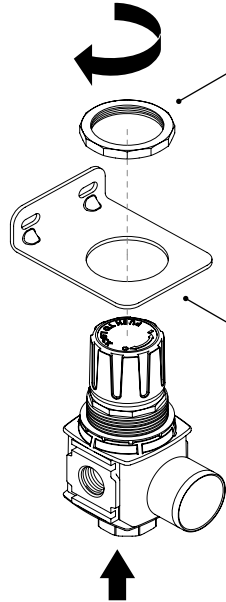
メタルナット
- KR

네탈 너트
- ES

Tuerca metálica
- SE

Metallmutter

P31 Mini	P31KA00MP	P31KA00MM
P32 Compact	P32KA00MP	P32KA00MM
P33 Standard	P33KA00MP	P33KA00MM



- UK

Angle Bracket
- CN

角架
- FR

Équerre
- DE

Winkelhalterung
- IT

Staffa angolare
- JP

角ブラケット
- KR

ㄱ형 취부 브라켓
- ES

Sujeción angulara
- SE

Vinkelklamma
- P31 Mini

P31KA00MR
- P32 Compact

P32KA00MR
- P33 Standard

P33KA00MR



Pneumatic Division
Richland, Michigan 49083
269-629-5000

PDNSG-1

Pneumatic Division Safety Guide

ISSUED: August 1, 2006

Supersedes: June 1, 2006

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

WARNING:

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF PNEUMATIC DIVISION PRODUCTS, ASSEMBLIES OR RELATED ITEMS ("PRODUCTS") CAN CAUSE DEATH, PERSONAL INJURY, AND PROPERTY DAMAGE. POSSIBLE CONSEQUENCES OF FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THESE PRODUCTS INCLUDE BUT ARE NOT LIMITED TO:

- Unintended or mistimed cycling or motion of machine members or failure to cycle
- Work pieces or component parts being thrown off at high speeds.
- Failure of a device to function properly for example, failure to clamp or unclamp an associated item or device.
- Explosion
- Suddenly moving or falling objects.
- Release of toxic or otherwise injurious liquids or gasses.

Before selecting or using any of these Products, it is important that you read and follow the instructions below.

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.
- 1.3. Relevant International Standards:** For a good guide to the application of a broad spectrum of pneumatic fluid power devices see: ISO 4414:1998, Pneumatic Fluid Power – General Rules Relating to Systems. See www.iso.org for ordering information.
- 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, ketones, 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.

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.
- 4.3. Lockout / Tagout Procedures:** Be sure to follow all required lockout and tagout procedures when servicing equipment. For more information see: OSHA Standard – 29 CFR, Part 1910.147, Appendix A, The Control of Hazardous Energy – (Lockout / Tagout)
- 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.