



Production Control Units, Inc.

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SERVICE BULLETIN for Series 25 Couplers Model EPF

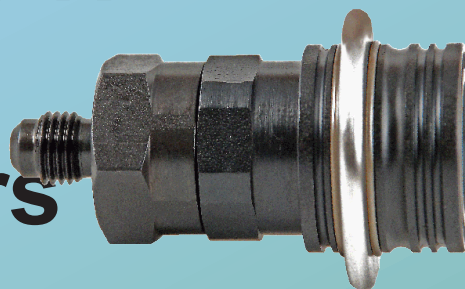


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Production Control Units, Inc.-Coupler Products

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PCU Web Site: www.pcuinc.com - E-mail: couplers@pcuinc.com

Coupler Application Data Inquiry

Company _____ Phone # _____

Contact _____ Fax # _____

Address _____ E-mail _____

City _____ State _____ Country _____ Zip _____

Type & brand name for current coupler _____

Customer product manufactured _____

Type of coupler required

Size and type of tube or port to be sealed _____

☐ Straight ☐ Swaged ☐ Expanded ☐ Other _____

Length of tube or port available for coupler _____

Quantity required _____

Delivery due date _____

How will the coupler be used?

Refrigerant processing

What type of refrigerant? (HFC-134a, HP62, R-22, etc.) _____

Oil processing

What type of oil (Mineral, Polyol Ester, PAG, etc.) _____ (Attach MSDS)

Leak Burst testing

Maximum pressure & type of test media? (Air, Helium, etc.) _____

Vacuum

What level of vacuum needs to be achieved? _____

What Oil be present during vacuum pump down? _____

If "yes", what type of oil? _____

Additional process information

Along with your request for quote, please provide (1) copy of print showing area to be sealed, and (3) quality sample parts.

NOTE: The Data Inquiry form is available in pdf format on our web site at

www.PCUInc.com



GENERAL DESCRIPTION

These tough, compact, lightweight PCU couplers utilize heat-treated parts for interchangeability and long life oxide and nickel finishes resist corrosion. They provide a large, unrestricted flow rate for a variety of production uses while minimizing process material loss during coupling/uncoupling.

An eight (8) ball detent lock provides instant positive coupling. Simply pull back the grooved locking ring on the coupler, slide the coupler over the Nipple and push together until the lock ring snaps to its "lock position".

Because of the unique design of the Series 25 Couplers assemblies, they are able to be built using inexpensive O-ring seals which provide positive leak-tight shutoff. They will hold pressure from vacuum to 500 psig.

COUPLER FEATURES & SPECIFICATIONS

SAFE: Positive ball-lock action prevents blow-off or premature loss of sealed connection.

STRONG: Holds pressures from 25 microns up to 500 psig, minimum proof pressure 4000 psig.

MANY APPLICATIONS: Seal compounds can be easily changed for many uses with oils, refrigerants, water, air, and vacuum.

The standard Series 25 Coupler assembly can be built with a variety of seal compounds to satisfy your application.

MAINTENANCE INSTRUCTIONS

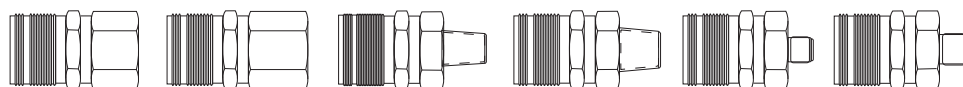
Coupler life is dependent upon a regular scheduled maintenance program. The application and its risk potential should determine frequency. PCU cannot determine a maintenance schedule due to the many factors involved: temperature, proper size selection, fluid compatibility, pressure, mechanical loads, user responsibility. User must establish a maintenance program based on previous service life. There are several factors that must be included when setting up a maintenance program: visual inspection for cracked, defective parts and excessively worn components; dirt or particle buildup in seal and clamping areas; thorough cleaning and proper lubrication; replace worn out and defective seals.

SERIES 25 MODEL EPF COUPLERS

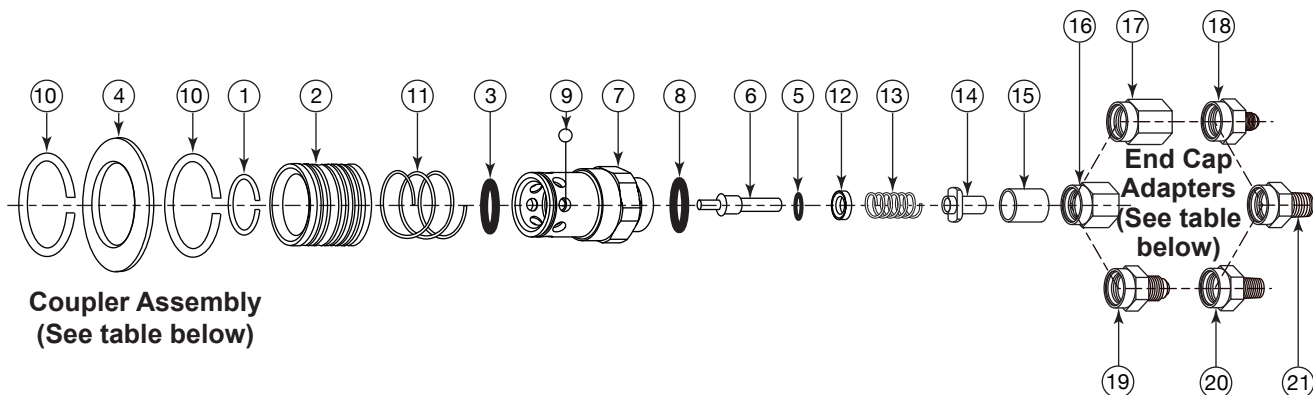
The basic Series 25 Model EPF coupler, less end cap adapter, consists of fifteen parts which must be assembled in correct order to assure proper functioning of the unit. Although all units are tested in our plant at 500 psig air and less than 50 microns vacuum, Production Control Units, Inc. cannot be responsible for any malfunction of the Series 25 Coupler or Nipple due to faulty servicing of the unit in the field by people other than PCU field engineers.

NEOPRENE SEALS

1/4" FPT ADAPTER	3/8" FPT ADAPTER	1/4" MPT ADAPTER	3/8" MPT ADAPTER	1/4" SAE FL ADAPTER	3/8" SAE FL ADAPTER
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COUPLER ASSEMBLY	62PF211	62PF311	62PF231	62PF331	62PF221	62PF321
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End Cap Adapters

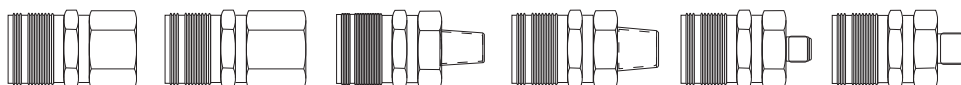
16. 61830 - 1/4" FPT	19. 61821 - 3/8" SAE FL
17. 61869 - 3/8" FPT	20. 61845 - 1/4" MPT
18. 61829 - 1/4" SAE FL	21. 61870 - 3/8" MPT

REPLACEMENT PARTS LIST

Coupler Assembly NEOPRENE SEALS			
Item	Description	Qty/Unit	Part Number
1.	Retaining Ring	1	61832
2.	Sleeve	1	61831
3.	O-Ring	1	61834
4.	Ring	1	47921
5.	O-Ring	1	61843
6.	Stem	1	61886
7.	Coupler Body	1	61835
8.	O-Ring	1	61822
9.	Ball	8	61833
10.	Retaining Ring	2	66814
11.	Spring	1	61801
12.	Retainer	1	61840
13.	Spring	1	61802
14.	Perch	1	61825
15.	Spacer	1	61837

BUNA-N (NITRILE) SEALS

1/4" FPT ADAPTER	3/8" FPT ADAPTER	1/4" MPT ADAPTER	3/8" MPT ADAPTER	1/4" SAE FL ADAPTER	3/8" SAE FL ADAPTER
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COUPLER
ASSEMBLY

62PF212

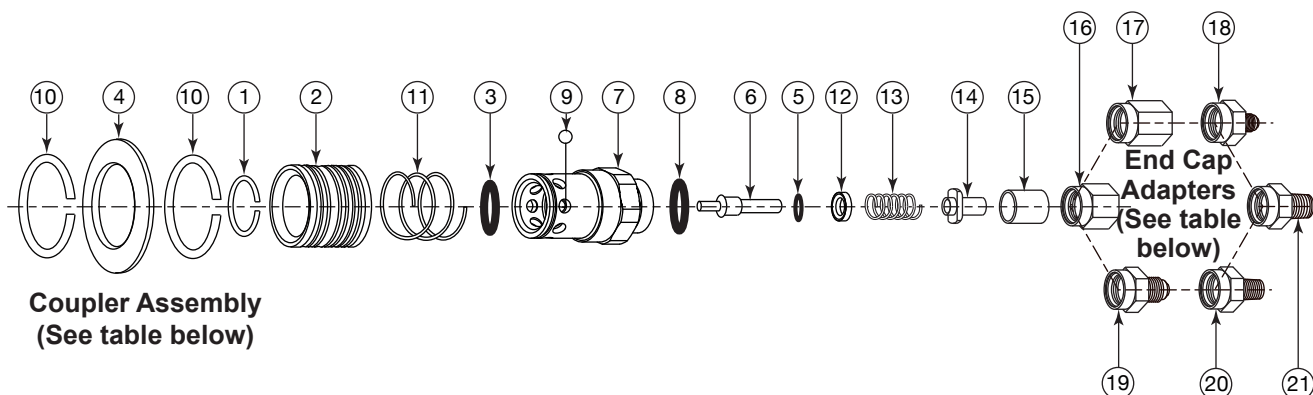
62PF312

62PF232

62PF332

62PF222

62PF322



Coupler Assembly
(See table below)

End Cap Adapters

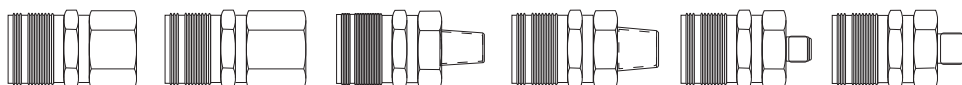
16. 61830 - 1/4" FPT	19. 61821 - 3/8" SAE FL
17. 61869 - 3/8" FPT	20. 61845 - 1/4" MPT
18. 61829 - 1/4" SAE FL	21. 61870 - 3/8" MPT

REPLACEMENT PARTS LIST

Coupler Assembly BUNA-N (NITRILE) SEALS			
Item	Description	Qty/Unit	Part Number
1.	Retaining Ring	1	61832
2.	Sleeve	1	61831
3.	O-Ring	1	61848
4.	Ring	1	47921
5.	O-Ring	1	61847
6.	Stem	1	61886
7.	Coupler Body	1	61835
8.	O-Ring	1	61846
9.	Ball	8	61833
10.	Retaining Ring	2	66814
11.	Spring	1	61801
12.	Retainer	1	61840
13.	Spring	1	61802
14.	Perch	1	61825
15.	Spacer	1	61837

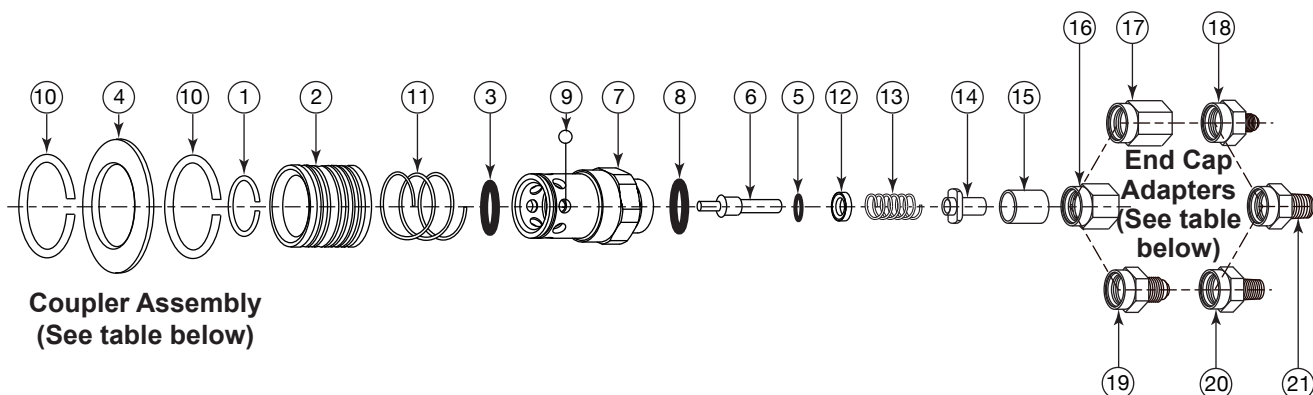
FLUOROCARBON SEALS

1/4" FPT ADAPTER	3/8" FPT ADAPTER	1/4" MPT ADAPTER	3/8" MPT ADAPTER	1/4" SAE FL ADAPTER	3/8" SAE FL ADAPTER
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COUPLER
ASSEMBLY

62PF213	62PF313	62PF233	62PF333	62PF223	62PF323
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Coupler Assembly
(See table below)

End Cap Adapters

16. 61830 - 1/4" FPT	19. 61821 - 3/8" SAE FL
17. 61869 - 3/8" FPT	20. 61845 - 1/4" MPT
18. 61829 - 1/4" SAE FL	21. 61870 - 3/8" MPT

REPLACEMENT PARTS LIST

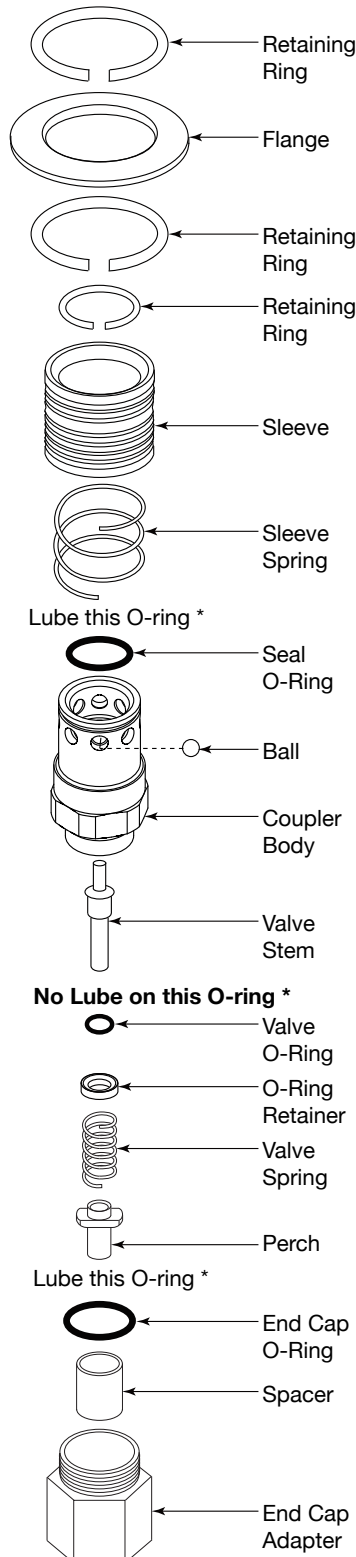
Coupler Assembly FLUOROCARBON SEALS			
Item	Description	Qty/Unit	Part Number
1.	Retaining Ring	1	61832
2.	Sleeve	1	61831
3.	O-Ring	1	61854
4.	Ring	1	47921
5.	O-Ring	1	61853
6.	Stem	1	61886
7.	Coupler Body	1	61835
8.	O-Ring	1	61852
9.	Ball	8	61833
10.	Retaining Ring	2	66814
11.	Spring	1	61801
12.	Retainer	1	61840
13.	Spring	1	61802
14.	Perch	1	61825
15.	Spacer	1	61837
16.	End Cap	1	See Table "End Cap Adapters Above"



SERIES 250 COUPLER ASSEMBLY

DISASSEMBLY - COUPLER

Holding the coupler assembly in one hand, pull the sleeve back with thumb and forefinger of same hand to expose the end of the coupler body. Using retaining ring pliers (PCU Part # A-21599) or a pointed tool, pry the retaining ring from the groove on the coupler body. Set aside. Insert Ball Assembly Tool (PCU Part # A-21587) to hold balls in place while removing coupler sleeve and sleeve spring. If you don't have a Ball Assembly Tool, carefully remove coupler sleeve and spring over a shop rag or towel to keep balls from rolling away. Remove balls and set aside. Place coupler body in a vise clamping on the hex. Use a 1" open-end wrench (or equivalent) on end cap adapter. Loosen until the end cap adapter can be removed by hand. Remove the coupler assembly from the vise. Holding the coupler body with its related parts threaded end up, remove the spacer and set aside. Tilt the coupler body down and slide out the valve assembly. (Note: Tap valve assembly loose if stuck.) Check and remove perch, spring, O-ring retainer, and valve O-ring from valve stem. Discard all O-rings. With a pointed tool, pry seal O-ring from inside coupler body, being careful not to scratch O-ring groove.



* Use PCU O-ring lubricant 490-00134

Lubricate O-ring with PCU Lubricant #490-00134 before inserting seal O-ring in groove inside coupler body. Press firmly against inner diameter to ensure proper placement of seal. The Ring Insertion Tool (PCU Part # A-21585) is helpful in accomplishing this. After parts have all been inspected, pick up valve stem and slide new valve O-ring over stem and upon shouldered portion of the valve stem. **(Do not lube this O-ring.)** Next, position the O-ring retainer behind the O-ring, making certain the cupped portion of the O-ring retainer is next to the O-ring. Slide the valve spring over the valve stem until it comes in contact with the flat side of the O-ring retainer. Slide the perch onto the valve stem, short end first, pushing it under the spring. Pick up the coupler body, holding it threaded end down, and slide the valve assembly up into the coupler body, valve stem first. Tilt the coupler body until the threaded end is pointing up, allowing the valve assembly to drop into place. Ensure that the valve assembly remained intact, then insert spacer into the coupler body until it comes in contact with the shoulders of the perch. Pick up the end cap adapter and screw the adapter to the coupler assembly. Set torque wrench, using approximately 35 to 40 foot lbs. torque. Turn assembly over. Using the Ball Assembly Tool (PCU Part # A-21587), insert the balls (8) into the holes in the coupler body. If the Ball Assembly Tool is not available, use O-ring grease or petroleum jelly in ball holes to hold balls in place. Slide sleeve spring over end of coupler body; place sleeve over spring, large diameter first. Push retaining ring into groove in coupler body using fingers or you may use the small diameter of the Ball Assembly Tool and push down on the retaining ring until the retaining ring snaps into the groove on the coupler body. Remove assembly tool, if used; this completes assembly.

REASSEMBLY - COUPLER

250 Coupler Service Tool Kit #460-00250

625-00810	O-Ring Insertion Tool
A-21587	Magnetized Ball Assembly Tool
A-21599	Retaining Ring Pliers



WE SPECIALIZE IN CUSTOM COUPLERS & TOOLING TO SUIT YOUR APPLICATION.



Series 25



Series 86



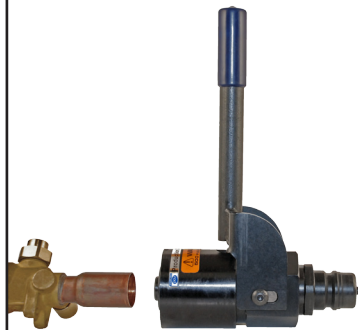
Series 87



Series 91



Series 93



Series 98



Series 100 & 101



Series 109



Series 250



Series 410



Series 500



Series 250 Evac & Charge



Series 13000



Series 104



Series 106



Series 106 Adapter

Call our Coupler & Specialty Tooling Team for more information.

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