

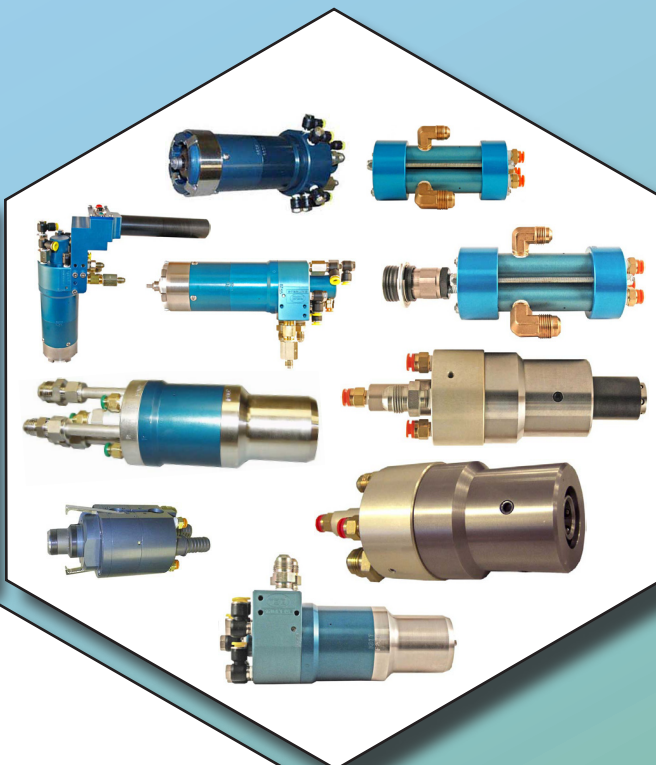


# Coupler & Tooling Catalog

## COUPLERS



## TOOL ADAPTORS



## ACCESSORIES




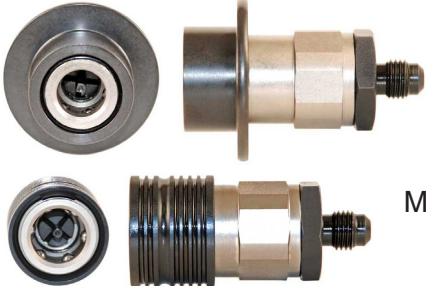
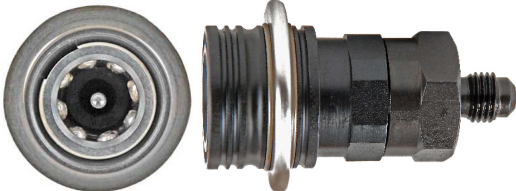

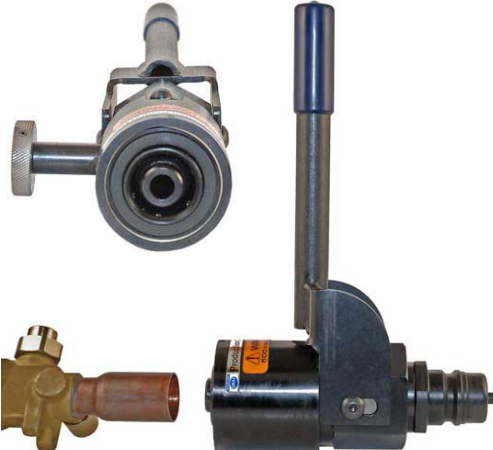



**PCU Production Control Units, Inc.**

2280 West Dorothy Ln., Dayton Ohio 45439-1892, USA

Phone: 937-299-5594 • FAX: 937-299-3843 • [www.pcuinc.com](http://www.pcuinc.com)



**We specialize in custom Couplers  
to suit your application.**

 <p>Series 250</p>	 <p>Series 410</p>
 <p>Series 500</p>	 <p>Model 86</p> <p>Model 87</p> <p>Series HFC-134a</p>
 <p>Series 25-Model EPF</p>	 <p>Series 91</p>
 <p>Series 98</p>	 <p>Series 93</p> <p>Series 10</p>
 <p>Series 250 Evac &amp; Charge</p>	 <p>Power Coupler</p>

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- Series 250 Models 76 & 77 - (PB052)
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# Production Control Units, Inc.-Coupler Products

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PCU Web Site: [www.pcuinc.com](http://www.pcuinc.com) - E-mail: [couplers@pcuinc.com](mailto: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

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





# COUPLERS



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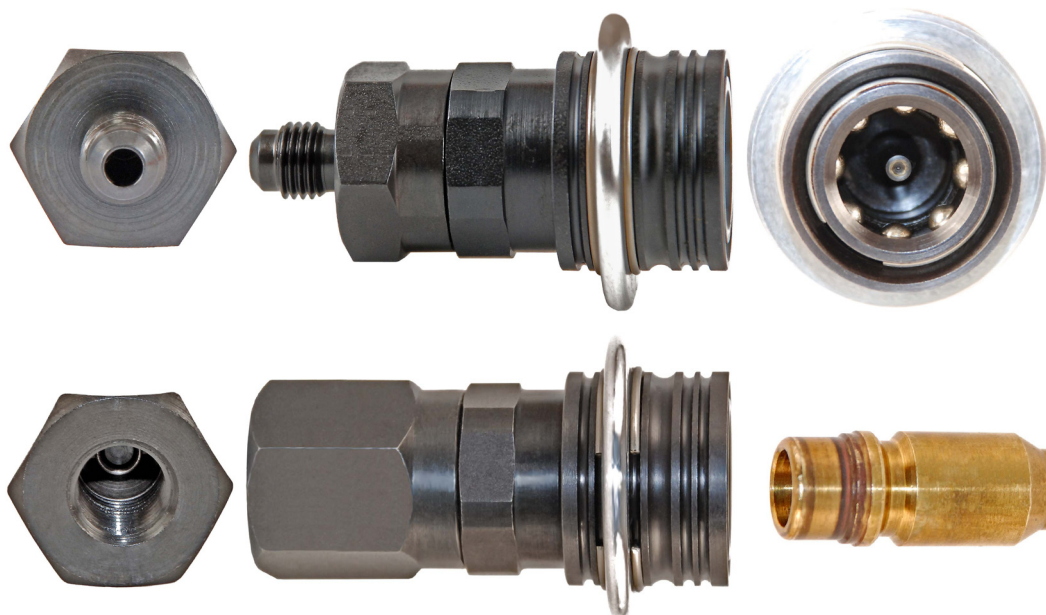


## Series 25 Model EPF Quick-Connect Coupler

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### FEATURES

- Easy installation & removal
- Valved shutoff
- Leak-free
- Lightweight
- Corrosion resistant
- Low maintenance



The PCU Series 25/EPF Coupler is designed for easy installation onto Eaton Single Seal Valve (High Flow) Fittings.

Simply pull the collar back and hold, slide the coupler onto the process fitting and release the collar. The 8-ball detent lock provides a quick positive coupling.

Use the PCU Series 25/EPF Coupler for product evacuating, charging, pressure testing; wherever you need a quick connection in appliance manufacturing or processing.

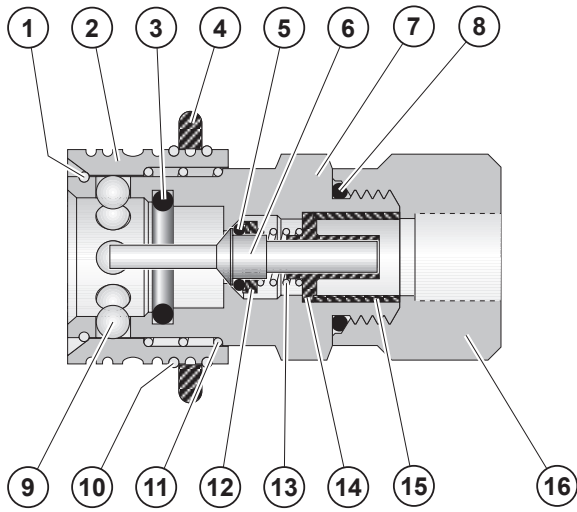
The PCU Series 25/EPF Coupler's standard seal material is neoprene. Other seal materials are available for applications using vacuum, refrigerant, air, helium, nitrogen, lubricants or water.

The PCU Series 25/EPF Coupler can be ordered with one of a variety of adapter caps to meet your installation needs.

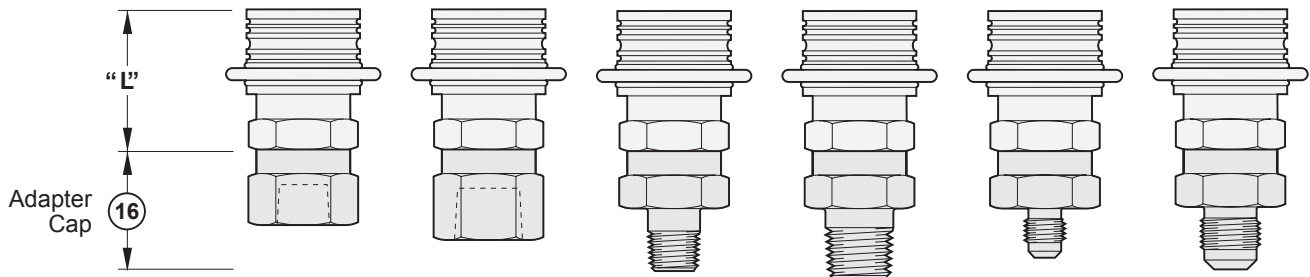
The PCU Series 25/EPF Coupler is easy to maintain ensuring long term use.

For air operated power coupler, model EPF, contact order department at (1-937-299-5594) and request information on part number 107012-001.

## Series 25/EPF Quick-Connect Coupler For “Single Seal Process Fitting”



Item	Description	Qty/ Unit	Part Number		
			1-Neoprene	2-Nitrile	3-Fluorocarbon
1	Retaining Ring	1	61832		
2	Sleeve	1	61831		
3	O-Ring	1	61834	61848	61854
4	Ring	1	47921		
5	O-Ring	1	61843	61847	61853
6	Stem	1	61886		
7	Body	1	61835		
8	O-Ring	1	61822	61846	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 Below		



Adapter	1/4 FPT	3/8 FPT	1/4 MPT	3/8 MPT	1/4 SAE Flare	3/8 SAE Flare
Adapter Cap P/N:	61830	61869	61845	61870	61829	61821
Coupler Ass'y. P/N: Neoprene	62PF211	62PF311	62PF231	62PF331	62PF221	62PF321
Coupler Assy P/N: Nitrile	62PF212	62PF312	62PF232	62PF332	62PF222	62PF322
Coupler Assy P/N: Fluorocarbon	62PF213	62PF313	62PF233	62PF333	62PF223	62PF323

### TECHNICAL SPECIFICATIONS:

Weight . . . . .	7.3 oz (207 G)
Size . . . . .	1-3/16" Dia (1-5/8" Collar) x 1-1/2" "L" [30mm Dia (41mm Collar) x 38mm "L"]
Vacuum/Pressure	25 microns to 500 PSI (35 kg/cm <sup>2</sup> )
Minimum proof pressure . . . .	5000 PSI (350 kg/cm <sup>2</sup> )
Temperature range . . . . .	0–250° F (0–121° C)

### Standard stock units shipped same day:

- 62PF211 (Neoprene Seals)
- 62PF212 (Nitrile Seals)
- 62PF213 (Fluorocarbon Seals)
- 62PF221 (Neoprene Seals)
- 62PF321 (Neoprene Seals)



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## Series 250 Models 61 and 62

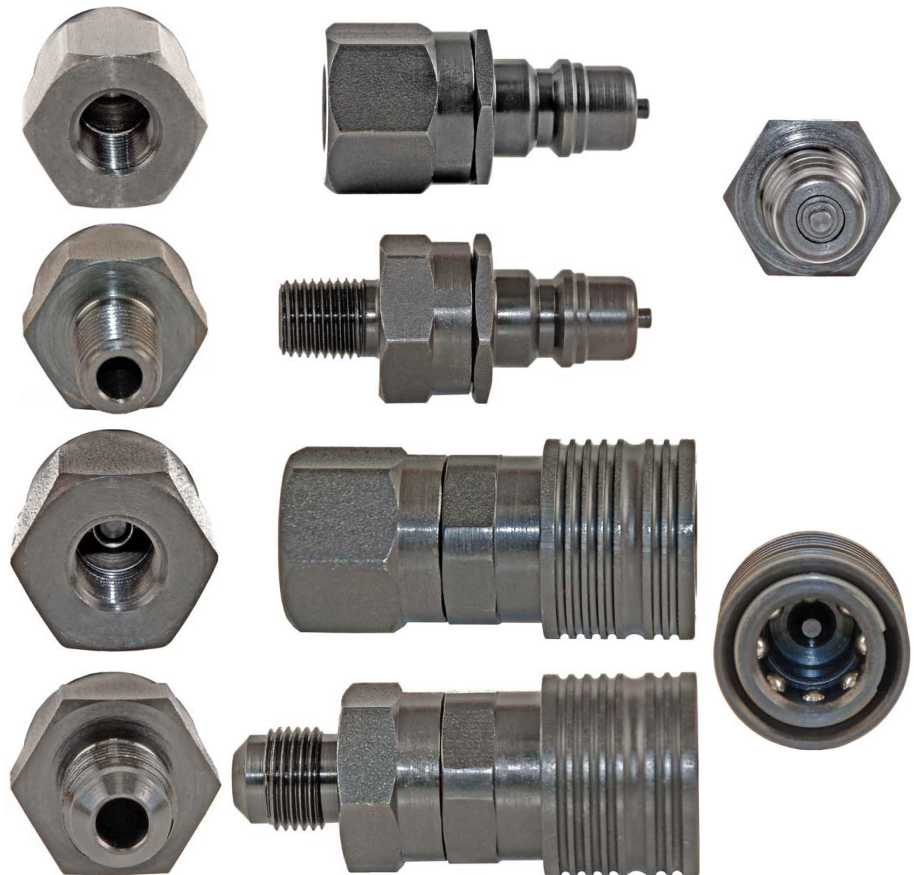
### Two-Way Shutoff Valved Nipples and Couplers

#### FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 0.7 Cv

#### APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen



These tough, lightweight PCU Couplers and Nipples utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses, while minimizing process material loss during coupling and uncoupling.

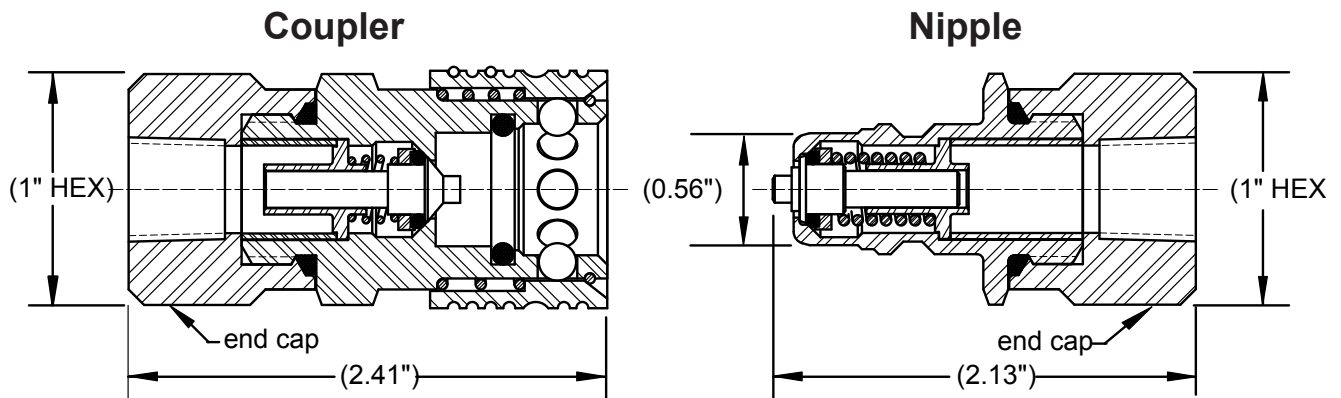
An eight (8) ball detent lock provides instant positive coupling. Simply pull back the grooved locking ring on the Coupler, slide the Coupler over the Nipple and push together until the lock ring snaps to it's "lock position".

Because of the unique design of the Series 250 Couplers and Nipple 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 1000 psig.

The standard Series 250 Coupler and Nipple assembly can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants and R600a. Other applications, which require oils/lubricants, please contact our Order Department at (1-937-299-5594) for help in selecting the correct compound for your particular application.

The Series 250 Coupler and Nipples complement our Series 50, 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

## Series 250 Models 61 & 62 Two-Way Shutoff Valved Nipples and Couplers



### Part Number

#### Model No.

61 = Nipple  
62 = Coupler

#### End Cap Size & Style

1 1 = 1/8 NPT, female  
1 3 = 1/8 NPT, male  
2 1 = 1/4 NPT, female  
2 2 = 1/4 SAE, flare, male  
2 3 = 1/4 NPT, male  
3 1 = 3/8 NPT, female  
3 2 = 3/8 SAE, flare, male  
3 3 = 3/8 NPT, male

#### O-Ring Compounds

1 = Neoprene  
2 = Buna-n (Nitrile)  
3 = Fluorocarbon  
5 = For use with R410a  
refrigerant  
6 = EPDM  
7 = For use with HFC-134a  
refrigerant

### SERVICE BULLETIN

Service Bulletin SB250-61\_62 contains general description, spare parts list, and maintenance information.

**Standard Stock Units:** 61211, 61217, 62211, 62217, 62321



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Rev. 01-02-13



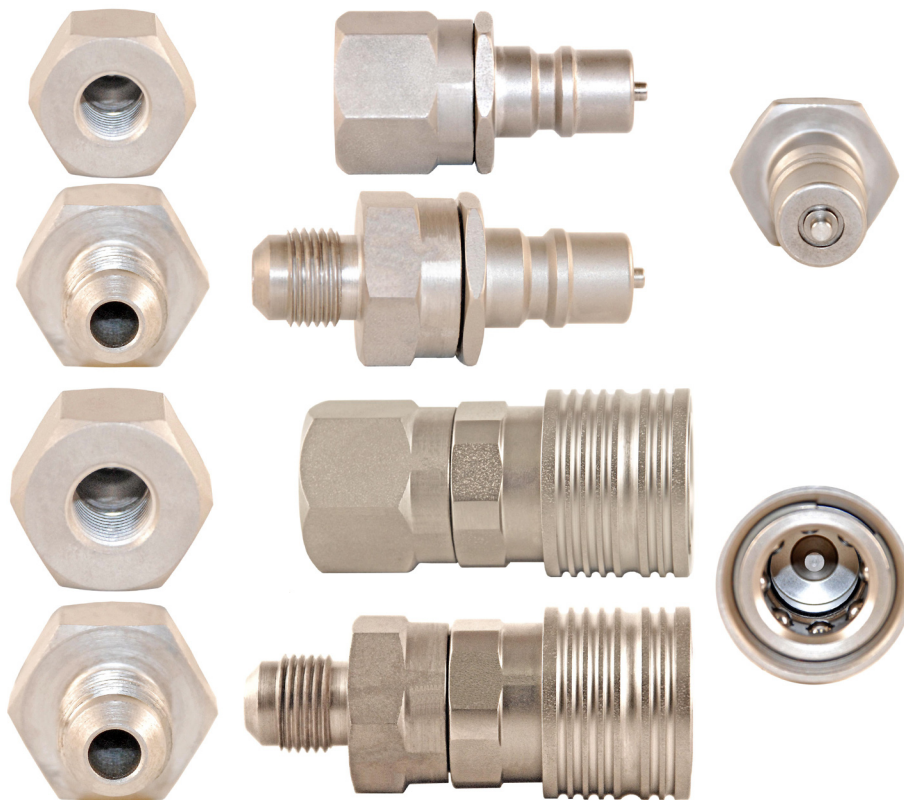
## FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 0.7 Cv

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

# Series 250 Models 64 and 65 Two-Way Shutoff Valved Nipples and Couplers



Models 64 and 65 Series 250 is the same flow and internal components as Models 61 and 62 however it is NOT interchangeable. Use these models when there are two fluids or more which should not be mixed. Models 64 and 65 are nickel plated for color difference from Models 61 and 62 which are black in color.

Model 64 and 65 utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses, while minimizing process material loss during coupling and uncoupling.

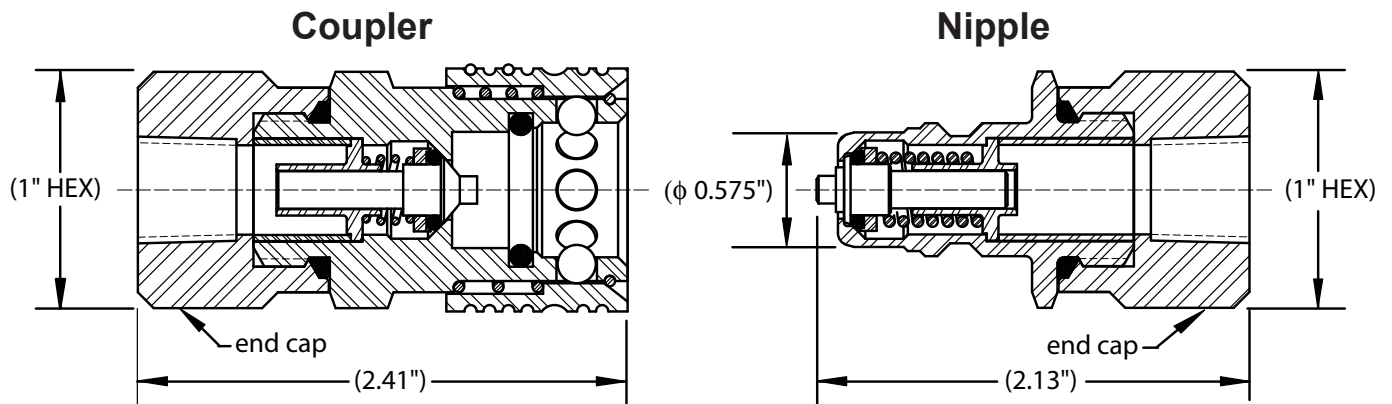
An eight (8) ball detent lock provides instant positive coupling. Simply pull back the grooved locking ring on the Coupler, slide the Coupler over the Nipple and push together until the lock ring snaps to its "lock position".

Because of the unique design of the Series 250 Couplers and Nipple 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 1000 psig.

The standard Series 250 Coupler and Nipple assembly can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants and R600a. Other applications, which require oils/lubricants, please contact our Order Department at (1-937-299-5594) for help in selecting the correct compound for your particular application.

The Series 250 Coupler and Nipples complement our Series 50, 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

## Series 250 Model 64 & 65 Two-Way Shutoff Valved Nipples and Couplers



### Part Number

#### Model No.

6 4 N = Nipple

6 5 N = Coupler

#### End Cap Size & Style

1 1 = 1/8 NPT, female

1 3 = 1/8 NPT, male

2 1 = 1/4 NPT, female

2 2 = 1/4 SAE, flare, male

2 3 = 1/4 NPT, male

3 1 = 3/8 NPT, female

3 2 = 3/8 SAE, flare, male

3 3 = 3/8 NPT, male

#### O-Ring Compounds

1 = Neoprene

2 = Buna-n (Nitrile)

3 = Fluorocarbon

5 = For use with R410a  
refrigerant

6 = EPDM

7 = For use with HFC-134a  
refrigerant

### SERVICE BULLETIN

Service Bulletin SB250-64\_65 contains general description, spare parts list, and maintenance information.

**Standard Stock Units:** 64N211, 64N231, 65N211



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Rev. 01-02-13





## FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

# Series 250 Models 71 and 72 Two-Way Shutoff Valved Nipples and Couplers



The Models 71 and 72 Nipple and Coupler assemblies have an improved seal design. Field testing has shown that this design will offer longer life and better compatibility characteristics with blended refrigerants and ester oils. They will provide positive leak-tight shutoff and will hold pressure from vacuum to 1000 psig.

These tough, lightweight PCU Couplers and Nipples utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate (0.7 Cv) for a variety of production uses, while minimizing process material loss during coupling and uncoupling, within a temperature range of 0° to 250°F.

An eight 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".

The standard Series 250 Coupler and Nipple assembly is built using neoprene seal material. We recommend our standard products for processing R-22, R410a, R404a, R600a, and compressed air.

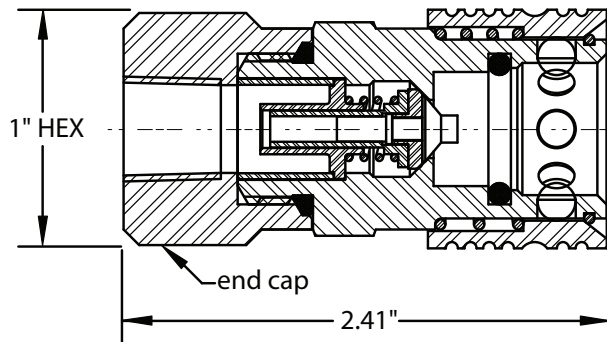
If currently using the Series 250 Model 61 Nipple or the Model 62 Coupler, inexpensive kits are available which can easily be retrofitted. This allows you to take advantage of this design improvement.

When vacuum and ester oils are being used please contact our Order Department at (937-299-5594) for help in selecting the correct elastomer for your particular application.

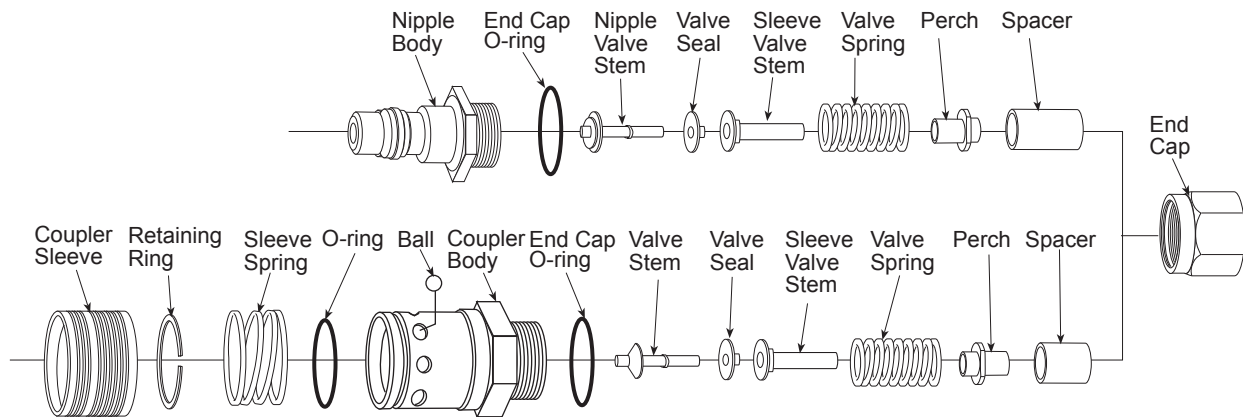
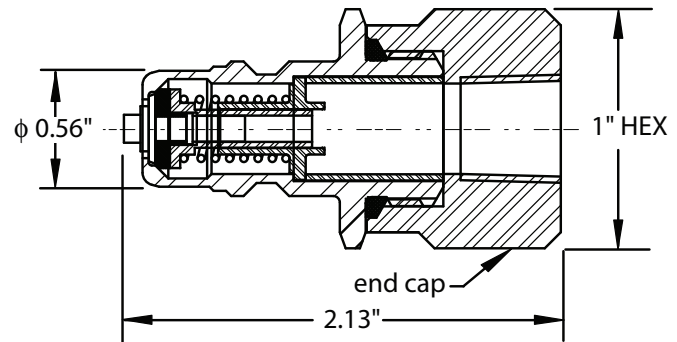
The Series 250 Coupler and Nipples complement our Series 50, 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

# Series 250 Models 71 & 72 Two-Way Shutoff Valved Nipples and Couplers

## Coupler



## Nipple



### Part Number

**Model No.**  
71 = Nipple  
72 = Coupler

**End Cap Size & Style**  
1 1 = 1/8 NPT, female  
1 3 = 1/8 NPT, male  
2 1 = 1/4 NPT, female  
2 2 = 1/4 SAE, flare, male  
2 3 = 1/4 NPT, male  
3 1 = 3/8 NPT, female  
3 2 = 3/8 SAE, flare, male  
3 3 = 3/8 NPT, male

**O-Ring Compounds**  
1 = Neoprene  
2 = Buna-n (Nitrile)  
3 = Fluorocarbon  
6 = EPDM  
7 = For use with HFC-134a refrigerant

### Coupler

#### Valve Assembly Part Number

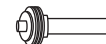
Neoprene ..... 71012  
Buna-N ..... 71011  
Fluorocarbon ... 71013  
EPDM ..... 71014



### Nipple

#### Valve Assembly Part Number

Neoprene ..... 71008  
Buna-N ..... 71007  
Fluorocarbon ... 71009  
EPDM ..... 71010



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Rev. 03-11-10



## Series 250 Models 76 and 77

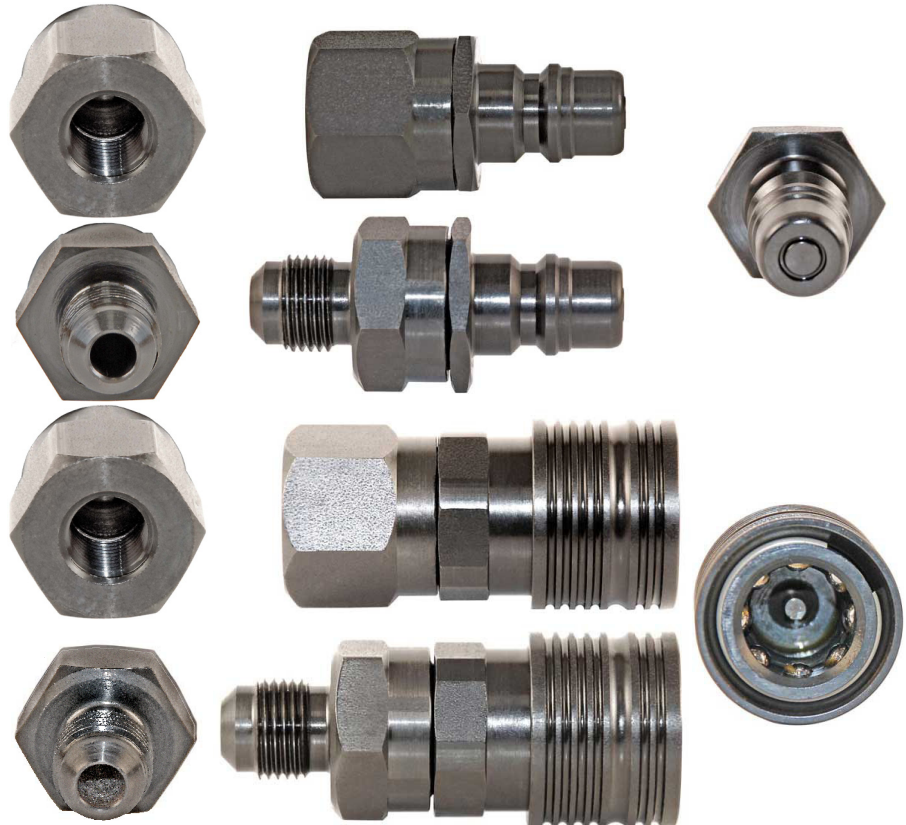
### Two-Way Shutoff Valved Nipples and Couplers

#### FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 0.7 Cv

#### APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen



Models 76 and 77 Series 250 is the same as Models 61 and 62 with the exception of the stem. Model 76 nipple stem is flush with the nipple body. Use Flush stem design to insure no loss of pressure by accidentally bumping stem during process. Any Series 250 Models 61 and 62 can be converted to Models 76 and 77 by just changing the stem (stem 77422 for coupler and stem 77424 for nipple).

These tough, lightweight PCU Couplers and Nipples utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses, while minimizing process material loss during coupling and 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".

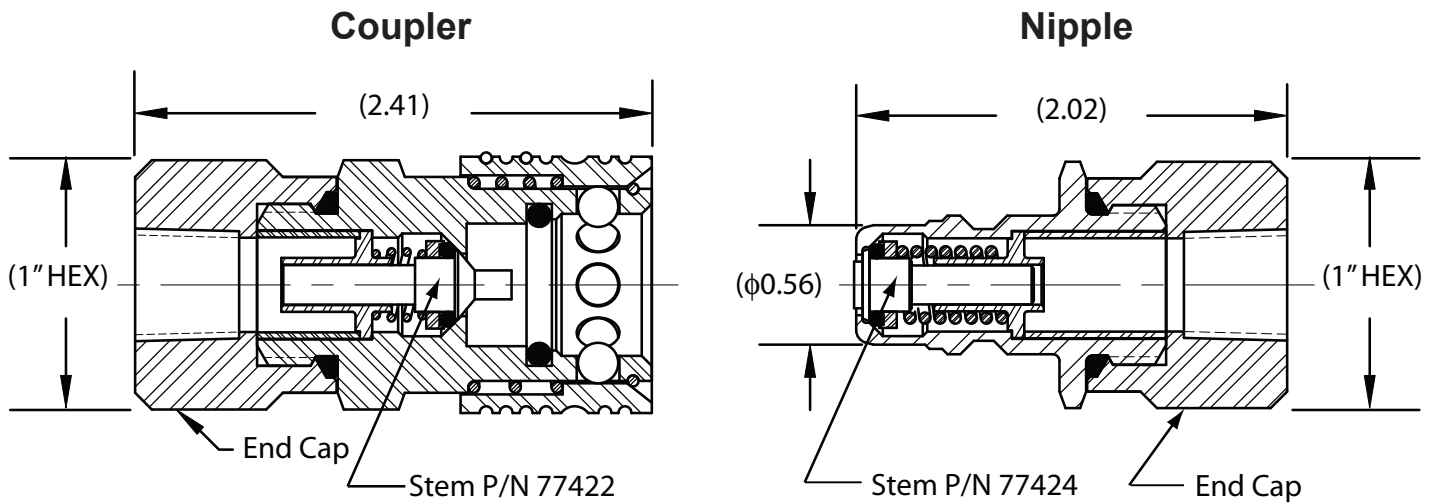
Because of the unique design of the Series 250 Couplers and Nipple

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 1000 psig.

The standard Series 250 Coupler and Nipple assembly can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants and R600a. Other applications, which require oils/lubricants, please contact our Order Department at (1-937-299-5594) for help in selecting the correct compound for your particular application.

The Series 250 Coupler and Nipples complement our Series 50, 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

## Series 250 Models 76 & 77 Two-Way Shutoff Valved Nipples and Couplers



### Part Number

**Model No.**  
 6 4 N = Nipple  
 6 5 N = Coupler

**End Cap Size & Style**  
 1 1 = 1/8 NPT, female  
 1 3 = 1/8 NPT, male  
 2 1 = 1/4 NPT, female  
 2 2 = 1/4 SAE, flare, male  
 2 3 = 1/4 NPT, male  
 3 1 = 3/8 NPT, female  
 3 2 = 3/8 SAE, flare, male  
 3 3 = 3/8 NPT, male

**O-Ring Compounds**  
 1 = Neoprene  
 2 = Buna-n (Nitrile)  
 3 = Fluorocarbon  
 5 = For use with R410a refrigerant  
 6 = EPDM  
 7 = For use with HFC-134a refrigerant

### SERVICE BULLETIN

Service Bulletin SB250-76\_77 contains general description, spare parts list, and maintenance information.



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Rev. 01-02-13





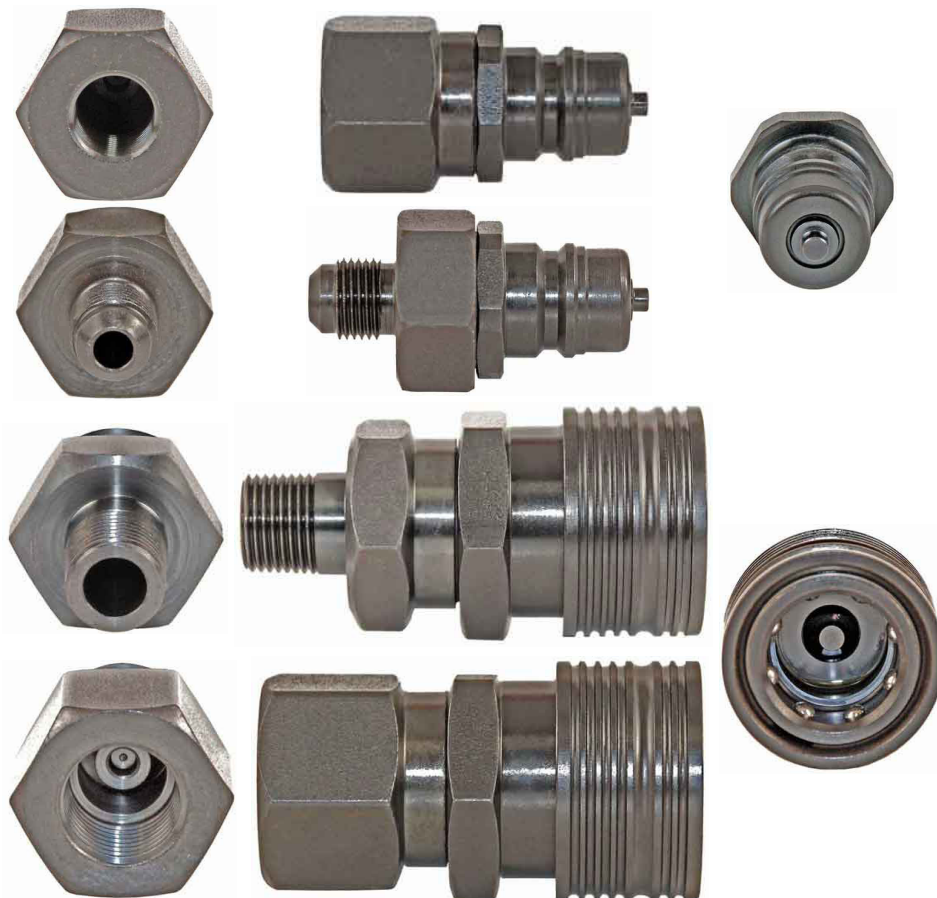
## FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 1.5 Cv

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

# Series 410 Models 66 and 67 Two-Way Shutoff Valved Nipples and Couplers



These tough, lightweight PCU Couplers and Nipples utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses, while minimizing process material loss during coupling and uncoupling.

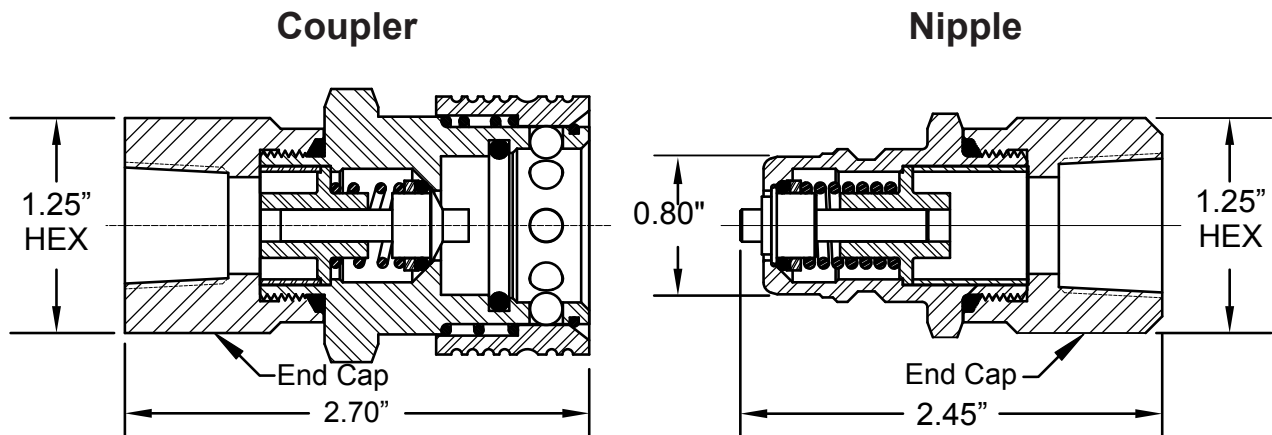
An eight (8) ball detent lock provides instant positive coupling. Simply pull back the grooved locking ring on the Coupler, slide the Coupler over the Nipple and push together until the lock ring snaps to it's "lock position".

Because of the unique design of the Series 410 Couplers and Nipple 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 1000 psig.

The standard Series 410 Coupler and Nipple assembly can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants and R600a. Other applications, which require oils/lubricants, please contact our Order Department (937-299-5594) for help in selecting the correct compound for your particular application.

The Series 410 Coupler and Nipples complement our Series 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

## Series 410 Models 66 & 67 Two-Way Shutoff Valved Nipples and Couplers



### Part Number

#### Model No.

66 = Nipple  
67 = Coupler

#### End Cap Size & Style

2 1 = 1/4 NPT, female  
3 1 = 3/8 NPT, female  
3 2 = 3/8 SAE, flare, male  
3 3 = 3/8 NPT, male  
4 1 = 1/2 NPT, female  
4 2 = 1/2 SAE, flare, male  
4 3 = 1/2 NPT, male  
5 2 = 5/8 SAE flare, male  
6 1 = 3/4 NPT, female  
6 2 = 3/4 SAE, flare, male  
6 3 = 3/4 NPT, male

#### O-Ring Compounds

1 = Neoprene  
2 = Buna-n (Nitrile)  
3 = Fluorocarbon  
5 = For use with R410a  
refrigerant  
6 = EPDM  
7 = For use with HFC-134a  
refrigerant

### SERVICE BULLETIN

Service Bulletin SB410-66\_67 contains general description, spare parts list, and maintenance information.

**Standard Stock Units:** 66311, 67311



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## Series 410 Models 78 and 79

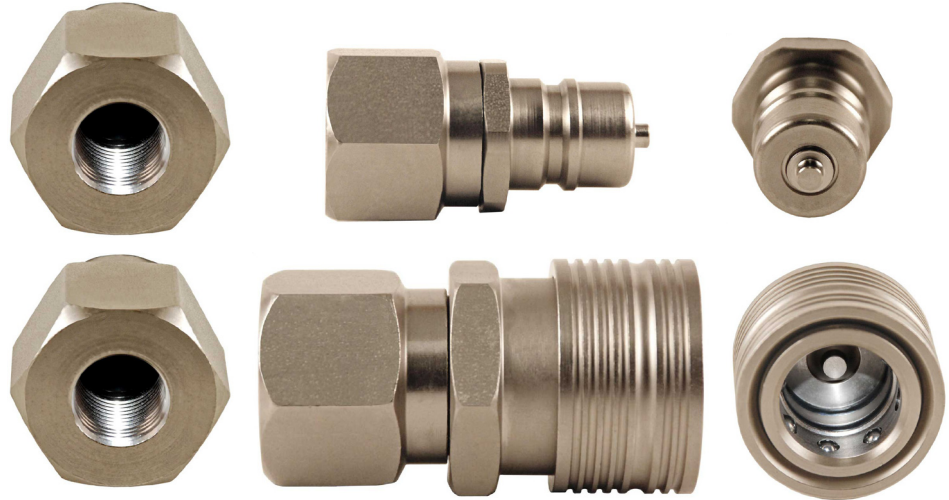
### Two-Way Shutoff Valved Nipples and Couplers

#### FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 1.5 Cv

#### APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen



Models 78 and 79 Series 410 is the same flow and internal components as Models 66 and 67 however it is NOT interchangeable. Use these models when there are two fluids or more which should not be mixed. Models 78 and 79 are nickel plated for color difference from Models 66 and 67 which are black in color.

These tough, lightweight PCU Couplers and Nipples utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses, while minimizing process material loss during coupling and uncoupling.

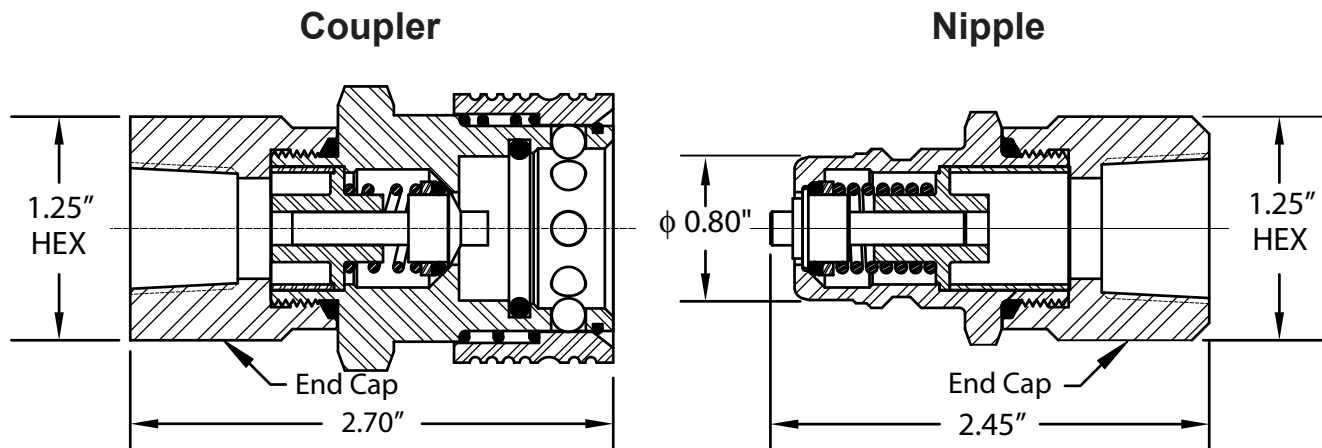
An eight (8) ball detent lock provides instant positive coupling. Simply pull back the grooved locking ring on the Coupler, slide the Coupler over the Nipple and push together until the lock ring snaps to it's "lock position".

Because of the unique design of the Series 410 Couplers and Nipple 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 1000 psig.

The Series 410 Coupler and Nipple assembly can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants and R600a. Other applications, which require oils/lubricants, please contact our Order Department (937-299-5594) for help in selecting the correct compound for your particular application.

The Series 410 Coupler and Nipples complement our Series 500, 91, and 93 Tube Quick Connect Couplers, (TQC) to permit unrestricted flow.

## Series 410 Models 78 & 79 Two-Way Shutoff Valved Nipples and Couplers



Part Number		
Model No.	End Cap Size & Style	O-Ring Compounds
7 8 N = Nipple	2 1 = 1/4 NPT, female	1 = Neoprene
7 9 N = Coupler	3 1 = 3/8 NPT, female	2 = Buna-n (Nitrile)
	3 2 = 3/8 SAE, flare, male	3 = Fluorocarbon
	3 3 = 3/8 NPT, male	5 = For use with R410a refrigerant
	4 1 = 1/2 NPT, female	6 = EPDM
	4 2 = 1/2 SAE, flare, male	7 = For use with HFC-134a refrigerant
	4 3 = 1/2 NPT, male	
	5 2 = 5/8 SAE flare, male	
	6 1 = 3/4 NPT, female	
	6 2 = 3/4 SAE, flare, male	
	6 3 = 3/4 NPT, male	

### SERVICE BULLETIN

Service Bulletin SB410-78\_79 contains general description, spare parts list, and maintenance information.

**Standard Stock Units:** 78N317, 79N317



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## FEATURES

- Leak-Free, Positive Locking
- Quick Connect Disconnect
- Valved Shutoff
- Adaptability
- 1" Straight Tube Length

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

# Series 50 TQC Tube Quick-Connect Coupler For 3/16", 1/4", 5/16" and 3/8" O.D. Tubes



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, in a temperature range of 0° to 250° F.

For a valved coupler, the "TQC" Coupler is shown with our Series 250 Nipple as an integral assembly.

The Production Control Units Series 50 "TQC" is designed for easy installation onto the end of straight tubing. Slide the coupler onto the tubing until seated and push down on the mechanical lock (lever) to make a positive seal. A cam-locking device grips uniformly-firmly but gently-without damage to steel, copper, brass or plastic tubing.

The tube seal will accept tubing out-of-roundness conditions up to 2%. Long-life seal reduces connector maintenance costs.

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

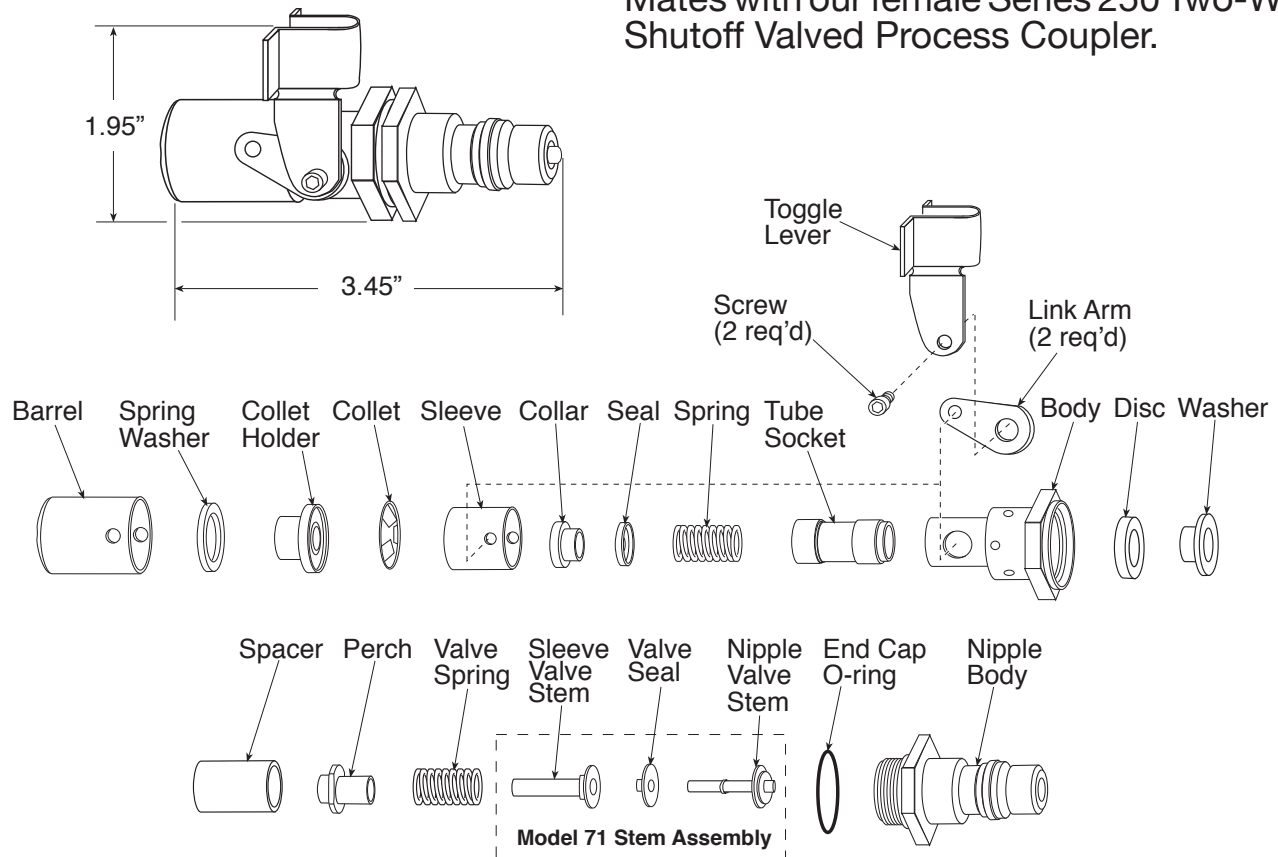
**SAFE**-Built-in valve automatically vents system pressure before the connector can be removed from the tube for operator safety. Blow-off or loss of seal connection by accidental bumping is eliminated.

**FLEXIBLE**-Internal parts are quickly interchangeable allowing the same connector body to fit all four tube sizes.

When vacuum and ester oils are being used, please contact our Order Department at (1-937-299-5594) for help in selection of the correct elastomer for your particular application.

# Series 50 TQC Tube Quick-Connect Coupler Assemblies

Mates with our female Series 250 Two-Way Shutoff Valved Process Coupler.



Part Number	50		
Series 50 TQC			
<b>Tube Size</b>		<b>End Cap Size &amp; Style</b>	<b>O-Ring Compounds</b>
3 = 3/16"		1 = 1/4" NPT, female	1 = Neoprene
4 = 1/4"		2 = 1/4" SAE, flare, male	2 = Buna-n (Nitrile)
5 = 5/16"		3 = 1/4" NPT, male	3 = Fluorocarbon (Viton)
6 = 3/8"		5 = 3/8" NPT, female	6 = EPDM
		6 = Series 250 Nipple, Model 61	7 = For use with HFC-134a refrigerant
		7 = Series 250 Nipple, Model 71	
		8 = 3/8" NPT, male	
		M6 = Series 250 Nipple, Model 64	

\* Special end cap adapters available at extra cost.

\*\* Metric sizes available.

## SERVICE BULLETIN

Service Bulletin SB50-1 contains general description, spare parts list, and maintenance information.



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Rev. 03-11-10



## Series 91 TQC Tube Quick-Connect Coupler

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### FEATURES

- Quick Tube Connection
- Automated or Manual Applications
- Low Operating Force
- Applications for Refrigerant, Oil, Vacuum, Air & other Fluids
- Repairable, Saves Costs
- Positive Locking
- For 1/4", 5/16" & 3/8" Tube Sizes
- 1 1/8" Straight Tube Engagement



The Production Control Units Series 91 Tube Quick-Connect (TQC) Coupler is designed for easy installation onto the end of straight tubing either manually or by use of automated equipment.

For manual operation, slide the coupler onto the tubing until seated and pull the sleeve back to make a positive, leak-free seal. To release, simply push the sleeve forward. The field-proven cam locking device grips uniformly-firm but gently without damage to steel, copper, brass or plastic tubing.

The long-life tube seal reduces coupler maintenance costs and can easily be replaced. This seal accepts out-of-roundness conditions up to 2%.

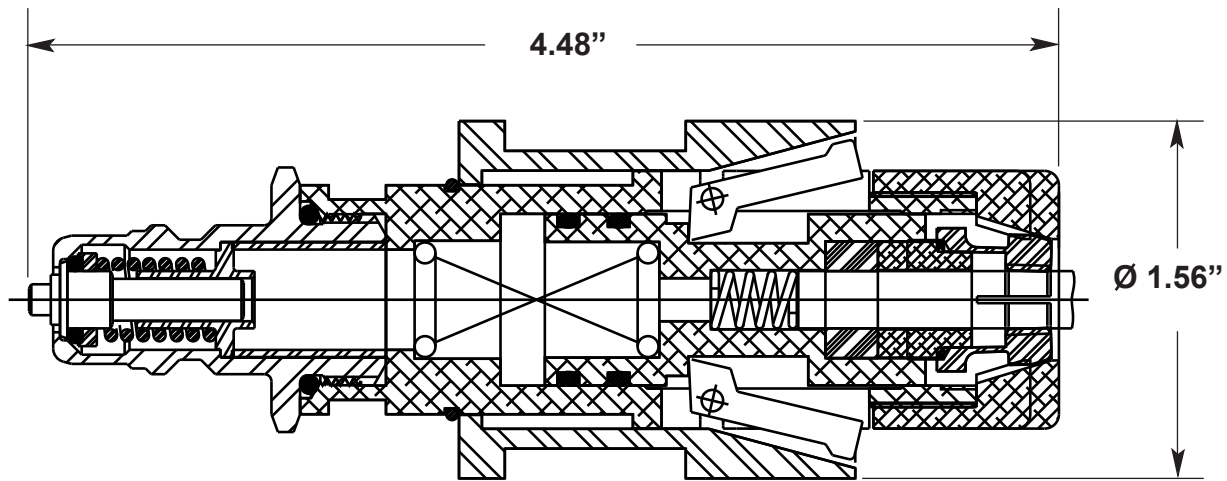
The Series 91 TQC holds pressures from 25 microns up to 500 psi, proof pressure 4000 psig.

A built-in valve automatically vents system pressure before the coupler can be removed from the tube for operation safety. Blow off or loss of sealed connections are eliminated.

Five internal parts are quickly interchangeable allowing the same connector body to fit all three tube sizes. This simple interchangeability allows for changing refrigerants and oils.

Seals are available in Neoprene, Nitrile, and Fluorocarbon for specific applications.

## Series 91 TQC Tube Quick-Connect Coupler Assemblies



Part Number		
Series 91 TQC		
<u>Tube Size</u>	<u>End Cap Size &amp; Style</u>	<u>O-Ring Compounds</u>
4 = 1/4" O.D.	1 = 1/4 NPT, female	1 = Neoprene
5 = 5/16" O.D.	2 = 1/4 SAE, flare, male	2 = Buna-n (Nitrile)
6 = 3/8" O.D.	3 = 1/4 NPT, male	3 = Fluorocarbon
	4 = 3/8 SAE, flare	6 = EPDM
	5 = 3/8 NPT, female	7 = For use with HFC-134a refrigerant
	6 = Series 250 Nipple, Model 61	
	7 = Series 250 Nipple, Model 71	
	8 = 3/8 NPT, male	

### SERVICE BULLETIN

Service Bulletin SB91-1 contains general description, spare parts list, and maintenance information.

Manufactured under Patent Number: 5,439,258



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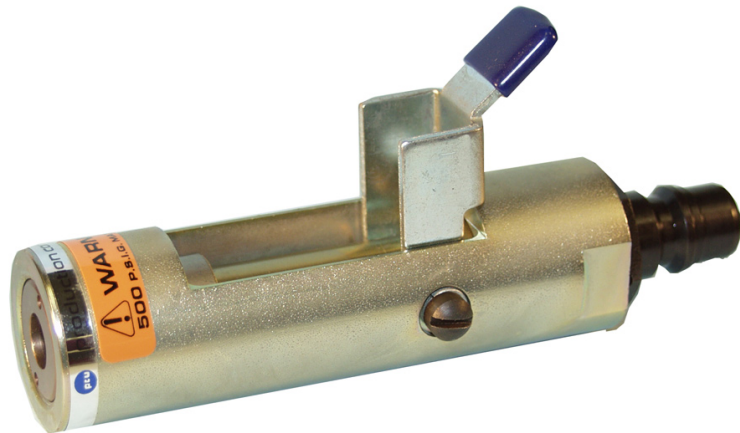
## Series 93 Tube Quick-Connect Coupler

### FEATURES

- Leak Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- 1" Straight Tube Length Engagement

### APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen



The Production Control Units Series 93 T.Q.C. is designed for easy installation onto the end of either straight or belled type tubing. With an engagement length of one (1"), the actual gripping to sealing length is three fourths (3/4") of an inch. Slide the coupler onto the tubing until seated and then push down the camming lever allowing the shuttle to drive forward causing the collet to grip and tubular seal to seal the process tube for the evacuation, charging or pressure testing.

The Series 93 T.Q.C. holds pressures from 25 microns vacuum up to 1000 PSIG with a minimum proof pressure of 4000 PSIG.

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

a temperature range of 0° to 250° F. Safety from accidental blow-off is maintained by the location of the camming lever. The lever is down inside the coupler body and can only be operated by manually overcoming body spring and charge pressure.

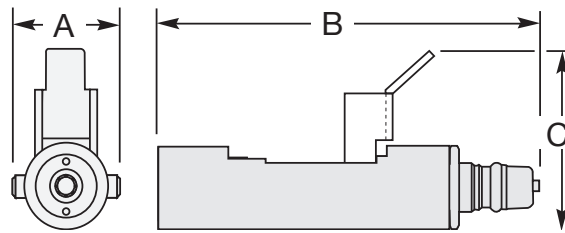
The PCU Series 250, 410 or the ISO "B" Nipple is completely serviceable by unscrewing the Nipple from the back side of the coupler. Any other end cap can be used in the same manner.

The tube seal is contained in the collet closer. To replace this seal simply remove the collet, collet closer, and seal. Replace the seal and install components in reverse order.

All Series 93 T.Q.C's are built with Neoprene as the standard elastomer. However, we offer Buna-N, Fluorocarbon, EPDM and many other seal materials to suit your application.



# Series 93 Tube Quick-Connect Coupler



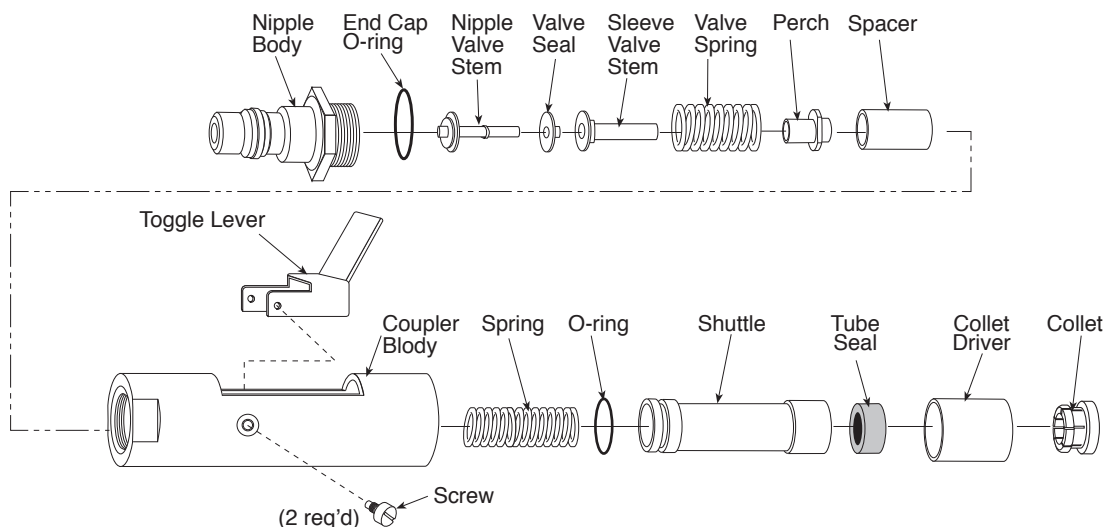
Size	A	B	C
1/4", 5/16", 3/8", 7/16", 1/2"	1.25"	5.86"	2.00"
5/8", 3/4"	1.50"	5.86"	2.03"
7/8", 1"	1.88"	6.35"	2/26"

**Part Number** 93

**Series**

Styles	Tube Size (O.D.)	O-Ring Compounds	End Cap Size & Style
1 = Flow Thru	04 = 1/4"	1 = Neoprene	01 = No Flow
4 = No Flow	05 = 5/16"	2 = Buna-n (Nitrile)	03 = Series 410 Nipple (No Shut-off Valve)
	06 = 3/8"	3 = Fluorocarbon (Viton)	25 = Series 252 Nipple
	07 = 1/2"	6 = EPDM	41 = Series 253 Nipple
	08 = 5/8"	7 = For use with HFC-134a Refrigerant	61 = Series 250 Model 61 Nipple
	09 = 3/4"		66 = Series 410 Nipple
	10 = 1"		71 = Series 250 Model 71 Nipple
	19 = 7/8"		
	20 = 7/16"		

\* PCU will customize to fit your tube size and end cap requirements. Please contact PCU Engineering.



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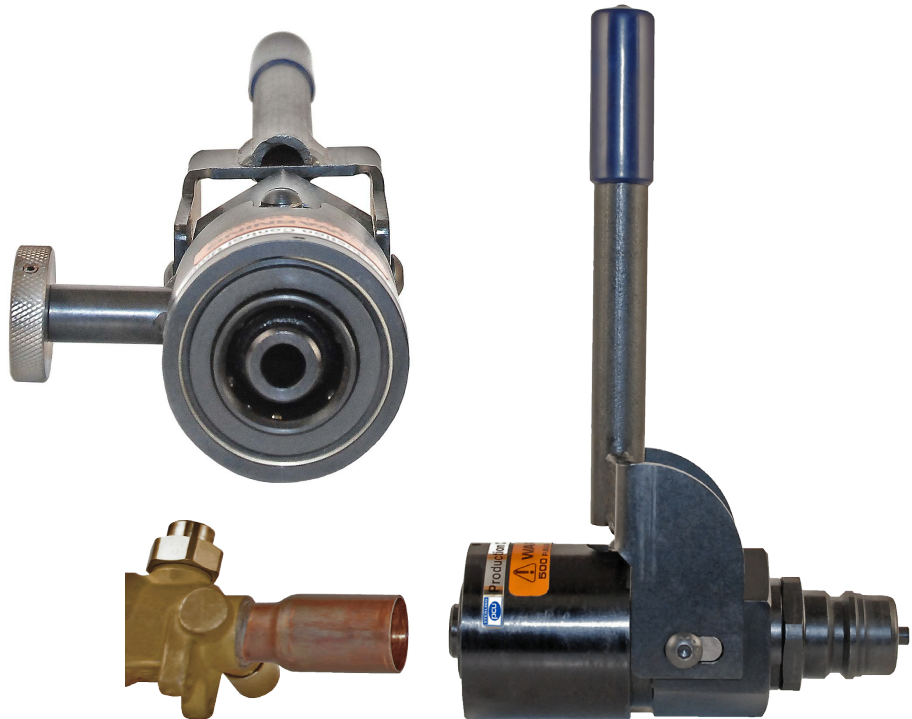
## FEATURES

- Positive Locking
- Tight Seal
- Valve Shutoff
- Adaptability
- Belled Tubing
- Optional Safety Latch
- Pressure from 25 microns to 1000 PSIG

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

## Series 98 TQC Tube Quick-Connect Coupler



The Production Control Units Series 98 TQC is designed for easy installation onto belled tubing. Used for evacuation, pressure testing, or refrigeration processing.

Slide the Series 98 Coupler onto the tube until reaching the internal stop. Rotate the handle, driving shuttle forward, causing the tube to be sealed for processing.

These tough PCU couplers utilize heat-treated parts for long life and interchangeability. They provide a large unrestricted flow for a variety of production uses.

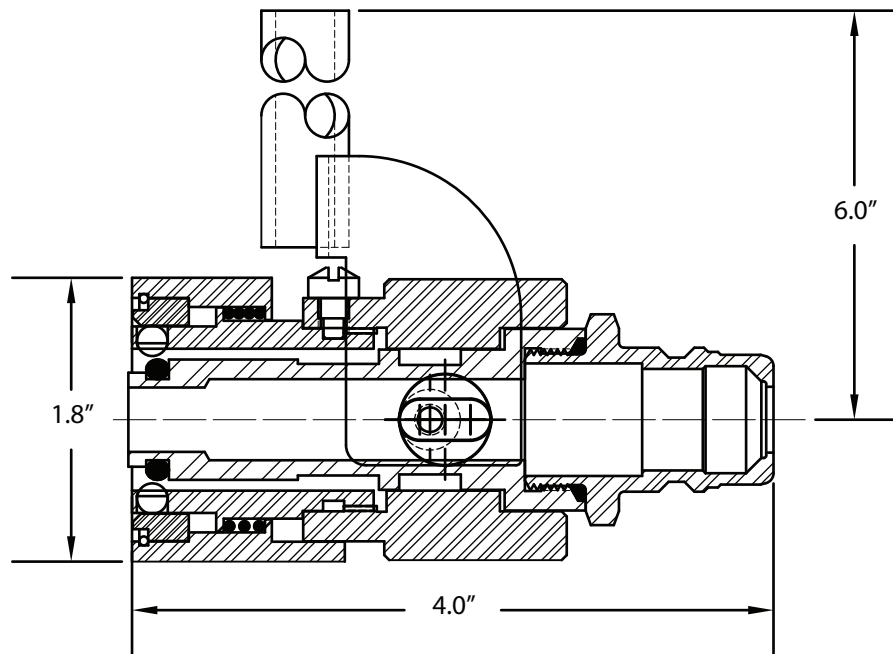
The Series 98 TQC is offered with a wide variety of end cap configuration. We recommend the PCU Series 250 or 410 Nipple assembly for best

results. We also offer the ISO “B” nipples for our customers who require this configuration. Contact our Order Department at (1-927-299-5594) for your application requirements.

All Series 98 TQC's are built with Buna-N as the standard elastomer. However we offer Neoprene, Fluorocarbon, EPDM and other seal materials to suit your application. The standard seal in the Series 98 may be used in a temperature range of 0 to 250 degrees F.

Optional safety latch provides the secure operation if the coupler handle is accidentally rotated to the unlatch position. The coupler remains latched until operator disengages safety latch.

## Series 98 TQC Tube Quick-Connect Coupler Assemblies



Part Number			
	9	8	-
Series 98 Coupler			
Styles	Tube Size	O-Ring Compounds	End Cap Size & Style
1 = Flow Thru	0 9 = 3/4"	1 = Neoprene	0 1 = No Flow
2 = No Flow (Dead Head)	1 9 = 7/8"	2 = Buna-n (Nitrile)	0 3 = Series 410 Nipple (No Shut-off Valve)
		3 = Fluorocarbon	4 1 = Series 253 Nipple
		6 = EPDM	6 6 = Series 410 Nipple
		7 = For use with HFC-134a Refrigerant	

\* Please consult PCU Engineering for Custom Made Series 98 to fit your fitting. (Sizes from 3/8" to 2")



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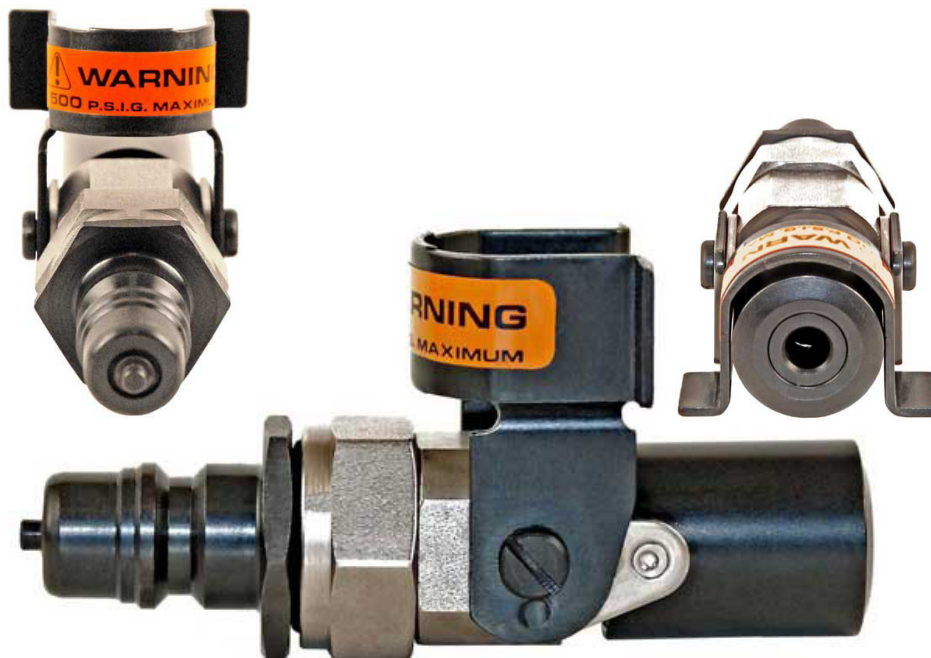
## FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Valved Shutoff
- Adaptability
- 13/16" Straight Tube Engagement
- Long Life
- Repairable, Saves Cost

## APPLICATIONS

- Vacuum/Air
- Refrigerants
- Water
- Oil
- Helium
- Nitrogen

## Series 500 TQC Tube Quick-Connect Coupler For 3/16", 1/4", 5/16" and 3/8" O.D. Tubes



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.

For a valved coupler, the "TQC" Coupler is shown with our Series 250 Nipple as an integral assembly.

The Production Control Units Series 500 "TQC" is designed for easy installation onto the end of straight tubing. Slide the coupler onto the tubing until seated and push down on the mechanical lock (lever) to make a positive seal. A cam-locking device grips uniformly-firmly but gently-without damage to steel, copper, brass or plastic tubing.

The tube seal will accept tubing out-of-roundness conditions up to 2%. Long-life seal reduces connector maintenance costs.

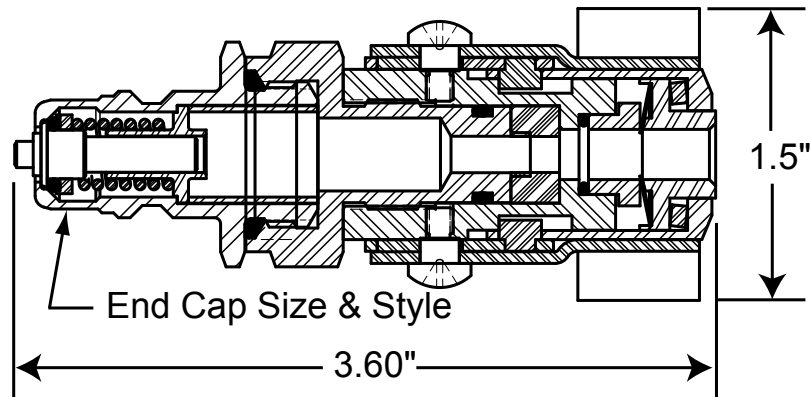
**STRONG**-Holds pressures from 25 microns up to 500 psig, minimum proof pressure 4000 psig.

**SAFE**-Built-in valve automatically vents system pressure before the connector can be removed from the tube for operator safety. Blow-off or loss of seal connection by accidental bumping is eliminated.

**FLEXIBLE**-Internal parts are quickly interchangeable allowing the same connector body to fit all four tube sizes.

When vacuum and ester oils are being used, please contact our Order Department (1-937-299-5594) for help in selection of the correct elastomer for your particular application.

## Series 500 TQC-Tube Quick-Disconnect Coupler



Part Number			5	0				
Series 500 TQC								
Tube Size			End Cap Size & Style			O-Ring Compounds		
0 6	= 3/16"		1	= 1/4 NPT, female		1	= Neoprene	
0 8	= 1/4"		2	= 1/4 SAE, flare, male		2	= Buna-n (Nitrile)	
1 0	= 5/16"		3	= 1/4 NPT, male		3	= Fluorocarbon	
1 2	= 3/8"		4	= 3/8 SAE, flare, male		5	= For use with R410a refrigerant	
			5	= 3/8 NPT, female				
			6	= Series 250 Nipple, Model 61		6	= EPDM	
			7	= Series 250 Nipple, Model 71		7	= For use with HFC-134a refrigerant	
			8	= 3/8 NPT, male				
			M6	= Series 250 Nipple, Model 64				

### SERVICE BULLETIN

Service Bulletin SB500-1 contains general description, spare parts list, and maintenance information.



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## FEATURES

- Leak-Free, Positive Locking
- Quick Connect/Disconnect
- Adaptability
- Long Life
- Repairable, Saves Cost
- Typical 0.24 Cv

## APPLICATIONS

- Refrigerants
- Vacuum/Air
- Oil
- Water
- Mass Spectrometer Applications
- Helium
- Nitrogen

# 1/4" Schrader Couplers Models 24 and 88



**PN #24051**



**PN #88222**



**PN #88612**

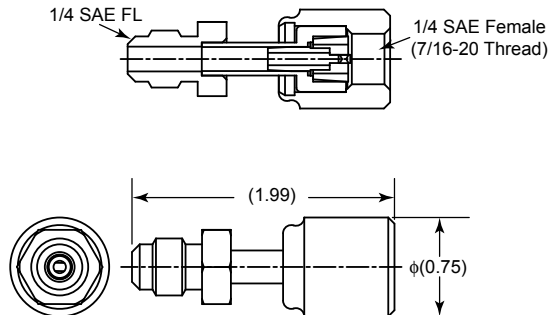
These tough, lightweight PCU Couplers utilize heat-treated parts for interchangeability and long life. They provide a large unrestricted flow rate for a variety of production uses.

Because of the unique design of the Models 24 and 88 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.

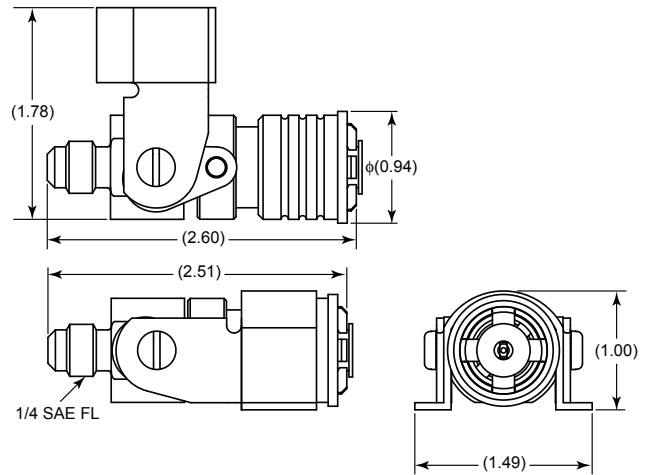
The standard Models 24 and 88 assemblies can be built with a variety of seal compounds to satisfy your application. Neoprene compound is generally used for R-22, R404a, R410a and compressed air. Buna-N is generally used for HFC-134a with lubricants. Other applications, which require oils/lubricants.

For other applications, which require oils/lubricants, or for help in selecting the correct compound for your particular application, please contact our Order Department at (1-937-853-1716).

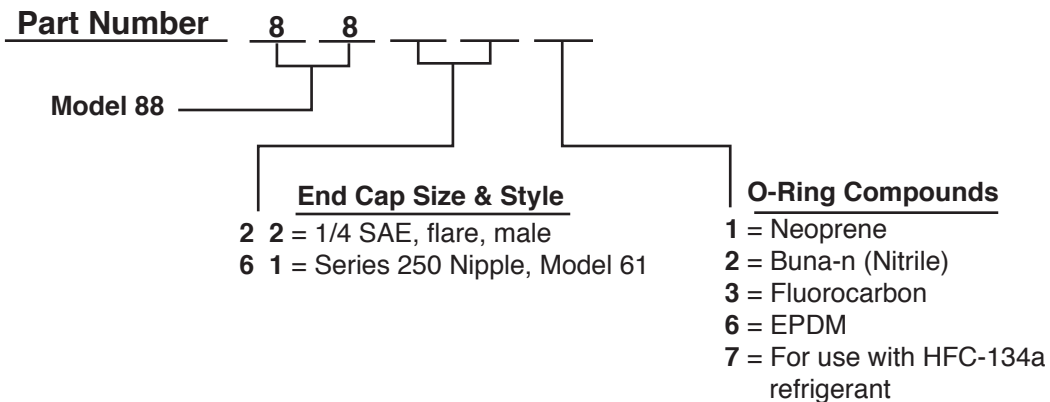
# 1/4" Schrader Couplers Models 24 and 88



**PN #24051**



**PN #88222**



\* Please contact PCU for 1/4" Schrader valve jaw configuration.



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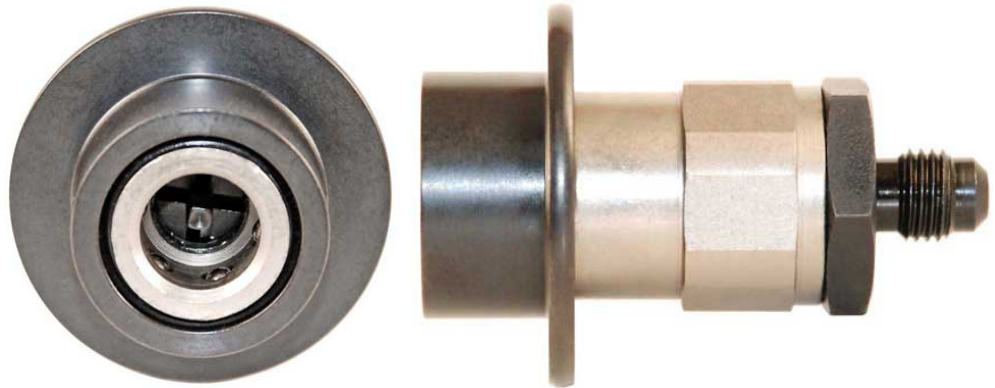


## Series HFC-134a BalLoc Model 86 Couplers

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### FEATURES

- Quick Connect/ Disconnect
- Minimum Refrigerant Loss
- Vacuum
- HFC-134a
- SAE J639 Compatible



The Production Control Units Series HFC 134a BalLoc Coupler, Model 86, is designed for easy installation onto the SAE J639 low side process fitting. Use the Model 86 Coupler for evacuation or refrigerant charging with de minimus refrigerant loss to atmosphere from the Coupler.

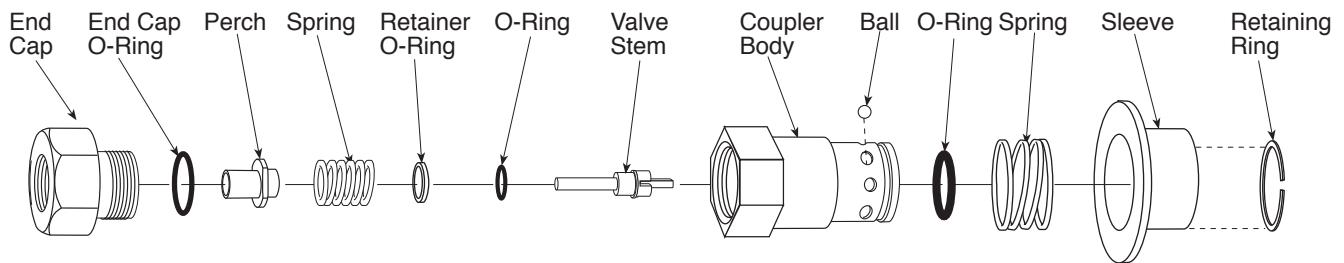
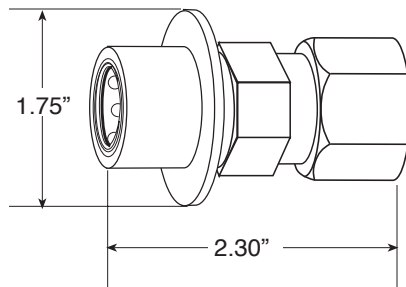
These tough, lightweight PCU Couplers utilize heat-treated parts for long life. A six-ball detent lock provides instant positive coupling. Simply pull back on the locking ring on the Coupler, slide the Coupler over the low side fitting and release the locking ring to achieve a positive, leak free, seal.

The PCU Model 86 Coupler compliments our Pneumate Series 101 Model 86 powered Coupler which is used when automatic disconnect is required.

Coupler can be converted to a vented coupler just by changing the stem. Contact our order department for stem or coupler part number.

Contact our Order Department at (937-299-5594) to find out how our PCU Process Couplers can save you time and money.

## Series HFC-134a BalLoc Model 86 Couplers



### Part Number

Model No.  
86 = Series

End Cap Size & Style  
2 1 = 1/4 NPT, female  
2 2 = 1/4 SAE, flare, male  
2 3 = 1/4 NPT, male  
3 1 = 3/8 NPT, female  
3 2 = 3/8 SAE flare, male  
3 3 = 3/8 NPT, male

O-Ring Compounds  
1 = For HFC 134a Refrigerant  
2 = Buna-n (Nitrile)  
3 = Fluorocarbon  
6 = EPDM  
9 = Neoprene

### SERVICE BULLETIN

Service Bulletin **SB134aBL-86LS** contains general description, spare parts list, and maintenance information.

**Standard Stock Couplers: 86221**

**See Product Bulletin PB046 for PCU Standard Test Bottle Fittings.**



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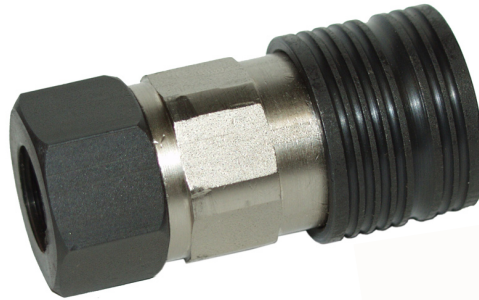


## FEATURES

- Quick Connect/ Disconnect
- Minimum Refrigerant Loss
- HFC-134a
- SAE J639

## Series HFC-134a BalLoc Model 87 Couplers

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With or without flange.



The Production Control Units Series HFC 134a BalLoc Coupler, Model 87, is designed for easy installation into the SAE J639 high side process fitting. Use the Model 87 Coupler for evacuation or refrigerant charging with de minimis refrigerant loss to atmosphere from the Coupler.

These tough, lightweight PCU Couplers utilize heat-treated parts for long life. A six-ball detent lock provides instant positive coupling. Simply pull back on the locking ring on the Coupler, slide the Coupler

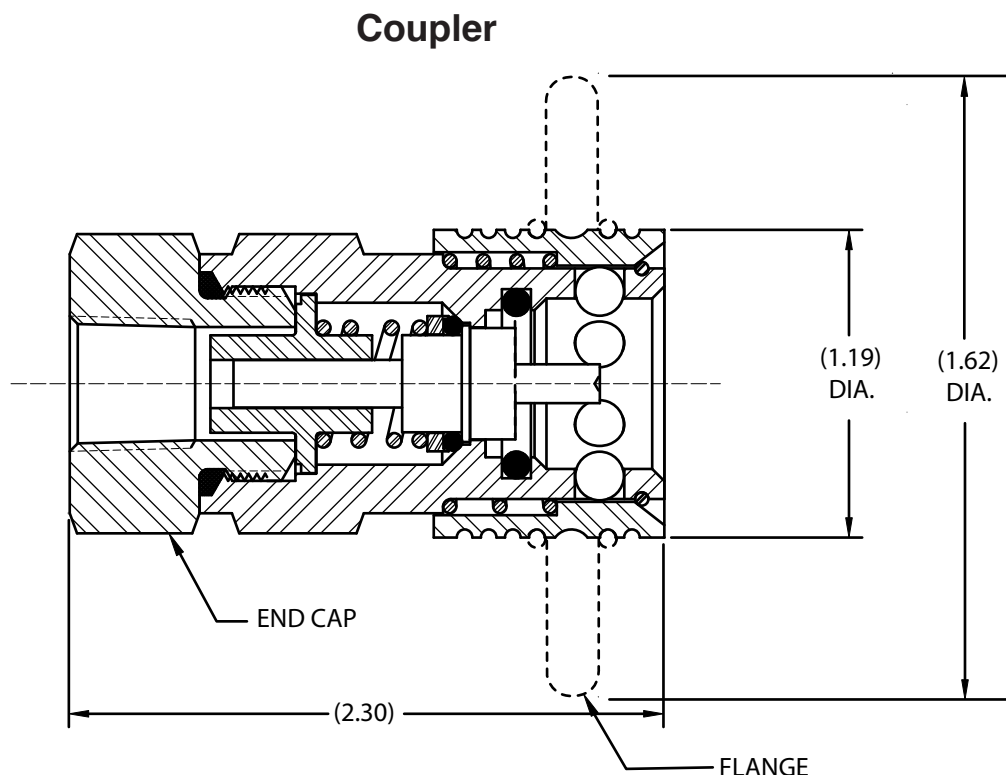
over the low side fitting and release the locking ring to achieve a positive, leak free, seal.

The PCU Model 87 Coupler compliments our Pneumatic Series 101 Model 87 Powered Coupler which is used when automatic disconnect is required.

Contact our Order Department at (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.



## Series HFC-134a BalLoc Model 87 Coupler



### Part Number

Model No.	End Cap Size & Style	O-Ring Compounds	Flange
87 = Series	2 1 = 1/4 NPT, female 2 2 = 1/4 SAE, flare, male 2 3 = 1/4 NPT, male 3 1 = 3/8 NPT, female 3 2 = 3/8 SAE flare, male 3 3 = 3/8 NPT, male	1 = For HFC 134a Refrigerant 2 = Buna-n (Nitrile) 3 = Fluorocarbon 6 = EPDM 9 = Neoprene	Blank = No Flange FL = with Flange

### SERVICE BULLETIN

Service Bulletin **SB134aBL-87HS** contains general description, spare parts list, and maintenance information.

**Standard Stock Couplers:** 87211 or 87221

**See Product Bulletin PB046 for PCU Standard Test Bottle Fittings.**



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## Pneumate Series 100 Model 86 Powered Coupler

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### FEATURES

- Vacuum Only
- Automatic disconnect capability
- Automatic operation, upon connection to fitting
- High vacuum flow rates
- Air operated
- Lightweight



**J639 Low Side  
Vacuum Only**

The Production Control Units Pneumate Powered Coupler is the interface adapter for evacuation systems. The Pneumate Process Coupler is designed for easy installation on to the HFC-134a low side process fittings. Use the Pneumate, Part Number 102000, for evacuation only. With the added benefit of automatic disconnect at cycle completion. For refrigerant charging use our Series 101 Model 86 Powered Coupler, Part Number 109006-001. (See Product Bulletin PB013-CP.

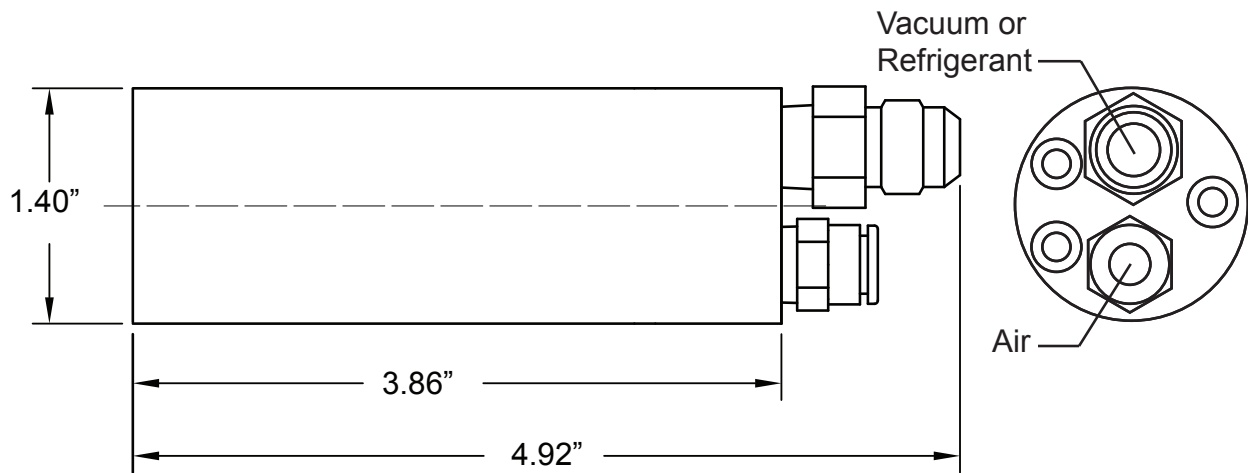
Coupler operation is controlled automatically by the process equipment. The operator only has to locate the Coupler on the process fitting. After cycle completion the process fitting seal is reseated and the coupler disconnects.

The clamping mechanism used is the time proven ball lock method. The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Pneumate Process Charging Coupler can be easily adapted to all PCU "PLC" or relay controlled charging equipment or application to other competitive evacuation systems. Electrical controlled pendant or mechanical air valve available to suit your application.

Call our Order Department at (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.

# Pneumate Series 100-Model 86 Powered Coupler



**STANDARD STOCK PART NUMBER: 102000**

## TECHNICAL SPECIFICATIONS:

Weight . . . . . 1.15 lbs (.5 kg)

Vacuum range . . . . . ATM - 10 microns  
Vacuum flow . . . . . 2.8 SCFM

Vacuum port fitting. . . . . 3/8" JIC Flare

Air pilot. . . . . Clamp Air  
Air supply pressure . . . . . 60 PSIG (4.2 kg/cm<sup>2</sup>)  
Air port fitting . . . . . 1/4" dia. one touch connectors

Process fitting compatibility . . . . . SAE J639  
Flow Rate . . . . . 0.41 Cv  
Stem extension . . . . . 7.8 mm to 8.3 mm  
Process fitting nose seal . . . . . Molded  
Process fitting clamp system. . . . . PCU BalLoc

Oil compatibility . . . . . Polyolester or PAG

## PATENTS:

This coupler is manufactured under U.S. Patent No. 4,805,417

\* Please contact PCU Engineering for custom power couplers to fit your application.



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## Pneumate Series 101 Model 86 Powered Coupler

### FEATURES

- Evacuation & Charging
- Automatic disconnect capability
- Automatic operation, upon connection to fitting
- High vacuum and refrigerant flow rates
- Air operated
- Lightweight



**J639 Low Side  
Vacuum & Charge**



The Production Control Units Pneumate Powered Coupler is the interface adapter for evacuation systems. The Pneumate Process Coupler is designed for easy installation on to the HFC-134a low side process fittings. Use the Pneumate Part Number 109006-001, for evacuation or refrigerant charging, with de minimus refrigerant loss to atmosphere from the coupler with the additional benefit of automatic disconnect at cycle completion.

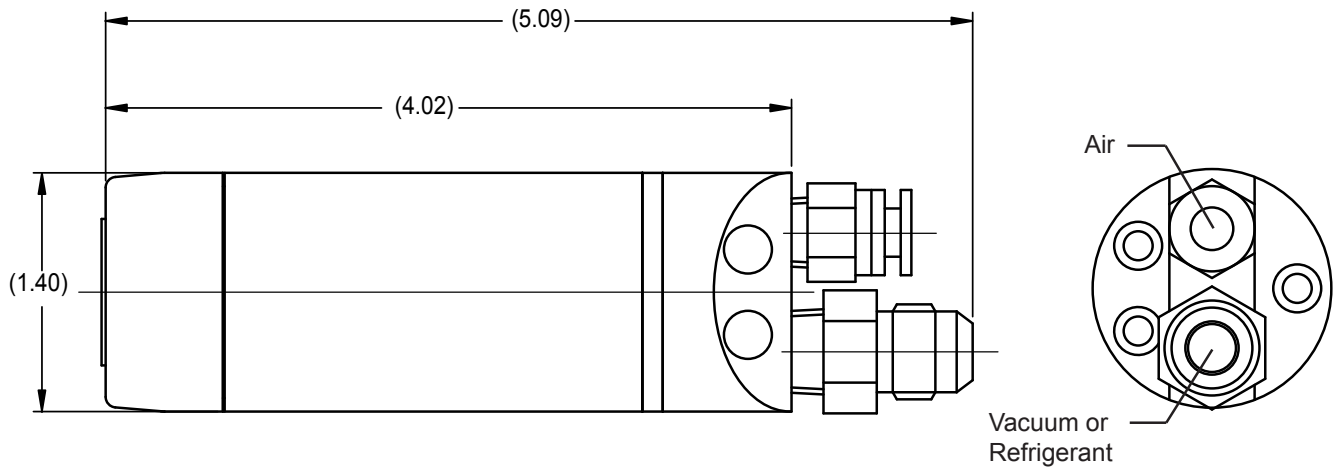
Coupler operation is controlled automatically by the process equipment. The operator only has to locate the Coupler on the process fitting. The process equipment then causes the coupler to clamp, seal, and initiate the cycle including evacuation, vacuum check or refrigerant charging. After cycle completion the process fitting seal is reseated and the coupler disconnects.

The clamping mechanism used is the time proven ball lock method. The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Pneumate Process Charging Coupler can be easily adapted to all PCU "PLC" or relay controlled charging equipment or application to other competitive evacuation systems. Electrical controlled pendant or mechanical air valve available to suit your application.

Contact our Order Department (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.

# Pneumate Series 101-Model 86 Powered Coupler



**STANDARD STOCK PART NUMBER: 109006-001**

## TECHNICAL SPECIFICATIONS:

Weight ..... 1.15 lbs (0.5 kg)

Vacuum range ..... ATM - 10 microns  
Vacuum flow ..... 2.8 SCFM  
Refrigerant HFC-134a at 600 PSIG max (42kg/cm<sup>2</sup>)  
Refrig/Vacuum port fitting ..... 3/8" JIC Flare

Air pilot..... Clamp Air  
Air supply pressure ..... 60 PSIG (4.2 kg/cm<sup>2</sup>)  
Air port fitting ..... 1/4" dia. one touch connectors  
Process fitting compatibility ..... SAE J639  
Flow Rate ..... 0.41 Cv

Stem extension..... 7.8mm to 8.3mm  
Process fitting nose seal..... M o l d e d  
Process fitting clamp system..... PCU BaILoc

Oil compatibility ..... Polyolester or PAG

\* Please contact PCU Engineering for custom power couplers to fit your application.



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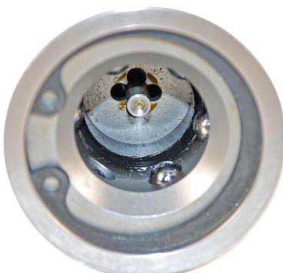




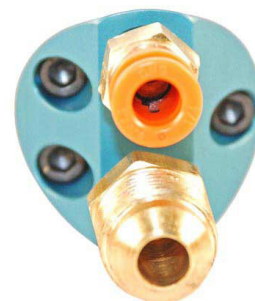
## Pneumate Series 101 Model 87 Powered Coupler

### FEATURES

- Minimum refrigerant loss
- Automatic disconnect capability
- Automatic operation, upon connection to fitting
- High vacuum and refrigerant flow rates
- Air operated
- Lightweight



**J639 High Side  
Vacuum & Charge**



Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Production Control Units Pneumate Powered Coupler is the interface adapter for a refrigerant charging or evacuation system. The Pneumate Process Coupler is designed for easy installation on to the HFC-134a high side process fittings. Use the Pneumate for evacuation or refrigerant charging, with de minimus refrigerant loss to atmosphere from the coupler with the additional benefit of automatic disconnect at cycle completion.

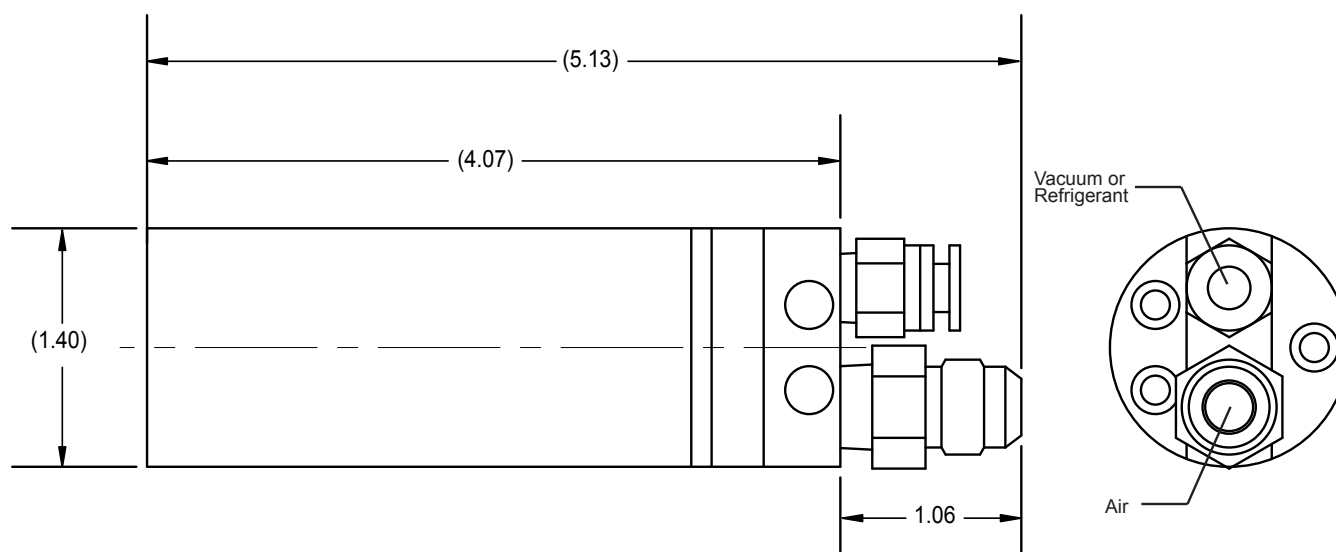
Coupler operation is controlled automatically by the process equipment. The operator only has to locate the Coupler on the process fitting. The process equipment then causes the coupler to clamp, seal, and initiate the cycle including evacuation, vacuum check or refrigerant charging. After cycle completion the process fitting seal is resealed and the coupler disconnects.

The clamping mechanism used is the time proven ball lock method. The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Pneumate Process Charging Coupler can be easily adapted to all PCU "PLC" or relay controlled charging equipment. Application to other equipment, including competitive charging system, can also be accomplished. Electrical controlled pendant or mechanical air valve available to suit your application.

Contact our Order Department at (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.

## Pneumate Series 101-Model 87 Powered Coupler



**STANDARD STOCK PART NUMBER: 102750-001**

### TECHNICAL SPECIFICATIONS:

Weight.....1.15 lbs (.5 kg)

Vacuum range .....ATM - 10 microns  
Vacuum flow.....2.8 SCFM

Refrigerant..... HFC-134a  
at 600 PSIG max. (42 kg/cm<sup>2</sup>)  
Refrigerant/Vacuum port fitting.....3/8" JIC Flare

Air pilot ..... Clamp Air  
Air supply pressure.....60 PSIG (4.2 kg/cm<sup>2</sup>)  
Air port fitting ..... 1/4" dia. one touch connectors

Process fitting compatibility.....SAE J639  
Flow Rate.....0.41 Cv  
Stem extension.....7.8mm to 8.3mm  
Process fitting nose seal.....Molded  
Process fitting clamp system..... PCU BalLoc

Oil compatibility.....Polyolester or PAG

### PATENTS:

This coupler is manufactured under U.S. Patent No. 4,805,417

\* Please contact PCU Engineering for custom power couplers to fit your application.



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## FEATURES

- Evacuation & Charging
- Automatic disconnect capability
- Automatic operation, upon connection to fitting
- High vacuum and fluid flow rates
- Air operated
- Light weight

## Series 107 Models 250 and 410 Powered Coupler



**Model 250**



**Model 410**

The Production Control Units Series 107 Powered Coupler is the interface adapter for evacuation and charging systems. The Pneumate Process Coupler is designed for easy installation on to Series 250 or Series 410 Nipple.

Coupler operation is controlled automatically by the process equipment. The operator only has to locate the Coupler on the process fitting. The process equipment then causes the coupler to clamp, seal, and initiate the cycle including evacuation, vacuum check or refrigerant charging. After cycle completion the process fitting seal is reseated and the coupler disconnects.

The clamping mechanism used is the time proven ball lock method.

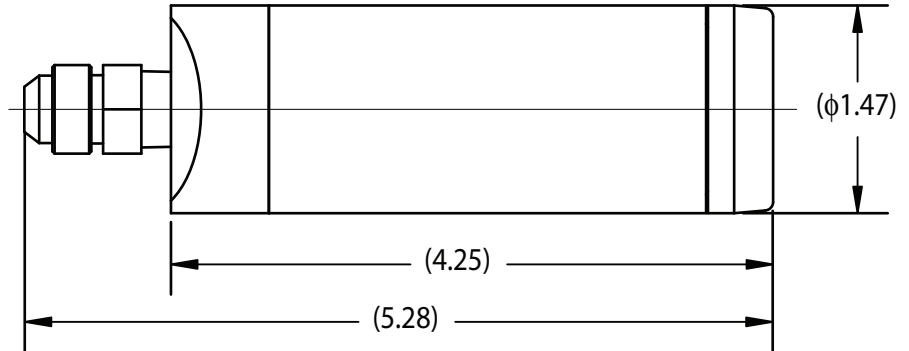
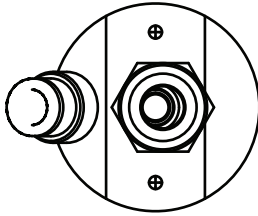
The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Pneumate Process Charging Coupler can be easily adapted to all PCU "PLC" or relay controlled charging equipment or application to other competitive evacuation systems. Electrical controlled pendant or mechanical air valve available to suit your application.

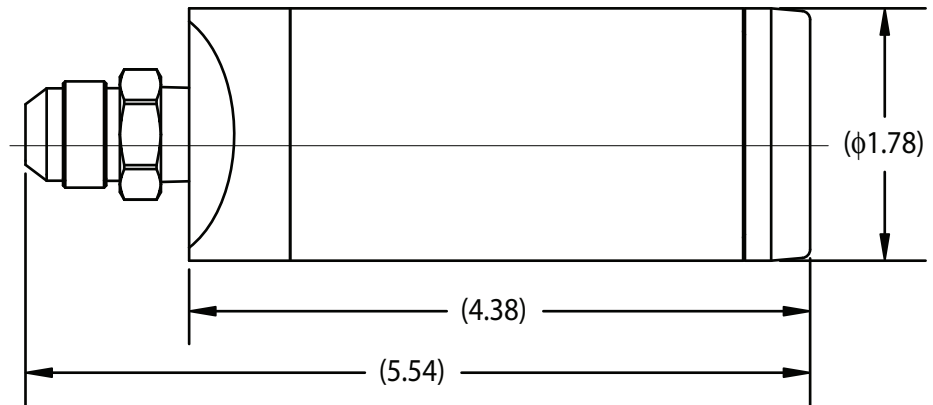
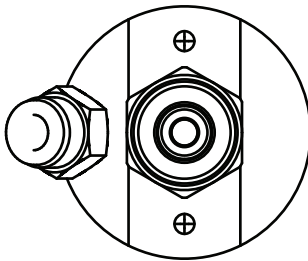
Contact our Order Department (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.

## Series 107-Models 250 and 410 Powered Coupler

107006-001



107007-001



### TECHNICAL SPECIFICATIONS:

Weight for 250 ..... 1 lbs (0.45 kg)  
Weight for 410 ..... 1.55 lbs (0.7 kg)

Vacuum range ..... ATM - 10 microns  
Max. Fluid Pressure..... 300 PSIG max (21kg/cm<sup>2</sup>)  
Fluid/Vacuum port fitting for 250.....3/8" JIC Flare  
Fluid/Vacuum port fitting for 410..... 1/2" JIC Flare

Air pilot ..... Clamp Air  
Min. Air supply pressure ..... 70 PSIG (4.9 kg/cm<sup>2</sup>)  
Air port fitting..... 1/4" dia. one touch connectors

Process fitting compatibility .....  
..... Series 250 or 410 Nipple  
Flow Rate for 250 ..... 0.6 Cv  
Flow Rate for 410 ..... 1.08 Cv

Process fitting nose seal ..... O - R i n g  
Process fitting clamp system ..... PCU BalLoc

Standard Seal compound ..... Buna-N (Nitrile)

Oil compatibility.....Polyolester or PAG

\* Please contact PCU Engineering for custom power couplers to fit your application.



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03-11-10



## Series 107

### Model EPF Powered Coupler

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#### FEATURES

- Evacuation & Charging
- Automatic disconnect capability
- Automatic operation, upon connection to fitting
- High vacuum and fluid flow rates
- Air operated
- Light weight
- Diesel Prime System



**Model EPF**

The Production Control Units Series 107 Powered Coupler is the interface adapter for Evacuation and Fluid Charging Systems. The Pneumate Process Coupler is designed for easy installation on to Eaton Single Valved (High-Flow) Fitting.

Coupler operation is controlled automatically by the process equipment. The operator only has to locate the Coupler on the process fitting. The process equipment then causes the coupler to clamp, seal, and initiate the cycle including evacuation, vacuum check or refrigerant charging. After cycle completion the process fitting seal is reseated and the coupler disconnects.

The clamping mechanism used is the time proven ball lock method.

The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Pneumate Process Charging Coupler can be easily adapted to all PCU "PLC" or relay controlled charging equipment or application to other competitive evacuation systems. Electrical controlled pendant or mechanical air valve available to suit your application.

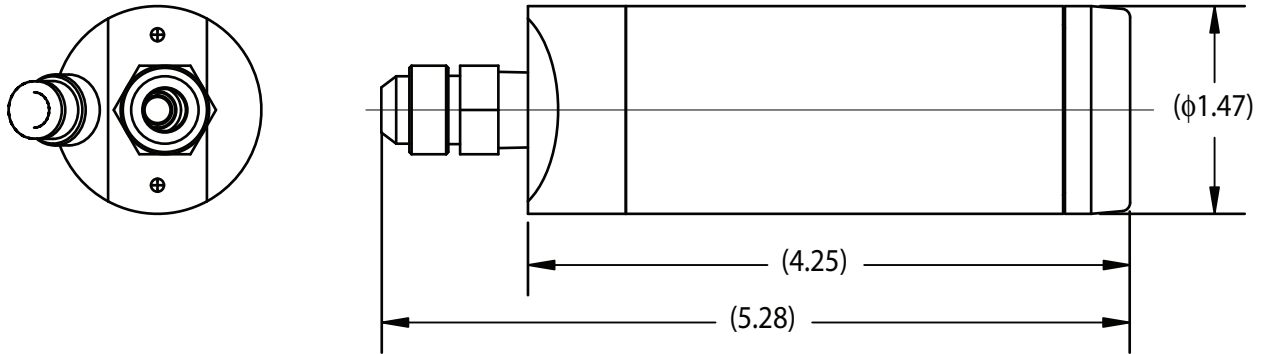
For manual coupler see product bulletin PB005.

Contact our Order Department (1-937-299-5594) to find out how our PCU Process Couplers can save you time and money.



## Series 107-Model EPF Powered Coupler

107012-001



### TECHNICAL SPECIFICATIONS:

Weight for EPF..... 1 lbs (0.45 kg)

Vacuum range ..... ATM - 10 microns

Max. Fluid Pressure..... 300 PSIG max (21kg/cm<sup>2</sup>)

Fluid/Vacuum port fitting for 250.....3/8" JIC Flare

Air pilot .....Clamp Air

Min. Air supply pressure .....70 PSIG (4.9 kg/cm<sup>2</sup>)

Air port fitting..... 1/4" dia. one touch connectors

Process fitting compatibility .....

.....Eaton 3036C or E03024A

Flow Rate for EPF..... 0.6 Cv

Process fitting nose seal ..... O - R i n g

Process fitting clamp system .....PCU BaLLoc

Standard Seal compound ..... Buna-N (Nitrile)

\* Please contact PCU Engineering for custom power couplers to fit your application.



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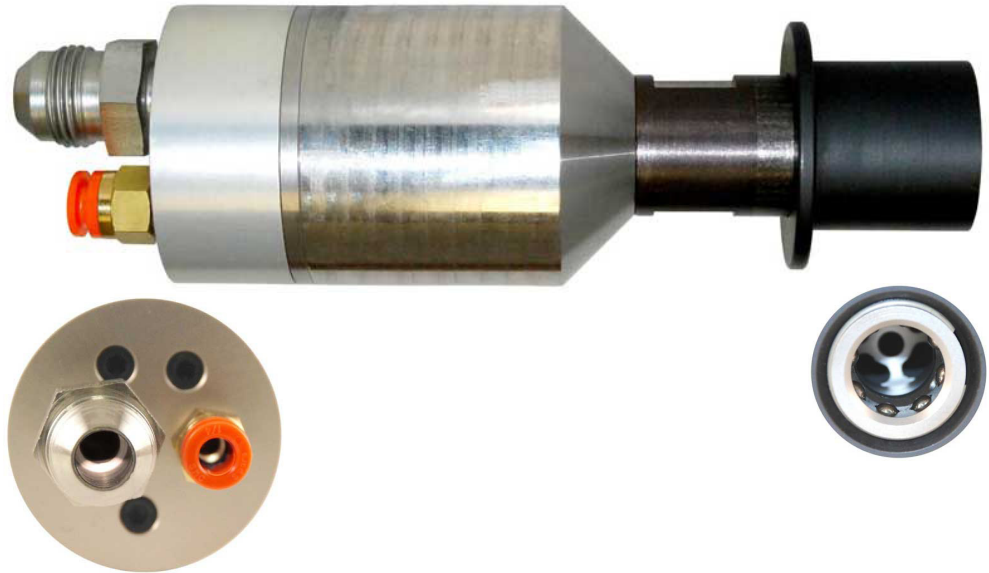


## Series 10 Pressure Bleed Coupler

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### FEATURES

- Minimal connection force
- Manual operation, upon connection to fitting
- Air operated poppet valve
- Lightweight



The series 10 coupler is the interface adapter for pressure bleed recovery. When a system is under pressure with helium or another gas, manually clamp the series 10 coupler onto the fitting, and start cycle. System controls will automatically apply air pressure to discharge system. When cycle is complete, the operator will remove BalLoc coupler by pulling on sleeve to release BalLoc Clamping.

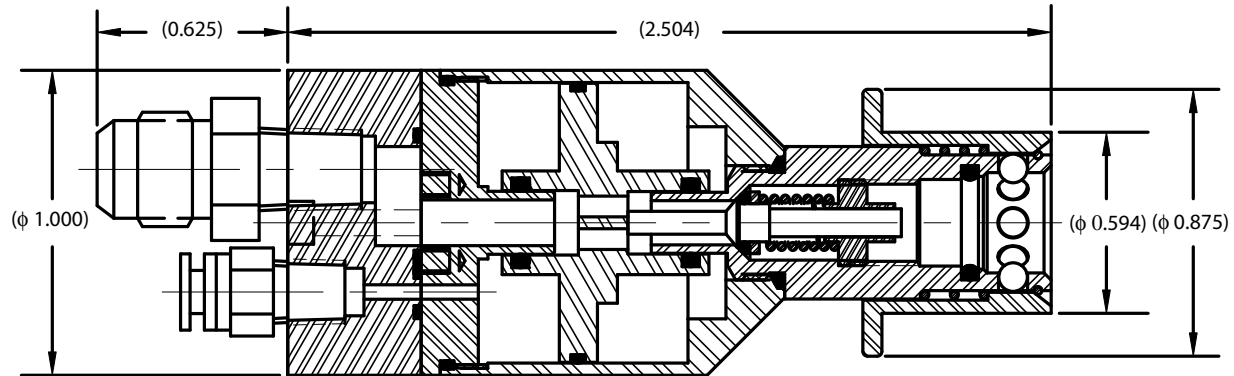
The manual clamping mechanism used is the time proven BalLoc method. The eight hardened steel balls which are constrained in the charge

gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Series 10 is designed to operate with helium tracer gas Systems. Tools with automatic clamping are available. Please contact PCU Engineering for further information.

Save money with the PCU Series 10 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

## Series 10 Pressure Bleed Coupler



\* For other configurations and multiple poppet valves, please contact PCU Engineering for dimensions and availability.

Series 10	Stem	PCU P/N	Coupler Kit
Model 250	Standard	102100	462-102100
Model 252	Standard	102358	462-102358
Model 253	Standard	102140	462-102140
Model 250	0.150" Extended	102362	462-102362

\* Contact PCU Engineering for custom series 10 to meet your application.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 1.9 lbs (0.86 kg)  
 Vacuum range . . . . . 0-760 TORR (0-760 mmHg)  
 Maximum Bleed Pressure . . . . . @ 70 PSI  
 Discharge port . . . . . 1/2" JIC flare  
 Manual BalLoc Coupler. See chart for coupler P/N  
 Air supply pressure . . . . . 70 PSIG (4.9 kg/cm<sup>2</sup>)

Air port fittings . . . 1/4" dia. one touch connectors  
 Coupler flow capacity . . . . . 0.94Cv (Series 250)  
 Process fitting nose seal . . . . . O-Ring  
 Process fitting clamp system . . . . . PCU BalLoc



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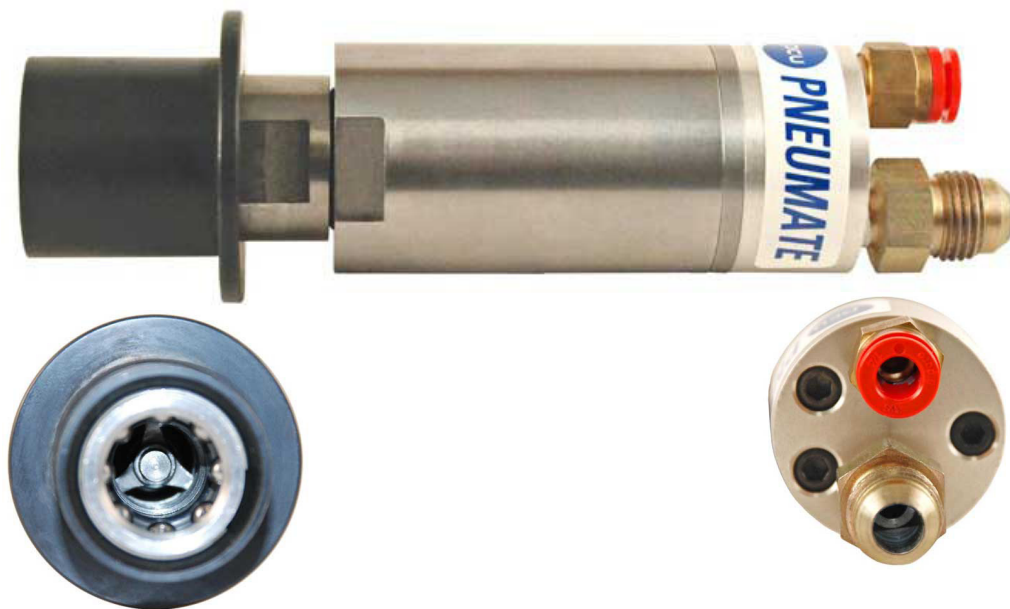
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## Series 11 Vacuum Coupler

### FEATURES

- Minimal connection force
- Manual operation, upon connection to fitting
- Air operated poppet valve
- Lightweight



The series 11 coupler is the interface adapter for vacuum applications that require independent stem operation. Manually clamp the series 11 coupler onto the fitting, and start cycle. System controls will automatically apply air pressure to evacuate system. When cycle is complete, the operator will remove BalLoc coupler by pulling on sleeve to release BalLoc Clamping.

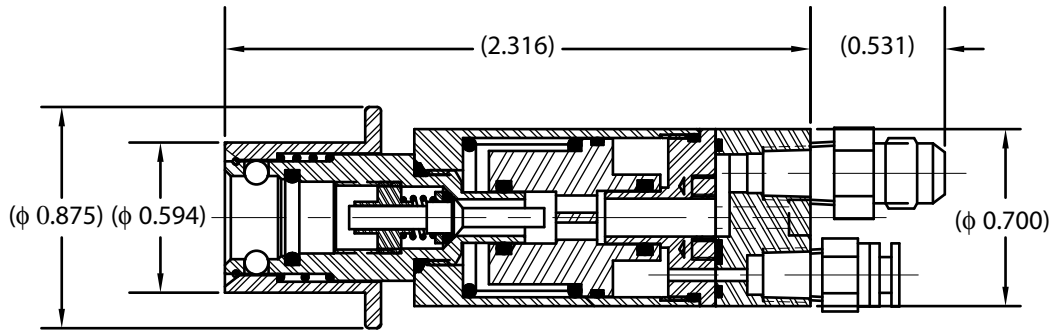
The manual clamping mechanism used is the time proven BalLoc method. The eight hardened steel balls which are constrained in the charge gate body are secured onto the ball

groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Series 11 is designed to operate with helium tracer gas Systems. Tools with automatic clamping are available. Please contact PCU Engineering for further information.

Save money with the PCU Series 11 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

## Series 11 Vacuum Coupler



\* Contact PCU Engineering for custom series 11 to meet your application.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 1.25 lbs (0.57 kg)  
Vacuum range . . . . . 0-760 TORR (0-760 mmHg)  
Discharge port . . . . . 3/8" SAE FL  
Manual BalLoc Coupler . . . . . 462-102131  
Air supply pressure . . . . . 70 PSIG (4.9 kg/cm<sup>2</sup>)  
Air port fittings . . . 1/4" dia. one touch connectors

Coupler flow capacity . . . . . 0.76Cv (coupler only)  
Process fitting nose seal . . . . . O-Ring  
Process fitting clamp system . . . . . PCU BalLoc



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## Series 250 Evacuate & Charge Coupler

### FEATURES

- No Vacuum or Charge Media Loss
- Quick Connect
- Safety Shutoff
- Adaptability
- Mates to Series 250 Nipple

### APPLICATIONS

- Vacuum/Air
- Helium
- Nitrogen

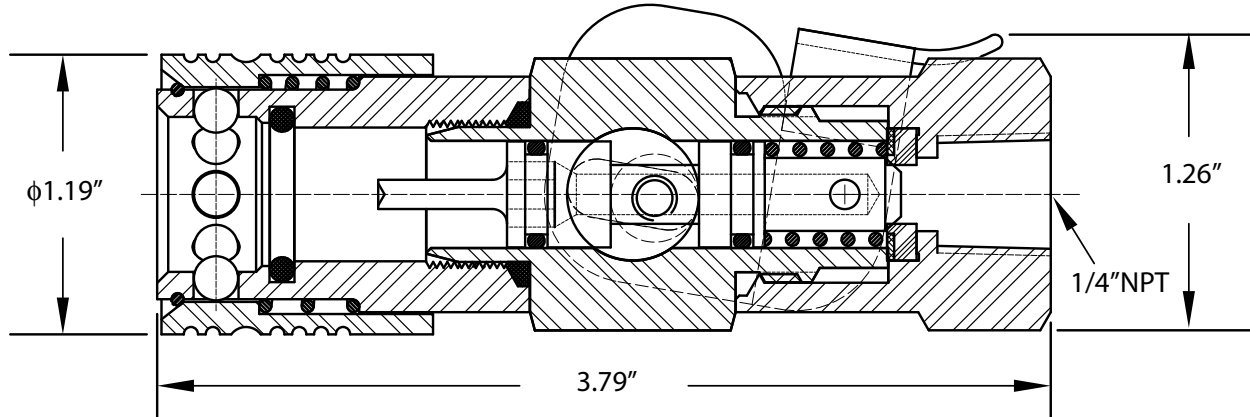


With the operating lever in the closed (down) position, the operator can connect the tool to the process nipple by pulling back on the tool sleeve and engaging the nipple.



After connecting to the nipple, the operator opens the flow passage and shutoff valve by opening the lever and rotating it in the "up" position. This action locks the tool onto the process nipple preventing release of the tool during processing. When processing is complete, the operator closes the flow passage and shutoff valve by rotating the lever into the "down" position. The tool may then be removed from the process nipple.

## Series 250 Evacuate & Charge Coupler



**STANDARD STOCK PART NUMBER: 46211**

### TECHNICAL SPECIFICATIONS:

Weight ..... 12.25 oz  
Pressure ..... 25 microns to 500 PSIG

Process fitting compatibility \* ..... 250 nipple  
Flow Rate ..... 0.43 Cv  
Stem extension ..... standard for series 250  
Process fitting nose seal ..... OR113  
Process fitting clamp system ..... PCU BalLoc

### ORDER PART NUMBER:

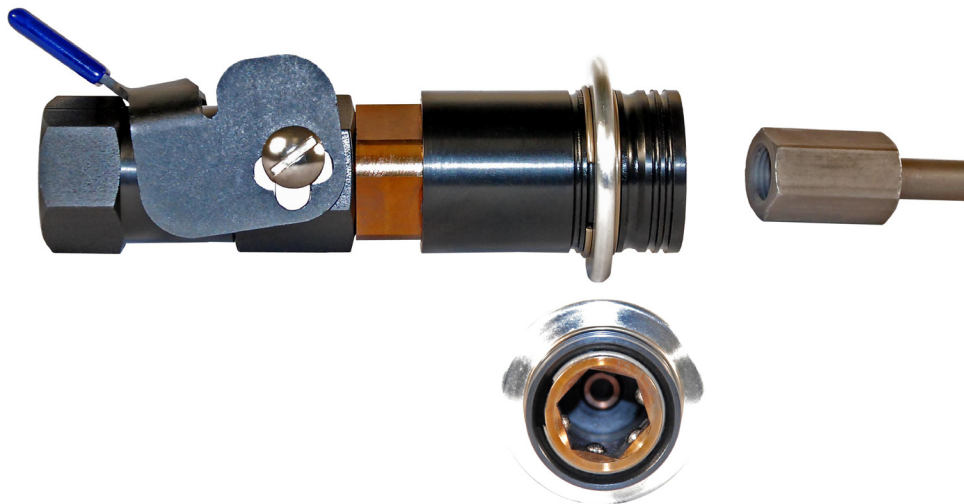
45635 ..... Buna N (Nitrile) Seals  
46211 ..... Neoprene Seals  
46680 ..... Fluorocarbon Seals

\* Compatibility with other fittings are available. Please contact PCU Engineering.

### PATENTS:

This coupler is manufactured under U.S. Patent No. 5,074,332

PCU can customize to meet your application.



## Production Control Units, Inc.

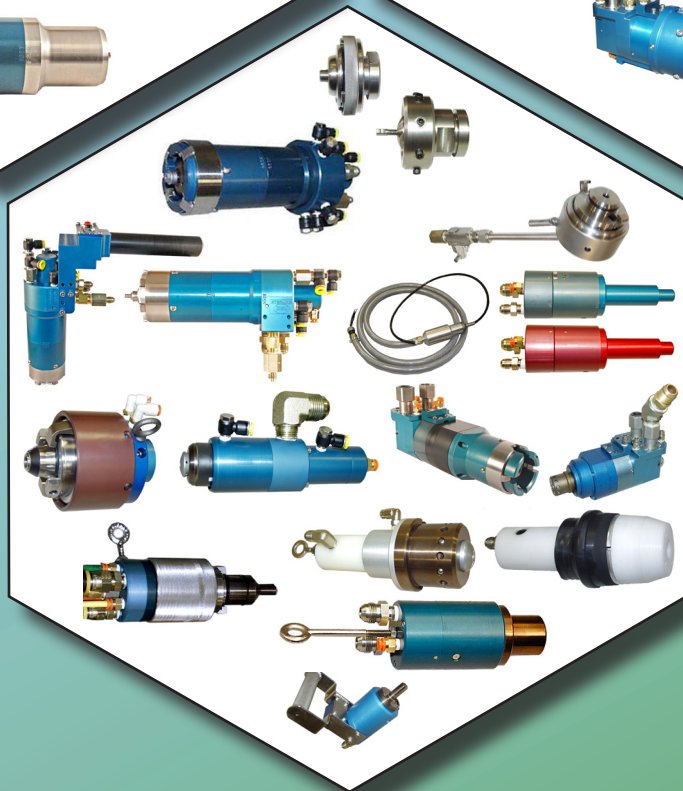
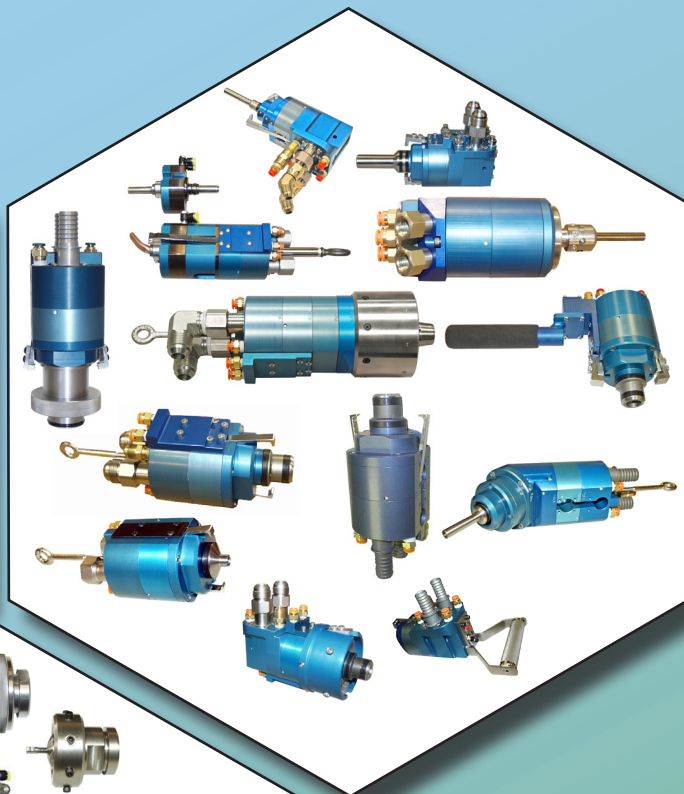
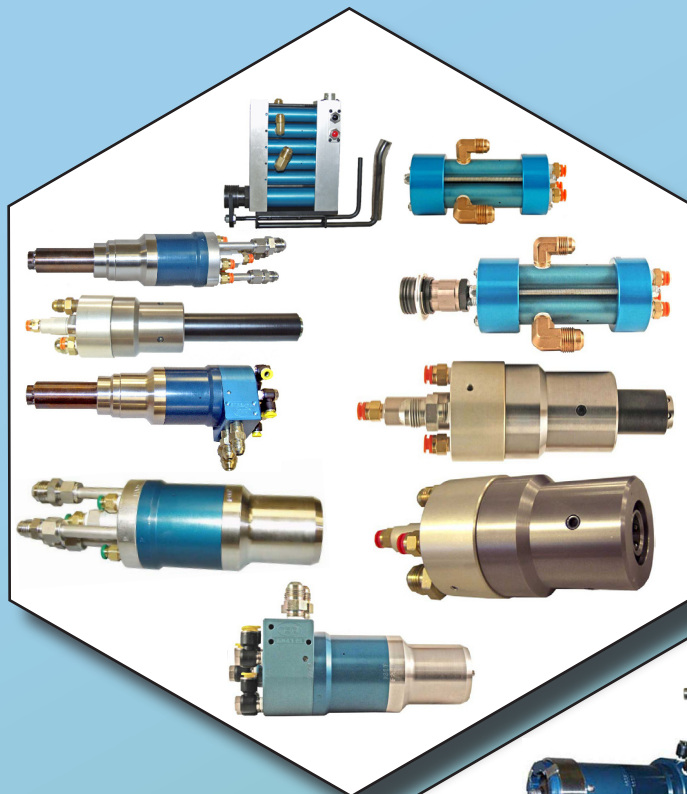
2280 West Dorothy Lane, Dayton, Ohio 45439-1892 Phone (937) 299-5594 FAX: (937) 299-4843  
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# TOOL ADAPTORS

## A/C TOOLS

## RADIATOR & POWER STEERING TOOLS



**BRAKE, WINDSHIELD WASHER, TRANSMISSION TOP-OFF,  
LEAK TEST, & MANUAL ADAPTORS**

**PCU Production Control Units, Inc.**

2280 West Dorothy Ln., Dayton Ohio 45439-1892, USA

Phone: 937-299-5594 • FAX: 937-299-3843 • [www.pcuinc.com](http://www.pcuinc.com)

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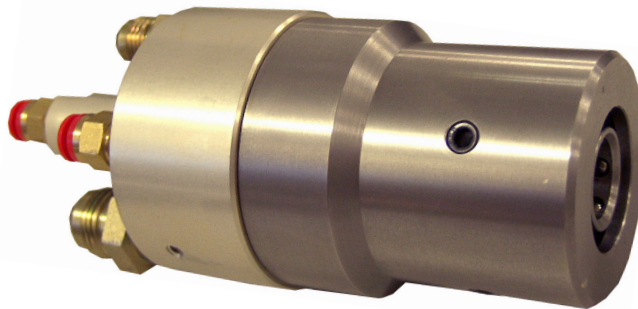




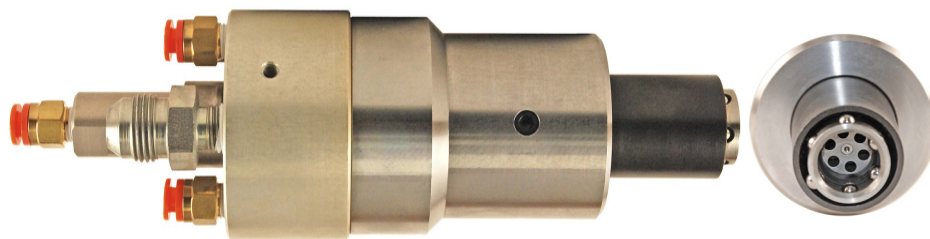
## FEATURES

- Minimum refrigerant loss
- Automatic disconnect capability
- Zero connection force with clamp tell-tale
- Automatic operation, upon connection to fitting
- High vacuum and refrigerant flow rates
- Air operated
- Lightweight
- Connection to J639 High-Side fitting

## Series 13000-003 Evacuation & Refrigerant Charging Tool



**Standard Series # 13000-003  
High-Side J639**



**Extended Nose Model**

Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Model 13000-003 Charging Tool is the interface adapter for a refrigerant charging system. It is designed for direct connection to quick-connect HFC-134a A/C process fittings for evacuation and refrigerant charging, with de minimis refrigerant loss to atmosphere from the tool, and the additional benefit of automatic disconnect at cycle completion.

Tool operation is controlled automatically in that the operator only has to locate the tool on the process fitting. The tool then clamps (indicated by the tell-tale), seals, and initiates the charging machine cycle including evacuation, vacuum check and refrigerant charging. After cycle

completion, the process fitting seal is reseated and the tool disconnects.

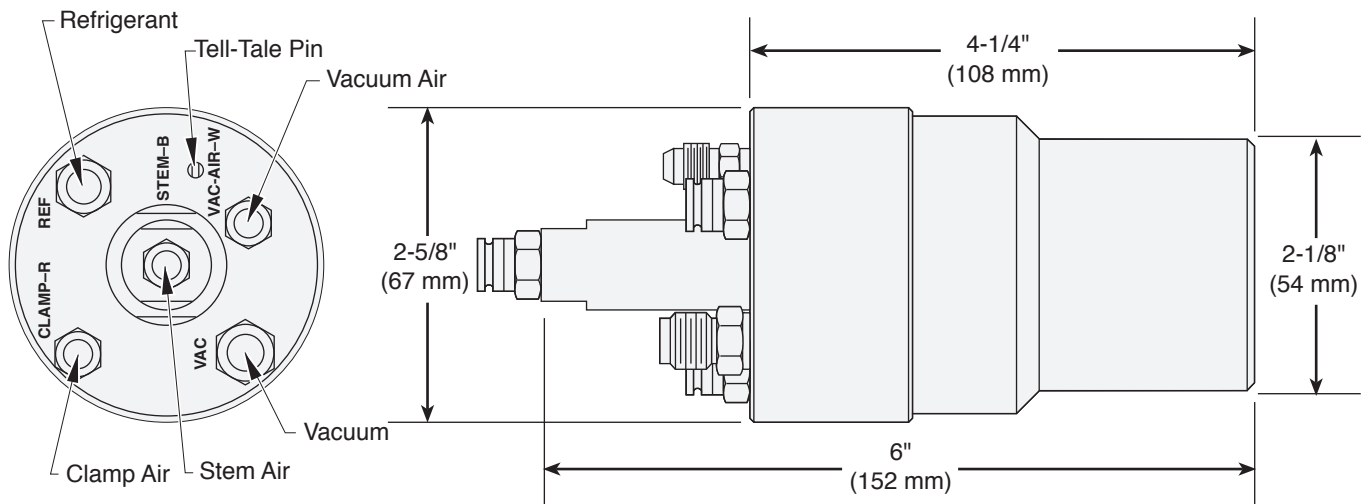
The clamping mechanism used is the time proven ball lock method. The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Model 13000-003 Charging Tool is used with hydraulic driven ram charging systems. Application to other equipment, including competitive charging systems, can also be accomplished.

Save money with the PCU Model 13000-003 Charging Tool. Contact us with your application and equipment specifications at (1-937-299-5594).



# Series 13000-003 Evacuation & Refrigerant Charging Tool



**STANDARD STOCK PART NUMBER: 48440**

## TECHNICAL SPECIFICATIONS:

Weight . . . . . 3.1 lbs (1.4 kg)

Vacuum range . . . . . 0-760 TORR (0-760 mmHg)

Vacuum flow . . . . . 2.5 SCFM

Vacuum port fitting . . . . . 1/2" JIC flare

Refrigerant. . . . . HFC-134a  
at 600 PSIG max. (42 kg/cm<sup>2</sup>)  
relieves at 350 PSIG (25 kg/cm<sup>2</sup>)

Refrigerant port fitting . . . . . 3/8" JIC flare  
Tool flow rate . . . . . 225g/sec  
(Typical value based on external drive force of 750 PSI)

Air pilots . . . . . (Vacuum, Clamp & Stem air)

Air supply pressure . . . . . 80 PSIG (5.6 kg/cm<sup>2</sup>)

Air port fittings. . . 1/4" dia. one touch connectors,  
color coded

Process fitting compatibility . . . . . SAE J639

Process fitting nose seal . . . . . Molded

Process fitting clamp system . . . . . PCU BalLoc

Oil compatibility. . . . . Polyolester or PAG

## PATENTS:

This tool is manufactured under U. S. Patent No.  
4,805,417

## STANDARD PART NUMBER 48440:

1.5" Nose Extension: Part No. .... 101576

1.75" Nose Extension: Part No. ...209920-001

3.0" Nose Extension: Part No. .... 100876

5.0" Nose Extension: Part No. ...209901-001

**\* Please refer to PB053 for series 15000 low-side tool.**



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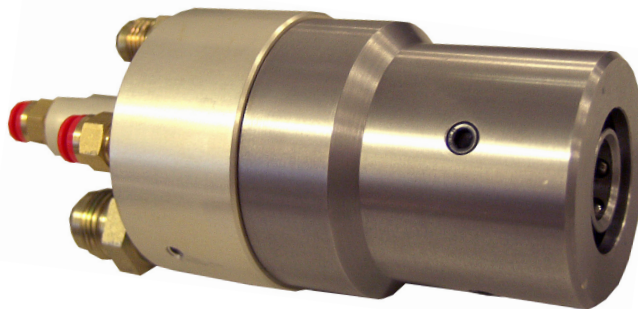
2280 West Dorothy Lane, Dayton, Ohio 45439-1892 Phone (937) 299-5594 FAX: (937) 299-4843  
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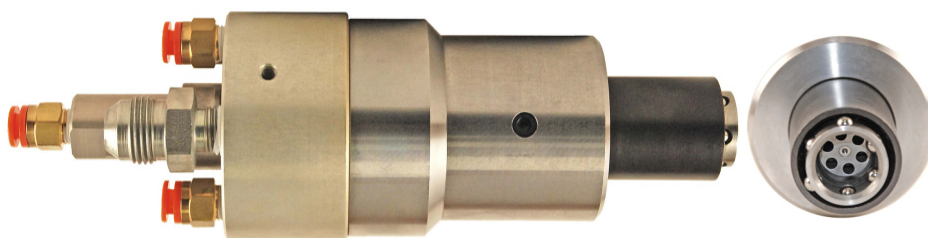
## Series 15000-003 Evacuation & Refrigerant Charging Tool

### FEATURES

- Minimum refrigerant loss
- Automatic disconnect capability
- Zero connection force with clamp tell-tale
- Automatic operation, upon connection to fitting
- High vacuum and refrigerant flow rates
- Air operated
- Lightweight
- Connection to J639 Low-Side fitting



**Standard Series # 15000-003  
Low-Side J639**



**Extended Nose Model**

Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Model 15000-003 Charging Tool is the interface adapter for a refrigerant charging system. It is designed for direct connection to quick-connect low-side HFC-134a/A/C process fittings for evacuation and refrigerant charging, with de minimis refrigerant loss to atmosphere from the tool, and the additional benefit of automatic disconnect at cycle completion.

Tool operation is controlled automatically in that the operator only has to locate the tool on the process fitting. The tool then clamps (indicated by the tell-tale), seals, and initiates the charging machine cycle including evacuation, vacuum check and refrigerant charging. After cycle

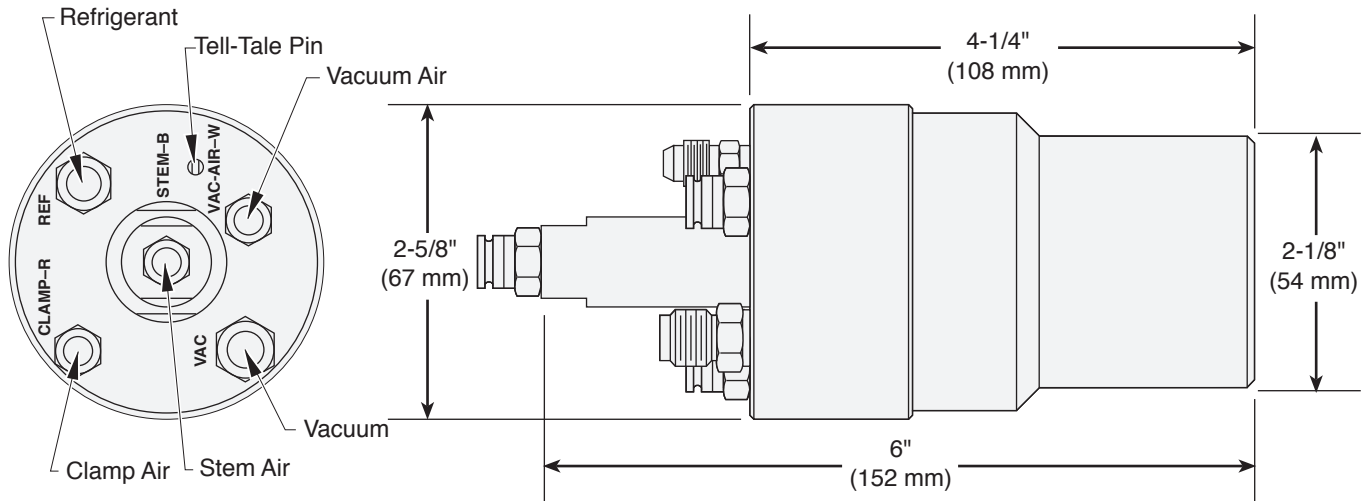
completion, the process fitting seal is reseated and the tool disconnects.

The clamping mechanism used is the time proven ball lock method. The six hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Model 15000-003 is used with hydraulic driven ram charging systems. Application to other equipment, including competitive charging systems, can also be accomplished.

Save money with the PCU Model 15000-003 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

# Series 15000-003 Evacuation & Refrigerant Charging Tool



## TECHNICAL SPECIFICATIONS:

Weight . . . . . 3.1 lbs (1.4 kg)

Vacuum range . . . . . 0–760 TORR (0–760 mmHg)  
 Vacuum flow . . . . . 2.5 SCFM  
 Vacuum port fitting . . . . . 1/2" JIC flare

Refrigerant. . . . . HFC-134a  
 at 600 PSIG max. (42 kg/cm<sup>2</sup>)  
 relieves at 350 PSIG (25 kg/cm<sup>2</sup>)  
 Refrigerant port fitting . . . . . 3/8" JIC flare  
 Tool flow rate . . . . . 255g/sec  
 (Typical value based on external drive force of 750 PSI)

Air pilots . . . . . (Vacuum, Clamp & Stem air)  
 Air supply pressure . . . . . 80 PSIG (5.6 kg/cm<sup>2</sup>)  
 Air port fittings. . . 1/4" dia. one touch connectors,  
 color coded

Process fitting compatibility . . . . . SAE J639  
 Process fitting nose seal . . . . . Molded  
 Process fitting clamp system . . . . . PCU BalLoc

Oil compatibility. . . . . Polyolester or PAG

## PATENTS:

This tool is manufactured under U. S. Patent No. 4,805,417

## STANDARD PART NUMBER 49946:

1.5" Nose Extension: Part No. ...102997-001  
 3.0" Nose Extension: Part No. ...102997-002

\* Please refer to PB023 for series 13000 high-side tool.



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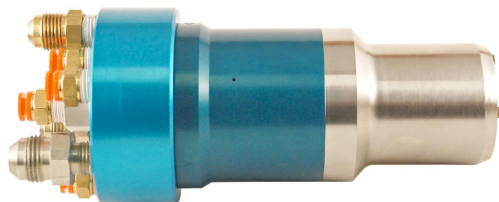
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## Series 104 Evacuation & Refrigerant Charging Tool

### FEATURES

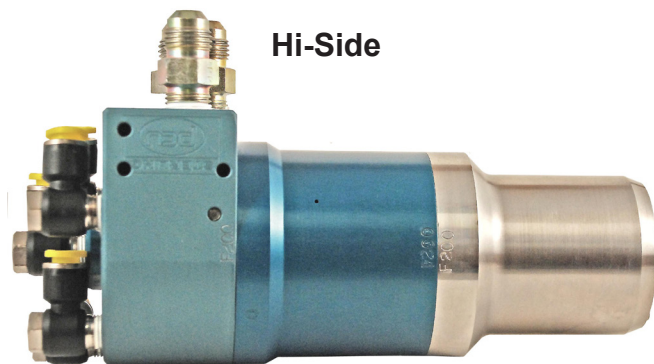
- Minimum refrigerant loss
- Automatic disconnect capability
- Zero connection force
- Automatic operation, upon connection to fitting
- High vacuum and refrigerant and oil flow rates
- Air operated
- Lightweight
- Separate Refrigerant and oil vacuum connections



**104001-700 Straight Manifold**



**104001-002 Straight Manifold**



**104001-004 90° Manifold**

Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Series 104 Charging Tool is the interface adapter for a refrigerant/oil charging system. It is designed for direct connection to quick-connect HFC-134a A/C hi-side process fittings for evacuation and refrigerant/oil charging, with de minimis refrigerant loss to atmosphere from the tool, and the additional benefit of automatic disconnect at cycle completion.

Tool operation is controlled automatically. The operator only has to locate the tool on the process fitting, it clamps, seals, and initiates the charging machine cycle including evacuation, vacuum check and refrigerant charging. After cycle completion, the process fitting seal is resealed and the tool disconnects.

The clamping mechanism used is the time proven ball lock method. The eight hardened steel balls are constrained in the charge gate body, and secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

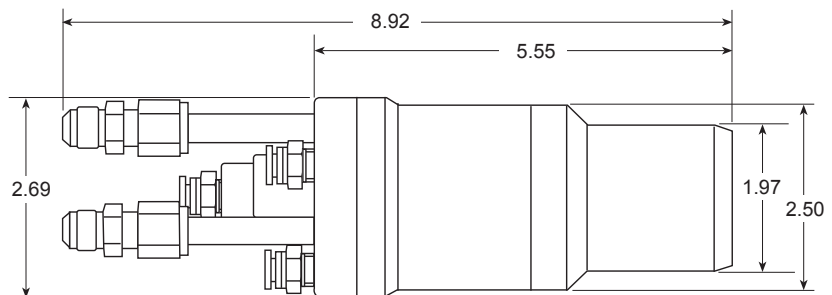
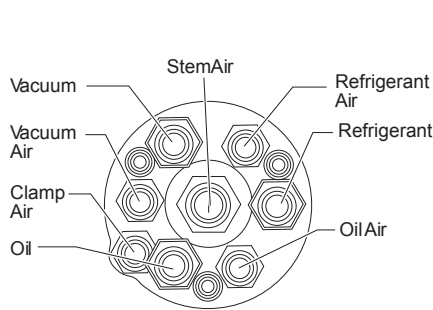
The Tool is designed to operate with the Mass Flowmeter Refrigerant Charging System. It is also adaptable to applications that require air-piloted valve operation with automatic clamping and fitting stem operation.

The tool contains three separate fluid circuits, controlled by air pilot pressure, which may be used for vacuum, refrigerant, salvage, oil, or any other fluid.

Standard series 104 is designed for high flow rate up to 300 g/sec at 200 PSI. Slower flow rates are available please contact PCU Engineering with your application and equipment specifications.

Save money with the PCU Series 104 Charging Tool. Contact our Order Department (1-937-299-5594) with your application and equipment specifications.

# Compucharge Series 104 Evacuation & Refrigerant Charging Tool



(104001-002 Shown)

**STANDARD STOCK PART NUMBERS:** 104001-002 (STRAIGHT MANIFOLD)  
104001-004 (90° MANIFOLD)

## TECHNICAL SPECIFICATIONS:

Weight . . . . .	.425 lbs (1.9 kg)	Air pilots . . . . .	(Vacuum, Refrigerant, Oil, Clamp & Stem air)
Vacuum range . . . . .	0–760 TORR (0–760 mmHg)	Air supply pressure . . . . .	70 PSIG (4.9 kg/cm <sup>2</sup> )
Refrigerant . . . . .	HFC-134a Opens with pressure air @ 60 psig	Air port fittings . . . . .	1/4" dia. one touch connectors
Oil . . . . .	Polyolester or PAG Opens with pressure air @ 60 psig	Flow Capacity (Refrig., Vacuum, Oil). . . . .	0.9Cv (typical)
Tool flow rate (typical) . . . . .	300 g/sec at 200 PSI (Contact PCU for Slower Flow Rates)	Process fitting compatibility . . . . .	SAE J639
		Process fitting nose seal . . . . .	Molded
		Process fitting clamp system . . . . .	PCU BalLoc
Max Refrigerant Pressure . . .	200 psig @ 70 psi air . . . . . 300 psig @ 80 psi air . . . . . 400 psig @ 90 psi air . . . . . 500 psig @ 100 psi air	Oil compatibility . . . . .	Polyolester or PAG
Vacuum port fitting . . . . .	1/2" JIC flare	<b>PATENTS:</b>	
Refrigerant & oil port fitting . . . . .	3/8" JIC flare	This tool is manufactured under U. S. Patent No. 6,298,886	

Contact PCU for extended nose Series 104.

Series 104 can easily be modified to mate with Series 250: Hansen 2HK, 3HK, and J639 Low-Side Fittings. Please contact PCU Engineering for Custom Series 104 to meet your application.



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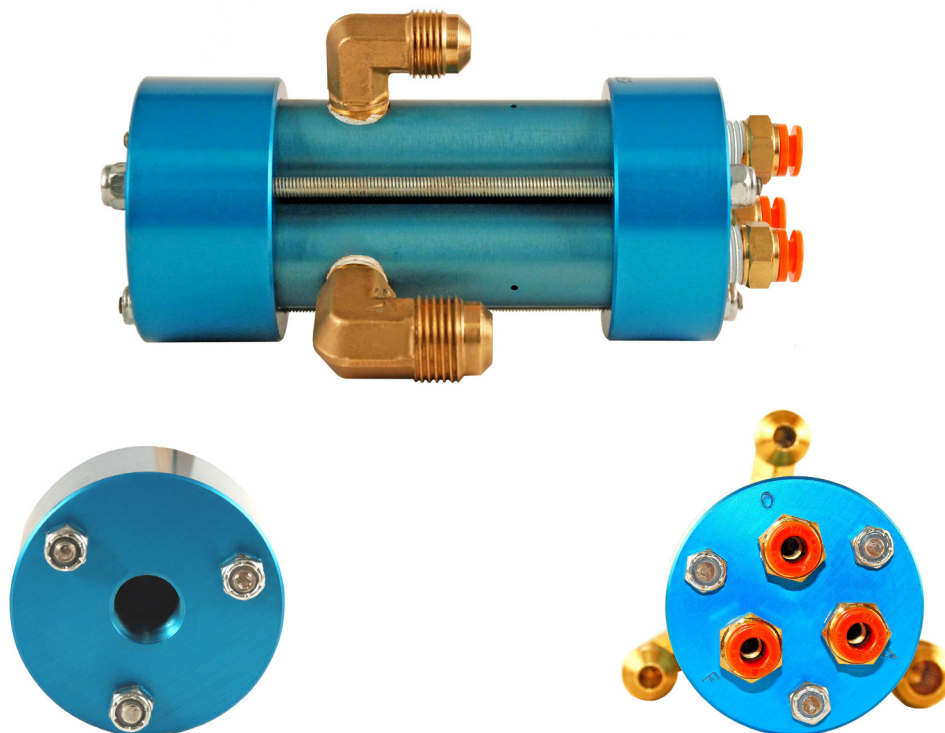


## Series 130 Valve Block

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### FEATURES

- Universal Valve Block for various applications.
- High vacuum and fluid and oil flow rates
- Air operated poppet valves
- Lightweight
- Separate fluid and oil vacuum connections
- Easy Valve Body Maintenance



The Series 130 Valve Block Tool is the interface between a manual or automatic clamping mechanism and the fill system. Standard design includes a 3/8" NPT female connection for any manual coupler, power coupler or an automatic clamping mechanism. Refer to product bulletins, PB47 for manual coupler; and PB 49 for power coupler series 130 designs.

The Series 130 Valve Block Tool is designed to operate with Mass Flowmeter Fill System. Tools with automatic clamping are available. Please contact PCU for further information.

The tool contains three separate fluid circuits, controlled by air pilot pressure, which may be used for vacuum, refrigerant, salvage, oil, or any other fluid.

Save money with the PCU Series 130 Valve Block Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

Technical drawing of the 1000 Series Vacuum Chamber, showing front, side, and top views with dimensions and port labels.

**Front View (Left):** Shows a circular flange with four mounting holes. A dimension of 3/8" NPT is indicated for the mounting holes.

**Side View (Middle):** Shows the chamber's profile with dimensions: (5.41) for the main body length, (6.21) for the total length, and (2.44) DIA for the main body diameter.

**Top View (Right):** Shows the chamber's top with various ports labeled: Fluid, Fluid Air, Oil Air, Oil, Vacuum Air, and Vacuum. The ports are arranged in a circular pattern around the center.

**Part Number** 1 3 0 0 7 7 -

**Series 130** (Digits 1, 3, 0)

**Valve Block** (Digit 0)

**No. of Valves** (Digits 7, 7)

**Stem** (Digit -)

**O-Ring Compounds**

- 0 = No Stem
- 1 = With Stem

**O-Ring Compounds Legend:**

- 1 = Neoprene
- 2 = Buna-n (Nitrile)
- 3 = Fluorocarbon
- 6 = EPDM

### TECHNICAL SPECIFICATIONS:

**PATENTS:**  
Patent Pending



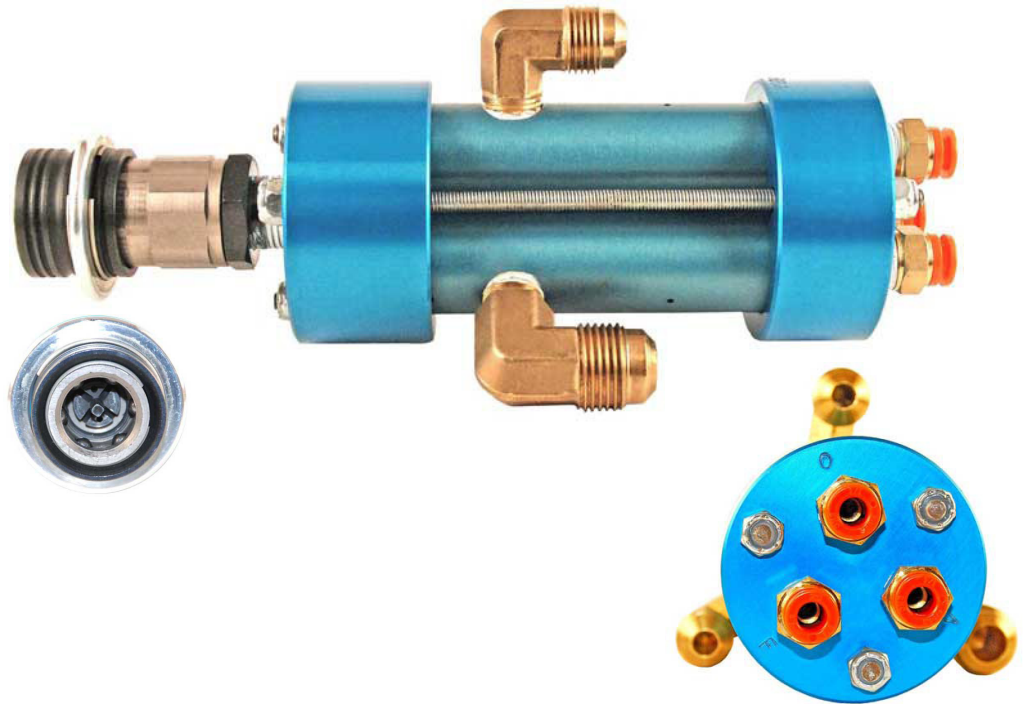
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# Series 130 Evacuation & Refrigerant Charging Tool With Manual Coupler

## FEATURES

- Minimum refrigerant loss
- Manual connection force
- Manual operation, upon connection to fitting
- High vacuum and refrigerant and oil flow rates
- Air operated poppet valves
- Lightweight
- Separate Refrigerant and oil vacuum connections



Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Series 130 Charging Tool is the interface adapter for a refrigerant/oil charging system. It is designed for direct connection to quick-connect HFC-134a A/C high-side process fittings for evacuation and refrigerant/oil charging, with de minimis refrigerant loss to atmosphere.

Tool valve operation is controlled automatically after the operator manually clamps BalLoc coupler on the process fitting and starts cycle. Charging machine cycle includes evaluation, vacuum check, and refrigerant charging. After cycle completion, the operator will remove BalLoc coupler by pulling on sleeve to release BalLoc clamping.

The manual clamping mechanism used is the time proven BalLoc method. The eight hardened steel balls

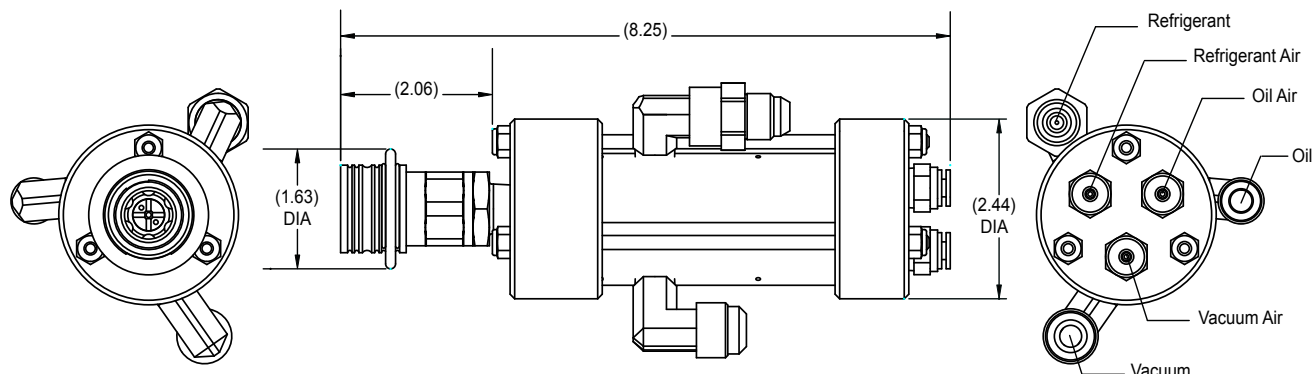
which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

The Series 130 Charging Tool is designed to operate with Mass Flowmeter Refrigerant Charging System. Tools with automatic clamping are available. Please contact PCU for further information.

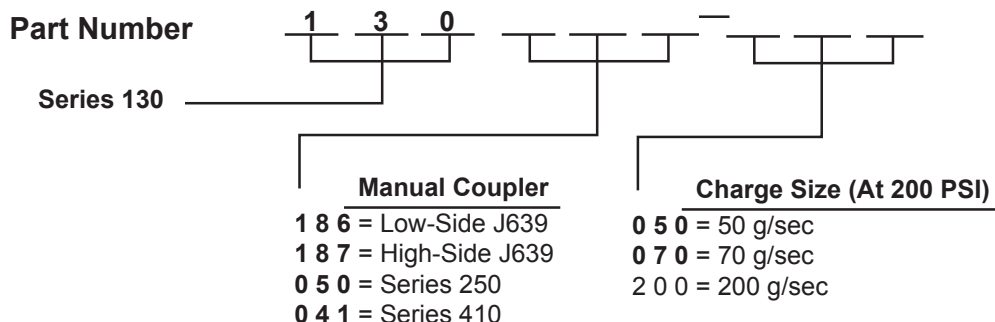
The tool contains three separate fluid circuits, controlled by air pilot pressure, which may be used for vacuum, refrigerant, salvage, oil, or any other fluid.

Save money with the PCU Series 130 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

# Series 130 Evacuation & Refrigerant Charging Tool with Manual Coupler



\* For other configurations and multiple poppet valves, please contact PCU Engineering for dimensions and availability.



**STANDARD STOCK PART NUMBER: 130187-050 (50 g/sec) (At 200 PSI)**

**Refer to PB049 for Series 130 Power Coupler.**

## TECHNICAL SPECIFICATIONS:

Weight . . . . . 2.4 lbs (1.09 kg)  
Vacuum range . . . . . 0–760 TORR (0–760 mmHg)  
Refrigerant . . . . . HFC-134a  
    Opens with pressure air @ 70 psig  
Oil . . . . . Polyolester or PAG  
    Opens with pressure air @ 70 psig  
Standard Charge Rate . . . . . 50 g/s  
Max Refrigerant Pressure . . . 200 psig @ 70 psi air  
    . . . . . 300 psig @ 80 psi air  
    . . . . . 400 psig @ 90 psi air  
    . . . . . 500 psig @ 100 psi air  
Vacuum port fitting . . . . . 1/2" JIC flare  
Refrigerant . . . . . 3/8" JIC flare  
Oil Port Fitting . . . . . 3/8" SAE flare  
Air pilots . . . . . (Vacuum, Refrigerant, Oil)

Air supply pressure . . . . . 70 PSIG (4.9 kg/cm<sup>2</sup>)  
Air port fittings . . . . . 1/4" dia. one touch connectors  
Tool Valve Block Flow Capacity (Refrig., Vacuum, Oil) . . . . .  
    . . . . . 0.9cv (Typical)  
Process fitting compatibility . . . . . SAE J639  
Process fitting nose seal . . . . . O-Ring  
Process fitting clamp system . . . . . PCU BalLoc  
Oil compatibility . . . . . Polyolester or PAG

## Manual Coupler P/N

186 = 86VT311  
187 = 87VT331FL  
050 = 62VT337FL  
041 = 67VT337



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## Series 130

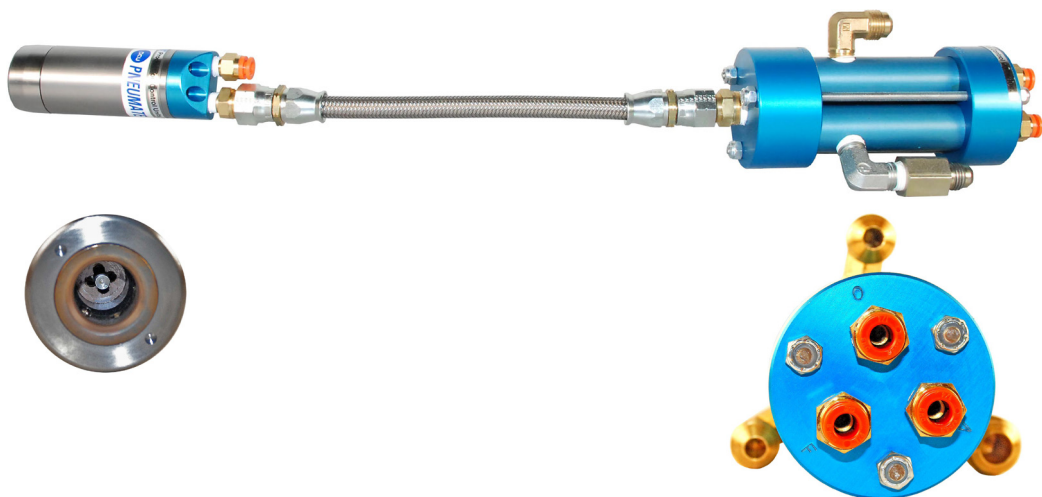
### Evacuation & Refrigerant Charging Tool

#### With Power Coupler

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#### FEATURES

- Minimum refrigerant loss
- Minimal connection force
- Semi-Automatic operation, upon connection to fitting
- High vacuum and refrigerant and oil flow rates
- Air operated poppet valves
- Lightweight
- Separate Refrigerant and oil vacuum connections



Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Series 130 Charging Tool is the interface adapter for a refrigerant/oil charging system. It is designed for direct connection to quick-connect HFC-134a A/C high-side process fittings for evacuation and refrigerant/oil charging, with de minimis refrigerant loss to atmosphere.

Tool valve operation is controlled automatically after the operator positions power coupler on the process fitting and starts cycle. Charging machine cycle includes evaluation, vacuum check, and refrigerant charging. After cycle completion, power coupler will automatically unclamp and operator will remove from high side fitting.

The Power Coupler clamping mechanism used is the time proven Ball Lock method. The eight hardened steel balls which are constrained in the charge gate body are secured onto the ball groove taper on the process fitting by the locking sleeve. Securing the balls on the taper assures positive force on the nose seal.

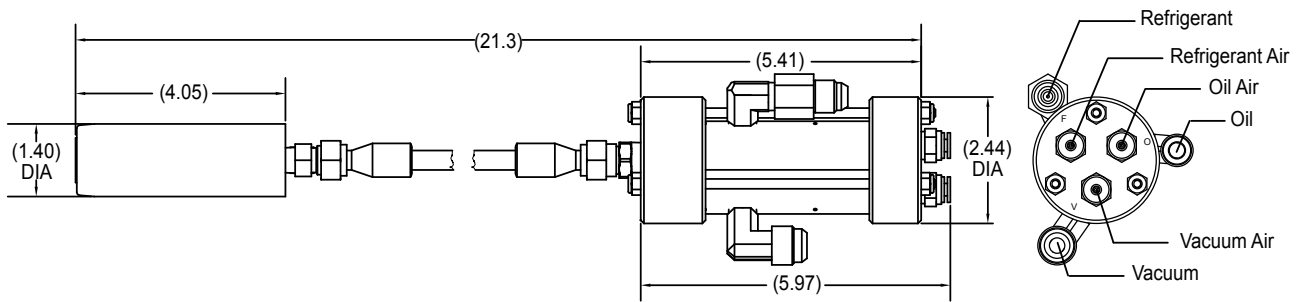
The Series 130 Charging Tool is designed to operate with Mass Flowmeter Refrigerant Charging System. Tools with automatic clamping are available. Please contact PCU Engineering for further information.

The tool contains three separate fluid circuits, controlled by air pilot pressure, which may be used for vacuum, refrigerant, salvage, oil, or any other fluid.

Save money with the PCU Series 130 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.



# Series 130 Evacuation & Refrigerant Charging Tool With Power Coupler



\* Power coupler 086 & 087 shown for other configurations and multiple poppet valves, please contact PCU Engineering for dimensions and availability.

Part Number	1	3	0	-	-	-
Series 130						
	Power Coupler			Charge Size (at 200 PSI)		
	0 8 6 = Low-Side J639			0 5 0 = 50 g/sec		
	0 8 7 = High-Side J639			0 7 0 = 70 g/sec		
	2 5 0 = Series 250					
	2 5 2 = Hansen 2HK					
	2 5 3 = Hansen 3HK					
	2 5 4 = Hansen 4HK					
	4 1 0 = Series 410					

**STANDARD STOCK PART NUMBER: 130087-050 (50 g/sec)**

**Refer to PB047 for Series 130 with Manual Coupler**

## TECHNICAL SPECIFICATIONS:

Weight . . . . . 3.6 lbs (1.6 kg)  
 Vacuum range . . . . . 0–760 TORR (0–760 mmHg)  
 Refrigerant . . . . . HFC-134a  
     Opens with pressure air @ 70 psig  
 Oil . . . . . Polyolester or PAG  
     Opens with pressure air @ 70 psig  
 Standard Charge Rate . . . . . 50 g/s  
 Max Refrigerant Pressure . . 200 psig @ 70 psi air  
     . . . . . 300 psig @ 80 psi air  
     . . . . . 400 psig @ 90 psi air  
     . . . . . 500 psig @ 100 psi air  
 Vacuum port fitting . . . . . 1/2" JIC flare  
 Refrigerant . . . . . 3/8" JIC flare  
 Oil Port Fitting . . . . . 3/8" SAE flare  
 Power Coupler . . . . . Low-Side 109006-001  
     . . . . . High-Side 102750-001

Air pilots . . . . . (Vacuum, Refrigerant, Oil)  
 Air supply pressure . . . . . 70 PSIG (4.9 kg/cm<sup>2</sup>)  
 Air port fittings . . . . . 1/4" dia. one touch connectors  
 Tool Valve Block Flow Capacity (Refrig., Vacuum, Oil)  
     . . . . . 0.36Cv (Typical) for low-side  
     . . . . . 0.41Cv (Typical) for hi-side  
 Process fitting compatibility . . . . . SAE J639  
 Process fitting nose seal . . . . . Molded Seal  
 Process fitting clamp system . . . . . PCU BalLoc  
 Oil compatibility . . . . . Polyolester or PAG

## PATENTS:

Patent Pending



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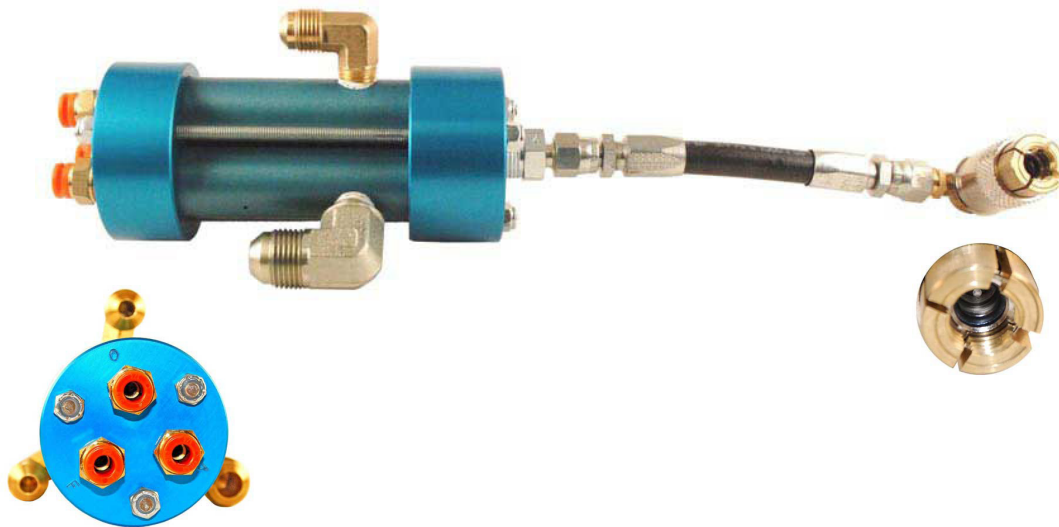




## Series 130 Evacuation & Refrigerant Charging Tool with Manual Coupler for 1/4" Schrader Fitting

### FEATURES

- Minimum refrigerant loss
- Manual connection force
- Manual operation, upon connection to fitting
- High vacuum and refrigerant and oil flow rates
- Air operated poppet valves
- Lightweight
- Separate Refrigerant and oil vacuum connections
- Connects to 1/4 flare fitting with Schrader core



Reduce labor content and minimize emission of refrigerant to the atmosphere!

The Series 130 Charging Tool is the interface adapter for a refrigerant/oil charging system. It is designed for direct connection to 1/4 flare thread with Schrader core process fittings for evacuation and refrigerant/oil charging, with de minimis refrigerant loss to atmosphere.

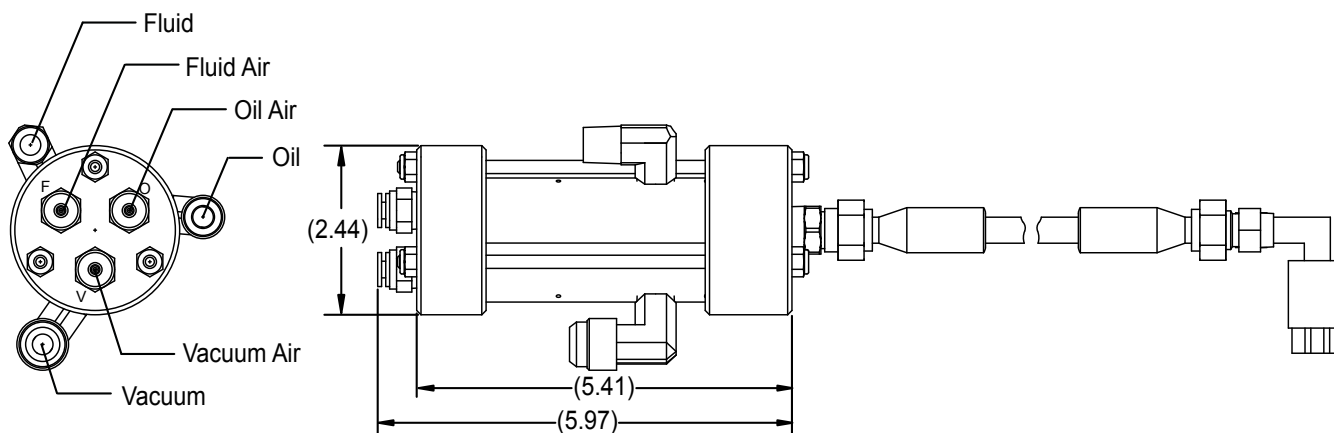
Tool valve operation is controlled automatically after the operator positions coupler on the process fitting and starts cycle. Charging machine cycle includes evaluation, vacuum check, and refrigerant charging. The operator will remove coupler by pulling on sleeve to release clamping.

The Series 130 Charging Tool is designed to operate with Mass Flowmeter Refrigerant Charging System. Tools with automatic clamping are available. Please contact PCU for further information.

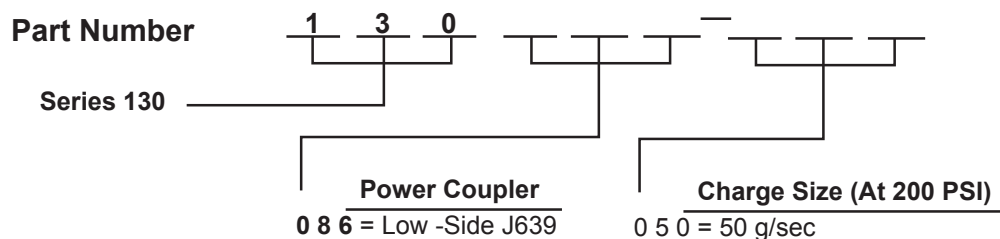
The tool contains three separate fluid circuits, controlled by air pilot pressure, which may be used for vacuum, refrigerant, salvage, oil, or any other fluid.

Save money with the PCU Series 130 Charging Tool. Contact our Order Department at (1-937-299-5594) with your application and equipment specifications.

## Series 130 Evacuation & Refrigerant Charging Tool with Manual Coupler for 1/4" Schrader Fitting



\* For other configurations and multiple poppet valves, please contact PCU Engineering for dimensions and availability.



**Refer to PB047 for Series 130 with Manual Coupler and PB049 for Series 130 with Power Coupler.**

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 2.6 lbs (1.18 kg)  
 Vacuum range . . . . . 0–760 TORR (0–760 mmHg)  
 Refrigerant . . . . . HFC-134a  
     Opens with pressure air @ 70 psig  
 Oil . . . . . Polyolester or PAG  
     Opens with pressure air @ 70 psig  
 Standard Charge Rate . . . . . .50 g/s  
 Max Refrigerant Pressure . . .200 psig @ 70 psi air  
     . . . . .300 psig @ 80 psi air  
     . . . . .400 psig @ 90 psi air  
     . . . . .500 psig @ 100 psi air  
 Vacuum port fitting . . . . . 1/2" JIC flare

Refrigerant . . . . . 3/8" JIC flare  
 Oil Port Fitting . . . . . 3/8" SAE flare  
 Air pilots . . . . . (Vacuum, Refrigerant, Oil)  
 Air supply pressure . . . . . 70 PSIG (4.9 kg/cm<sup>2</sup>)  
 Air port fittings . . . . . 1/4" dia. one touch connectors  
 Tool Valve Block Flow Capacity (Refrig., Vacuum, Oil) . . . . .  
     . . . . . .0.9Cv (Typical)  
 Process fitting compatibility 1/4 Flare Schrader Valve  
 Process fitting nose seal . . . . . O-Ring  
 Oil compatibility . . . . . Polyolester or PAG



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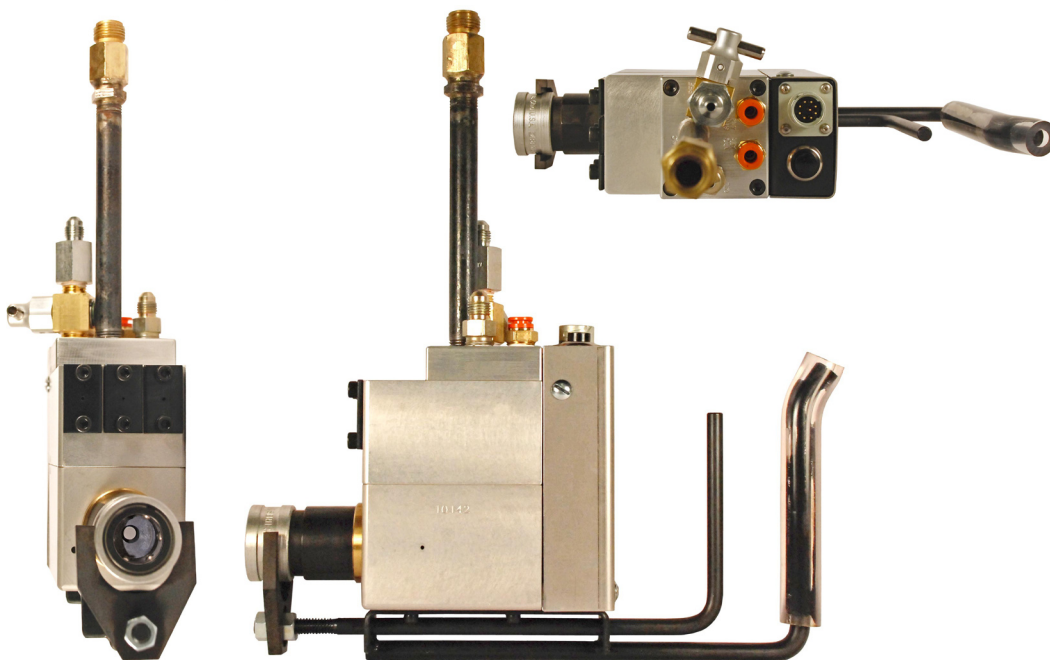
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## Series 300 Evacuation & Refrigerant Charging Tool

### FEATURES

- Minimum refrigerant loss
- Manual disconnect
- High vacuum & refrigerant flow rates
- Lightweight
- Connection to J639 High-Side fitting
- Relief style refrigerant & oil valve
- Air operated vacuum valve
- Easily adapted to different style process fittings
- Easily modified for multiple refrigerants
- Optional selector switch for multiple charge size
- Independent stem operation
- Scavenge optional



The PCU Series 300 A/C Charging Tool is part of an automated charging system designed to process the A/C system on appliances and vehicles. The system normally consists of a charger which provides a fast precise method of dispensing refrigerant, along with product vacuum checking prior to charging. A line accumulator and/or booster pump which maintain a consistent refrigerant supply.

The automatic 3 valve charging tool, hose, and control cable assembly permits tool connection evacuation, automatic process coupler valve actuation, unit vacuum checking as well as refrigerant and oil charging through a single connection to the product.

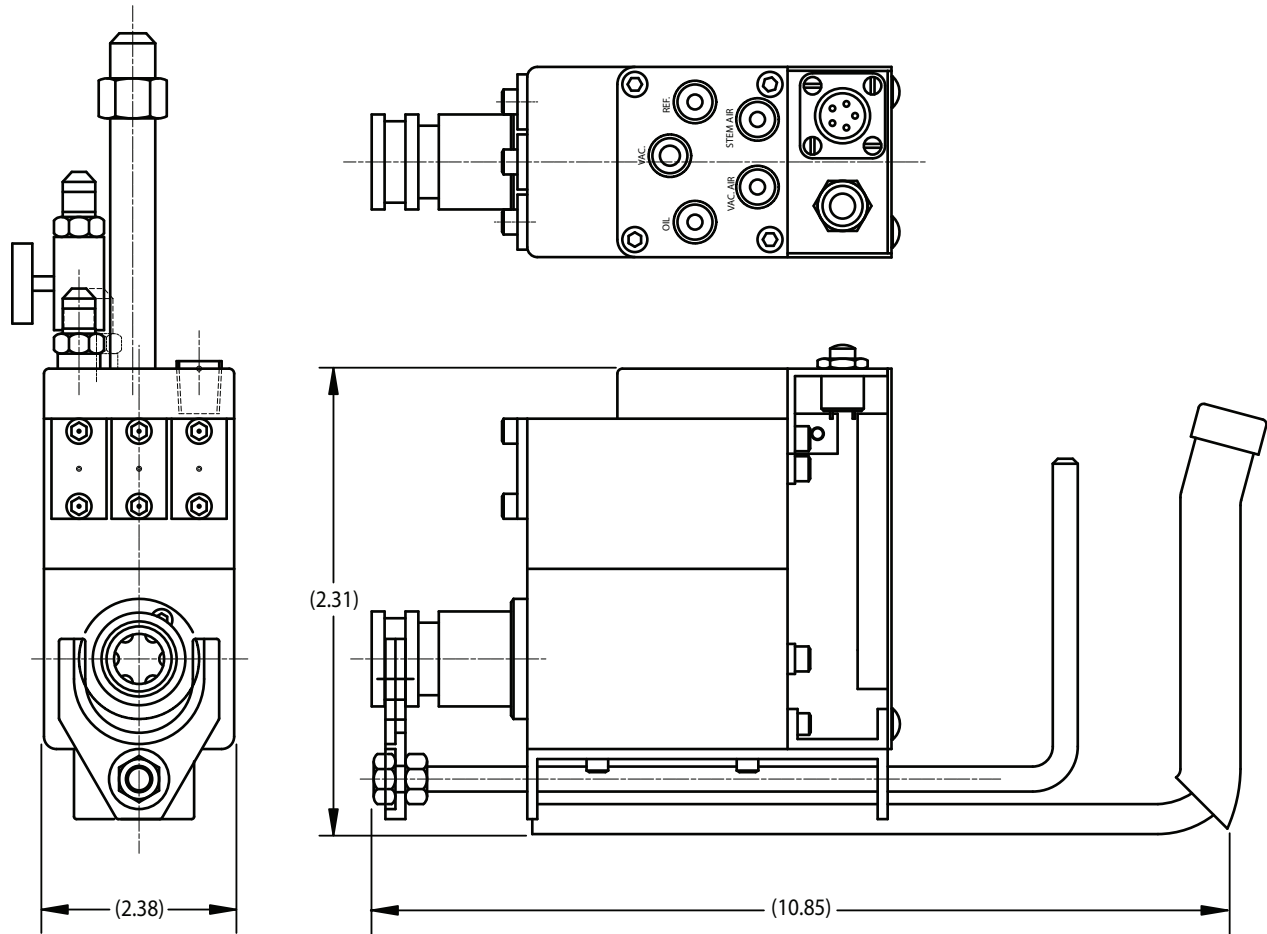
The tool oil and refrigerant valves are of the relief type they open and close in accordance with fluid pressure as provided by the charger. The vacuum valve and process coupler valve actuator are operated by spring backed air pistons. The tool is normally adapted for use with the

PCU series 250 process coupler. However other process couplers are available. This tool is electrically heated and thermostatically controlled at a temperature of 112°F (33°C) to prevent condensation of moisture on the coupler and to force refrigerant liquid from the connector into the unit at the end of the cycle. The charging machine cycle "Start" switch is usually mounted on the tool assembly and tool is normally supported by a tool balancer.

To operate the tool, the operator squeezes the handles, positions the tool on the process fitting and releases the handles, and then depresses the cycle "Start" pushbutton on the tool. Afterwards the evacuation cycle, vacuum check and refrigerant charging takes place automatically.

Contact our Order Department (1-937-299-5594) with your application and equipment specifications.

## Series 300 Evacuation & Refrigerant Charging Tool



### TECHNICAL SPECIFICATIONS:

Weight . . . . . 7.2 lbs (3.27 kg)

Vacuum range . . . . . 0-760 TORR (0-760 mmHg)  
Vacuum port fitting . . . . . 1/2" SAE

Refrigerant port fitting . . . . . 1/4" SAE

Min. Oil Charge Pressure. . . . . 480 PSIG  
Min. Refrigerant Charge Pressure . . . . . 480 PSIG

Air pilots . . . . . (Vacuum & Stem air)  
Air supply pressure . . . . . 60 PSIG (4.2 kg/cm<sup>2</sup>)  
Stem Air port fittings . . . . . 1/4" SAE FL  
(Optional 1/4" Dia one touch fittings)

Process fitting compatibility . . . . . Series 250  
(Optional Series 410 Hansen 2HK, 3HK, 4HK)  
Process fitting nose seal . . . . . O-Ring  
Process fitting clamp system . . . . . PCU BalLoc

Oil compatibility. . . . . Polyolester or PAG

Electrical Connection . . . . . 9 or 12 Pin Receptacle



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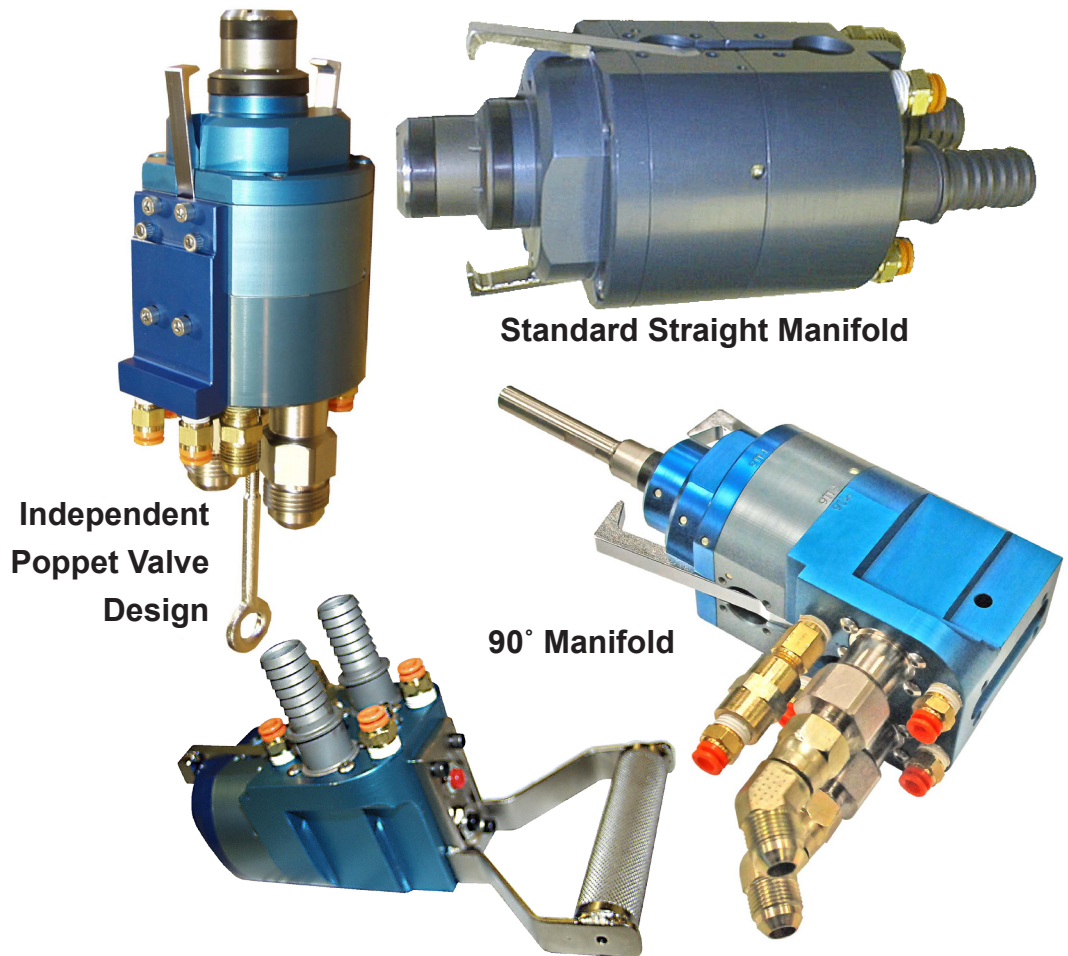
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## Series 106 Radiator Fill Tool

### FEATURES

- Simple attachment
- Air operated valve
- Dry evacuation circuit
- Drip free operation
- High vacuum flow rate
- High coolant flow rate
- Automated disconnect
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



The PCU Compufill Series 106 Radiator Fill Tool connects to engine cooling systems for evacuation and filling. This tool adapts the filling equipment to the cooling system.

The PCU Compufill Series 106 tool can be operated in conjunction with all PCU and other compatible radiator fill machines. This series of tools includes models which can be attached to most common radiator fill necks and surge tank inlets.

Typical tool operation is semi-automatic in that the operator has only to locate the tool onto the fill neck. Upon initiation of the fill cycle, the tool, under control of the fill machine will automatically seat and seal in order that the evacuation, leak

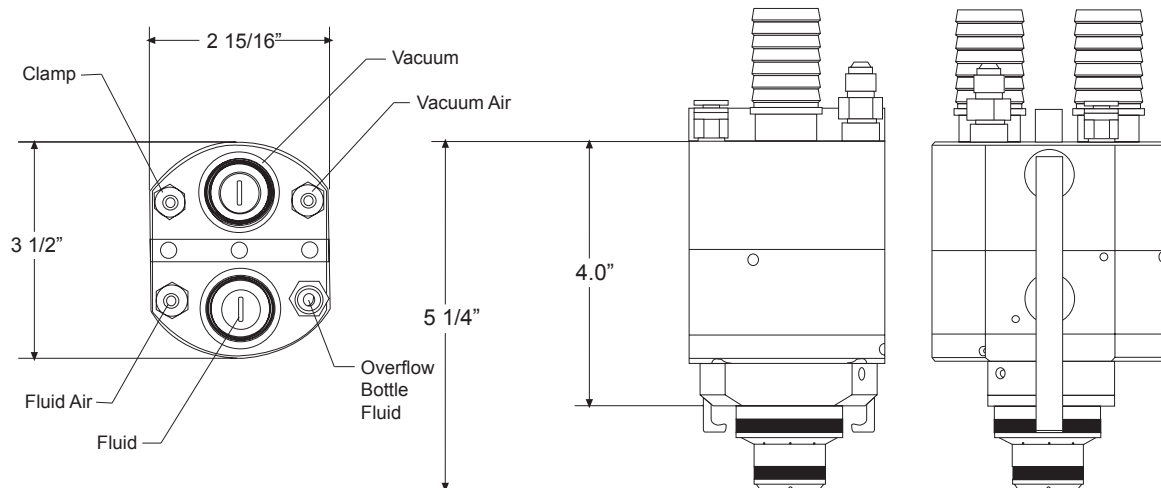
check, filling, and fill quality operation can proceed. Upon completion of these operations, the tool unseats and can then be retracted. All models are designed to provide minimum drip operation.

The PCU Compufill Series 106 tool provides flexibility from manual operations to those which are fully automated when attached to an tool presentation arm.

Series 106 tools can be easily modified for power steering, fuel, and transmission applications. Contact our Order Department at (1-937-299-5594) for your application requirements.



## Series 106 Radiator Fill Tool



- Tools can be used with PCU tool presentation arms for manual connect - pick and place - semi-auto attachment to vehicle reservoirs.
- Fits large and small radiator necks and all size surge tanks.
- Large internal porting for high flow rate.
- Tool designs for volume or pressure fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- Tool design includes the ability to fill the overflow bottle during the normal cycle.
- All phases of evacuation and fill cycle internal to tool are automatically controlled by the evacuate and fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- Interfaces to the Compufill Series 106 tool include clamp, seal and valve control air, coolant mixture and vacuum.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 3.25 lbs (1.5 kg)

Fluid. . . . . Engine Coolant

Fluid/Vacuum Port Fitting . . . . . 1/2", 3/4", or 1" Barbed Hose

Air Supply Pressure. . . . . 60 psig (4.2 kg/cm<sup>2</sup>) Min.

Air Port Fitting . . . 1/4" Dia. one Touch Connectors

Flow Capacity  
Fluid or Vacuum. . . . . 9.3 Cv Typical  
Overflow . . . . . 0.7 Cv Typical

Maximum Fluid Pressure. . . . . 50 psi

Radiator/Surge Tank . . . . . Common sizes for Rad & Surge Tanks

Tool Flow Rates:  
(Based on Standard Design)

25 PSI (1.75kg/cm )		
Hose	L/ sec	GPM
3/4"	1.58	25.1
1"	1.74	27.6

### PATENTS:

This tool is manufactured under U.S Patent No. 6,257,285.



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## Series 114 Brake Fill Tool

### FEATURES

- Simple attachment
- Air operated valves
- Dry evacuation circuit
- Drip free operation
- High vacuum flow rate
- High fluid flow rate
- Automated disconnect
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight
- Optional handle for 2 hand operation



**Standard 90° Manifold**



**Optional Handle  
With Pushbuttons**



**Optional Straight Manifold**

The PCU Compufill Series 114 Brake Fill Tool connects to brake master cylinder reservoirs for evacuation and filling. This tool adapts the filling equipment to the brake system.

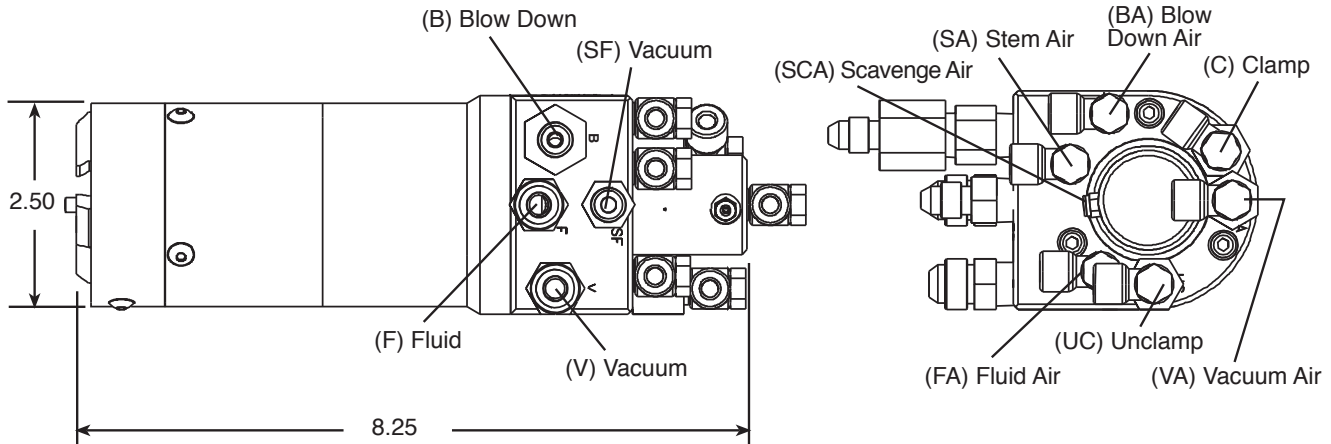
This series of tools includes models which can be attached to most common brake fill necks and can be customized for other applications.

Typical tool operation is semi-automatic in that the operator has only to locate the tool onto the fill neck. Upon initiation of the fill cycle, the tool, under control of the fill machine

will automatically clamp and seal in order that the evacuation, leak check, filling, and scavenges cycle can proceed. Upon completion of these operations, the tool unclamps and can then be removed. All models are designed to provide minimum drip operation.

The PCU Compufill Series 114 tool provides flexibility from manual operations to those which are fully automated when attached to a tool presentation arm.

## Series 114 Brake Fill Tool



- Designed for two different scavenge levels.
- Scavenge flow path is independent of fluid or vacuum circuit.
- Tool designed with secondary shutoff valve for drip-less operation.
- Tools can be used with PCU tool presentation arms for manual connect - pick and place - semi-auto attachment to vehicle reservoirs.
- Fits large and small brake necks.
- Internal porting for higher flow rate
- Tool designs for volume or pressure fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- All phases of evacuation and fill cycle internal to tool are automatically controlled by the evacuate and fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.
- Tool designed with independent blowdown circuit for fluid circuit clean out.
- Optional straight or 90° manifolds.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 4.25 lbs (2 kg)	Flow Capacity Fluid or Vacuum or Air Blowdown. 0.82 Cv Typical												
Fluid. . . . . Brake Fluid Fluid & Vacuum Port Fitting. . . . . 3/8" JIC	Maximum Fluid Pressure. . . . . 150 psi												
Scavenge & Blowdown Port Fitting. . . . . 1/4" JIC	<div>Flow Rates: DOT 3 Brake Fluid</div> <table><tr><th colspan="3">3/8" Hose</th></tr><tr><th>Fill Pressure</th><th>L/sec</th><th>GPM</th></tr><tr><td>70 PSI (4.8 BAR)</td><td>0.2</td><td>3</td></tr><tr><td>90 PSI (6.2 BAR)</td><td>0.24</td><td>3.8</td></tr></table>	3/8" Hose			Fill Pressure	L/sec	GPM	70 PSI (4.8 BAR)	0.2	3	90 PSI (6.2 BAR)	0.24	3.8
3/8" Hose													
Fill Pressure		L/sec	GPM										
70 PSI (4.8 BAR)		0.2	3										
90 PSI (6.2 BAR)	0.24	3.8											
Air Supply Pressure. . . . 70 psig (4.9 kg/cm²) Min.													
Air Port Fitting . . . 1/4" Dia. one Touch Connectors													



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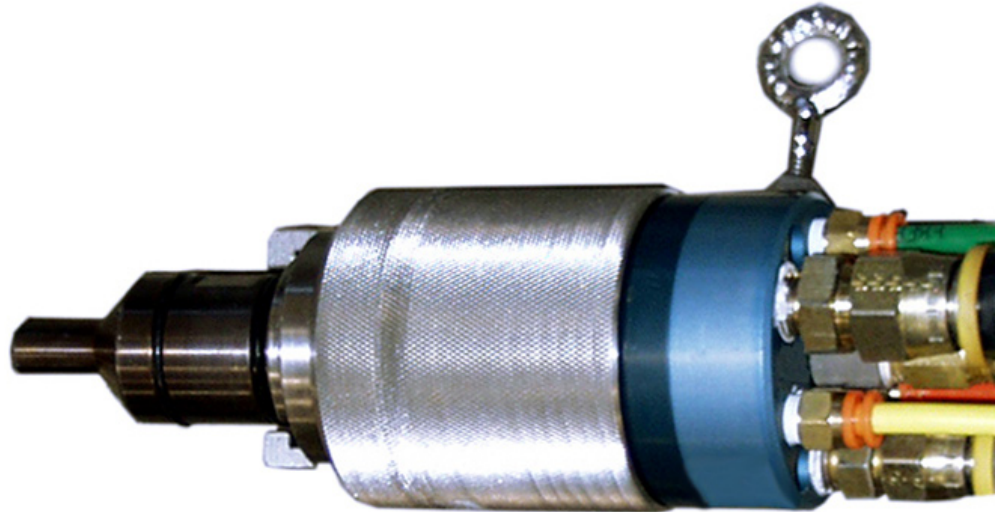


## Series 125 Manual Brake Fill Tool

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### FEATURES

- Simple manual attachment
- Air operated valves
- Dry evacuation circuit
- Drip free operation
- High vacuum flow rate
- High fluid flow rate
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight

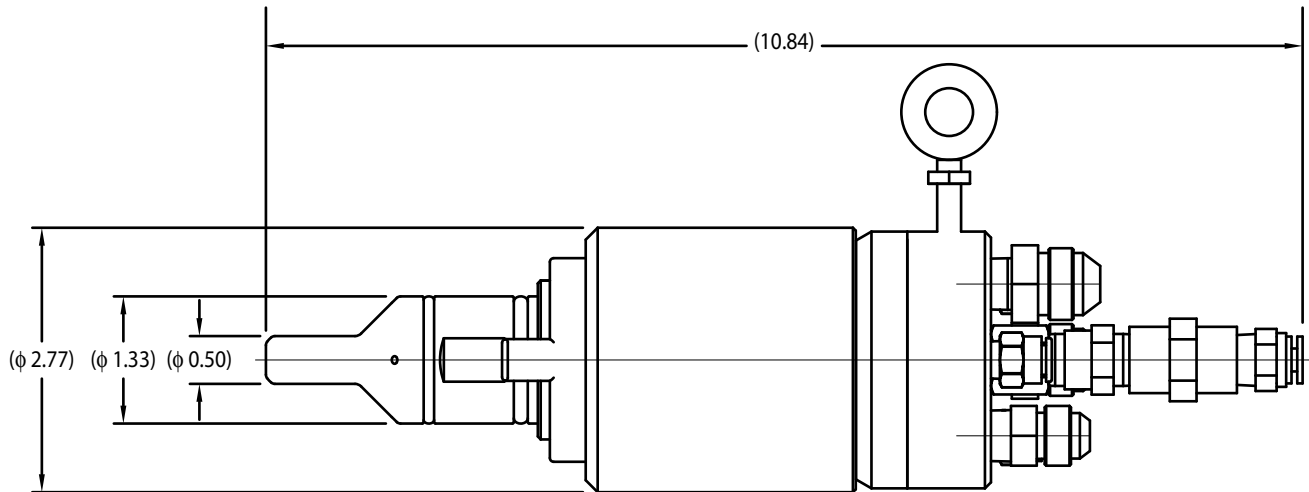


The PCU Compufill Series 125 Brake Fill Tool connects to brake master cylinder reservoirs for evacuation and filling. This tool adapts the filling equipment to the brake system.

This series of tools includes models which can be attached to most common brake fill necks and can be customized for other applications.

Typical tool operation is semi-automatic in that the operator inserts tool into reservoir and manually rotates sleeve to clamp and seal. Once the cycle start button is pressed, the system will control the air piloted valves for evacuation, leak check, filling and scavenge cycle. Upon completion of these operations, the operator will manually rotate sleeve to unclamp. Tool is designed for minimum drip operation.

## Series 125 Manual Brake Fill Tool



- Scavenge flow path is independent of fluid or vacuum circuit.
- Tool designed with secondary shutoff valve for dripless operation.
- Refer to series 114 for auto clamp brake tool PB038.
- Fits large and small brake necks.
- Internal porting for higher flow rate.
- Tool designs for volume or pressure fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- All phases of evacuation and fill cycle internal to tool are automatically controlled by the evacuate and fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.
- Tool designed with independent blowdown circuit for fluid circuit clean out.
- Optional straight or 90° manifolds.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 4.25 lbs (2 kg)

Fluid. . . . . Brake Fluid  
Fluid & Scavenge Port Fitting . . . . . 3/8" JIC

Vacuum Port Fitting. . . . . 1/2" JIC

Blowdown Port Fitting. . . . . 1/4" DIA one touch connector

Air Supply Pressure. . . . .70 psig (4.9 kg/cm<sup>2</sup>) Min.

Air Port Fitting . . . 1/4" Dia. one Touch Connectors

Flow Capacity

Fluid or Vacuum or Air Blowdown. 0.82 Cv Typical

Maximum Fluid Pressure. . . . .150 psi

### Flow Rates: DOT 3 Brake Fluid

3/8" Hose		
Fill Pressure	L/sec	GPM
70 PSI (4.8 BAR)	0.2	3
90 PSI (6.2 BAR)	0.24	3.8



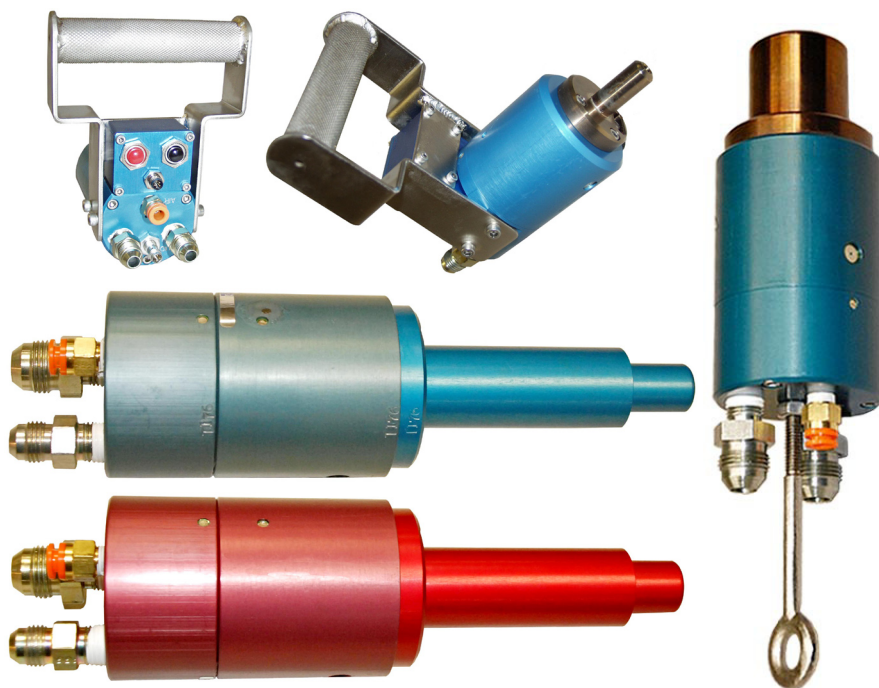
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## FEATURES

- Simple attachment
- Air operated valve
- Drip free operation
- High fluid flow rate
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



## Series 115 Transmission Fill Tool

The PCU Compufill Series 115 Transmission Fill Tool connects to engine systems for filling. This tool adapts the filling equipment to the transmission system.

The PCU Compufill Series 115 tool can be operated in conjunction with all PCU and other compatible transmission fill machines. This series of tools includes models which can be attached to most transmission fill tubes or transmission threaded ports.

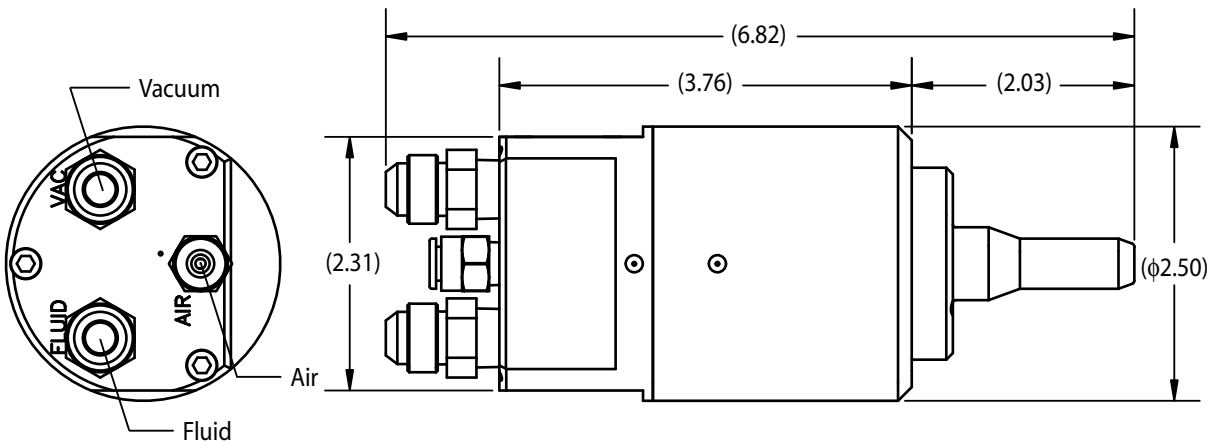
Typical tool operation is for the operator to locate the tool onto the transmission fill port and start cycle.

After filling, the fill machine will shut off fluid and open the valve for dripless operation. The operator can then remove the fill tool from the transmission system.

The PCU Compufill Series 115 tool provides flexibility from manual operations to those which are fully automated when attached to an tool presentation arm.

Series 115 tools can be easily modified to meet your application. Please contact our Order Department at (1-937-299-5594) for your application requirements.

## Series 115 Transmission Fill Tool



- Tools are used for manual connect - pick and place - semi-auto attachment to vehicle transmissions.
- Fits large and small transmission fill ports.
- Tool designs for volume fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- Evacuation and fill cycle internal to tool are automatically controlled by the evacuate and fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 2 lbs (0.91 kg)	Flow Capacity
Fluid . . . . . Transmission Fluid	Fluid . . . . . 0.9 Cv Typical
	Vacuum . . . . . 0.73 Cv Typical
Fluid/Dripless Port Fitting . . . . . 3/8" JIC	Typical Fluid Pressure . . . . . 50 to 150 psi
Air Supply Pressure . . . . . 60 psig (4.2 kg/cm <sup>2</sup> ) Min.	
Air Port Fitting . . . . . 1/4" Dia. one Touch Connector	



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## Series 117 Windshield Washer Tool

### FEATURES

- Simple attachment
- Air operated valve
- Drip free operation
- High vacuum flow rate
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



The PCU Compufill Series 117 Windshield Washer Fill Tool connects to the engine windshield washer bottle for filling.

The PCU Compufill Series 117 tool can be operated in conjunction with all PCU and other compatible windshield washer fill machines. This series of tools includes models which can be attached to most common fill necks.

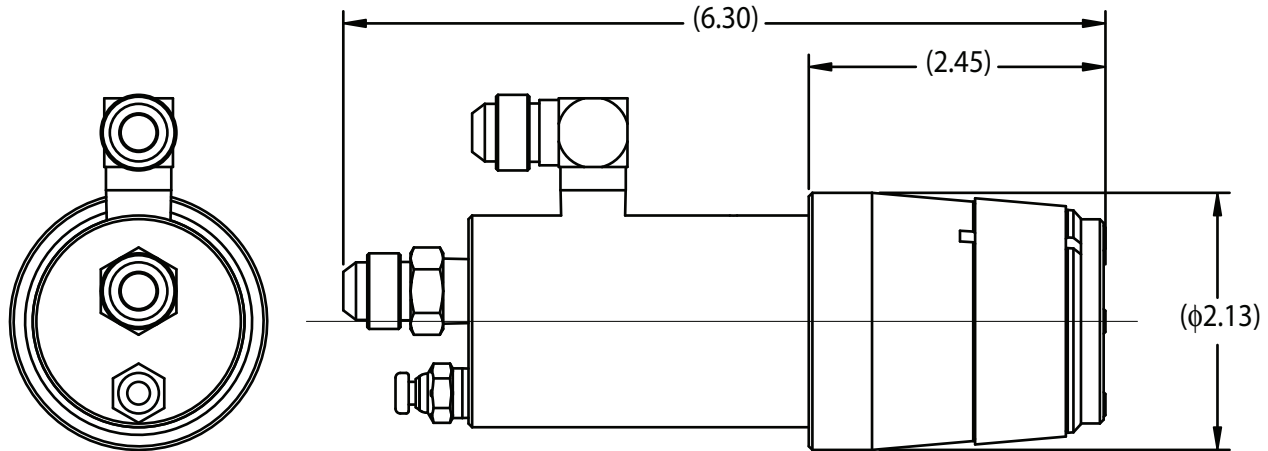
Typical tool operation is that the operator has only to locate the tool onto the fill neck. Upon initiation of the fill cycle, the tool, under control of the fill machine will automatically open tool valve and fill reservoir with a predetermined volume of fluid. Upon

completion, the operator removes the tool and places it back into the tool cup holder. All models are designed to provide minimum drip operation.

Series 117 tools can be easily modified to fit your applications. Contact our Order Department at (1-937-299-5594) for your application requirements.

Please contact PCU Engineering for further information.

## Series 117 Windshield Washer Tool



- Tools can be used with PCU tool presentation arms for manual connect - pick and place - semi-auto attachment to vehicle reservoirs.
- Fits large and small windshield washer necks.
- Large internal porting for high flow rate.
- Tool designs for volume fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- All phases of fill cycle internal to tool are automatically controlled by the fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- Interface to the Compufill Series 117 tool include valve control air, fluid mixture, fluid vacuum and port for water and windshield washer fluid.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and plastic construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight (typical) . . . . .	2.5 lbs (1.13 kg)	Air Port Fitting . . . 1/4" Dia. one Touch Connectors
Fluid. . . . .	Windshield Washer and Water	Flow Capacity Fluid (Typical) @ 30 PSI . . . . . 0.31 L/sec
Fluid/Vacuum Port Fitting . . .	3/8" or 1/2" SAE FL	Maximum Fluid Pressure. . . . . 30 psi
Air Supply Pressure . . . .	60 psig (4.2 kg/cm <sup>2</sup> ) Min.	



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## Series 120 Oil Fill Tool

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### FEATURES

- Simple attachment
- Drip free operation
- High oil flow rate
- Pick-N-Place
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



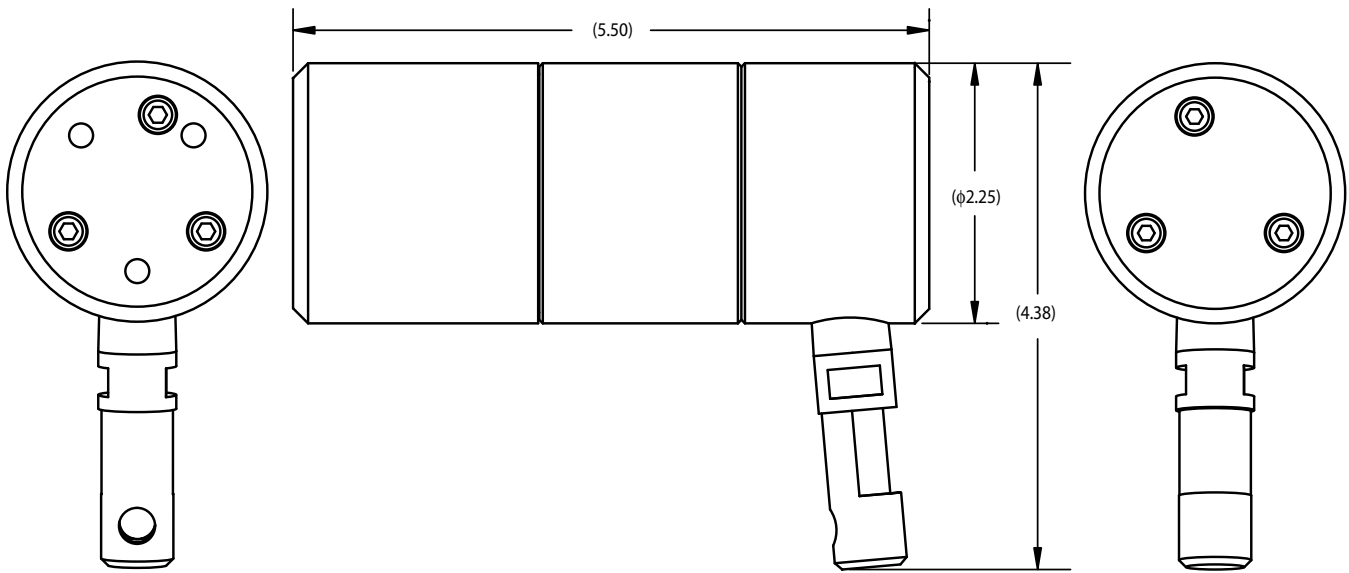
The PCU Compufill Series 120 Fill Tool connects to front or rear differential for filling. This tool adapts the filling equipment to the differential system.

Typical tool operation is for only the operator to locate the tool into the fill port. Upon initiation of the fill cycle, the tool, under control of the fill machine will fill to a

specified volume. Upon completion, the tool will shut off fluid and start dripless cycle. All models are designed to provide minimum drip operation.

Series 120 tools can be easily modified to fit your fill port. Contact our Order Department at (1-937-299-5594) for your application requirements.

## Series 120 Oil Fill Tool



- Fits large and small fill ports.
- Large internal porting for high flow rate.
- Tool designs for volume fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- All phases of evacuation and fill cycle internal to tool are automatically controlled by the fill machine.
- Interfaces to the Compufill Series 120 tool include fill port and vacuum (dripless port).
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 3 lbs (1.45 kg)	Fluid/Vacuum Port Fitting . . . . . 1/4" NPT (Female)
Fluid . . . . . Oil	Min. Fluid Pressure . . . . . 30 psi



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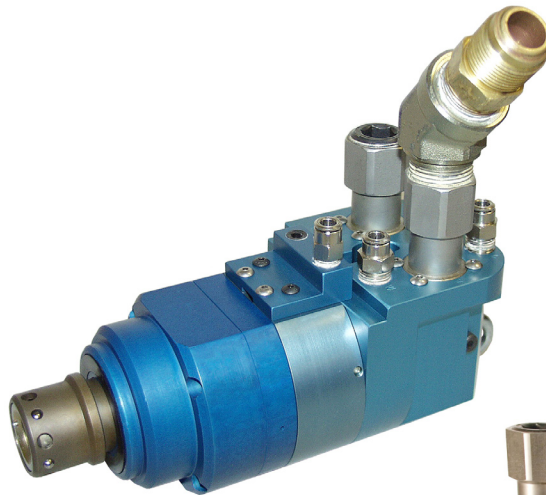
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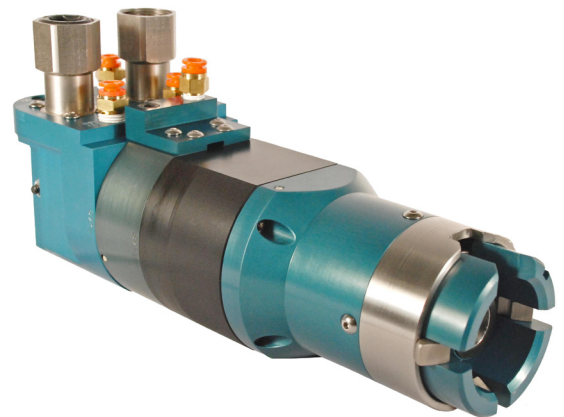
## Series 106 Radiator Leak Test Tool

### FEATURES

- Simple attachment
- Air operated valve
- High flow rate
- Automated disconnect
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light weight



**Internal BalLoc Style**



**External Thread Lock Style**

The PCU Compufill Series 106 Leak Test Tool connects to engine cooling systems for pressure decay test. This tool adapts the test equipment to the cooling system.

This series of tools includes models which can be attached to most common radiator fill necks and surge tank inlets.

Typical tool operation is semi-automatic in that the operator has only to locate the tool onto the fill neck. Upon initiation of the fill cycle, the tool, under control of the fill machine will automatically seat and seal in order that the pressure test operation

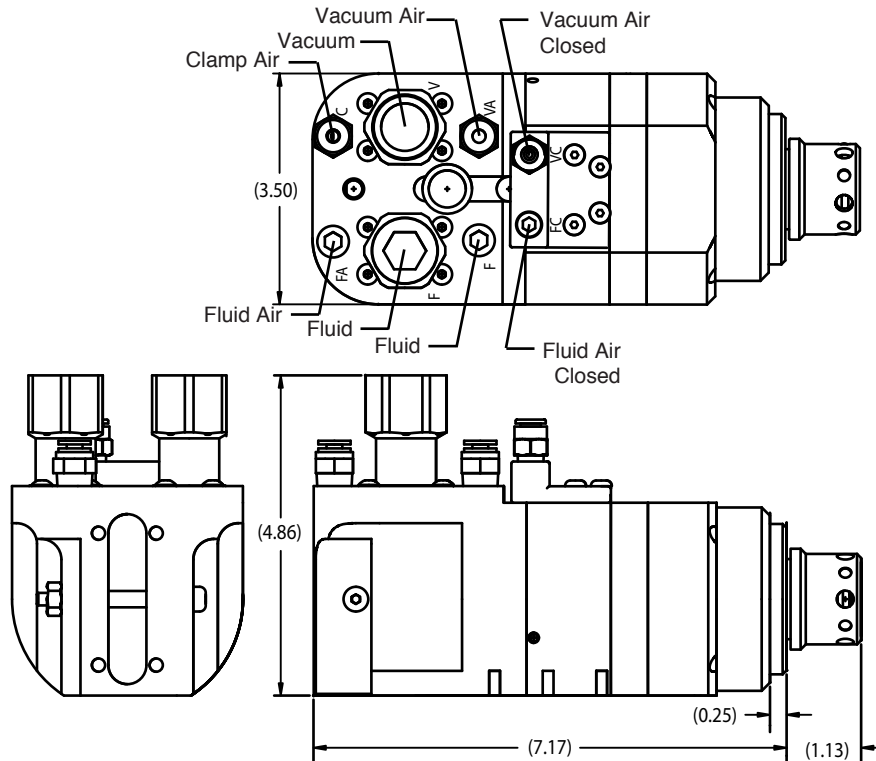
can proceed. Upon completion of these operations, the tool unseats and can then be retracted.

The PCU Compufill Series 106 tool provides flexibility from manual operations to those which are fully automated when attached to an tool presentation arm.

Series 106 tools can be easily modified for power steering, fuel or other fluid applications. Contact our Order Department at (1-937-299-5594) for your application requirements.



## Series 106 Radiator Test Tool



### External Thread Lock Shown

- Tools can be used with PCU tool presentation arms for manual connect - pick and place - semi-auto attachment to vehicle reservoirs.
- Fits large and small radiator necks and all size surge tanks.
- Large internal porting for high flow rate.
- All phases of evacuation and fill cycle internal to tool are automatically controlled by the evacuate and fill machine.
- Tools are compatible for operation with programmable logic, relay, or computer based control systems.
- Interfaces to the Compufill Series 106 tool include clamp, seal and valve control air.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 3.25 lbs (1.5 kg)	Air Port Fitting . . . 1/4" Dia. one Touch Connectors
Fluid. . . . . Air	Flow Capacity Fluid. . . . . 9.3 Cv Typical
Pressure Port Fitting . . . . . 1/2", 3/4", or 1" Barbed Hose (Other port sizes are available)	Maximum Fluid Pressure. . . . . 50 psi
Min. Air Supply Pressure .70 psig (4.9 kg/cm <sup>2</sup> ) Min.	Radiator/Surge Tank . . . . . Common sizes for Rad & Surge Tanks



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## Series 116 Fuel Test Tool

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### FEATURES

- Simple attachment
- Air operated valve
- Clamp and seal detection
- Drip free operation
- High fluid flow rate
- Automated disconnect
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



The PCU Compufill Series 116 Fuel Fill Tool connects to engine fuel systems for leak test and/or filling. This tool adapts the filling equipment to the fuel system.

The PCU Compufill Series 116 tool can be operated in conjunction with all PCU and other compatible fuel fill machines. This series of tools includes models which can be attached to most common fuel fill necks.

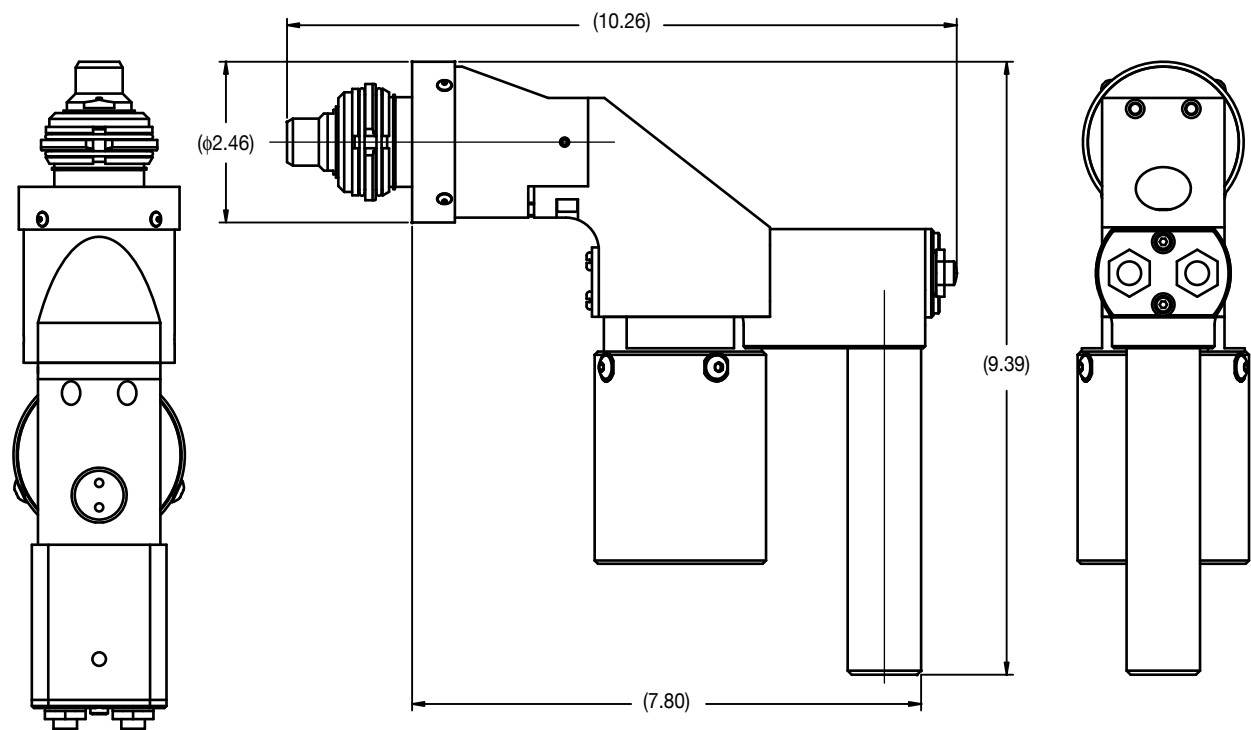
Typical tool operation is semi-automatic in that the operator has only to locate the tool onto the fill neck. Upon initiation of the fill cycle, the tool, under control of the fill machine will automatically seat and seal check for proper clamping before leak check, and filling operation can proceed.

Upon completion of these operations, the tool unseats and can then be retracted. All models are designed to provide minimum drip operation.

The PCU Compufill Series 116 tool provides flexibility from manual operations to those which are fully automated when attached to an tool presentation arm.

Series 116 tools can be easily modified to meet your applications. Contact our Order Department at (1-937-299-5594) for your application requirements.

# Series 116 Fuel Test Tool



- Tools can be used with PCU tool presentation arms for manual connect - pick and place - semi-auto attachment to vehicle reservoirs.
- Fits large and small fuel necks.
- Large internal porting for high flow rate.
- Tool designs for volume fill.
- Tools are built with spring returns on the valve ports for fail-safe operation during power loss.
- Tool design includes the ability to detect if properly clamped on fill neck.
- All phases of fill cycle internal to tool are automatically controlled by the fill machine.
- Tools are compatible for intrinsically safe operation with programmable logic, relay, or computer based control systems.
- Interfaces to the Compufill Series 116 tool include clamp, seal and valve control air, and fluid air.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

## TECHNICAL SPECIFICATIONS:

Weight . . . . . 4.57 lbs

Flow Capacity . . . . . 2.93 Cv Typical

Fluid . . . . . Petrol

Maximum Fluid Pressure . . . . . 30 psi

Fluid Port Fitting . . . . . (female) 3/4" NPT  
(Other sizes are available)

Air Supply Pressure . . . 110 psig (7.7 kg/cm<sup>2</sup>) Min.

Air Port Fitting . . . 1/4" Dia. one Touch Connectors

## PATENTS:

This tool is manufactured under U.S. Patent No. 6,799,614 B1.



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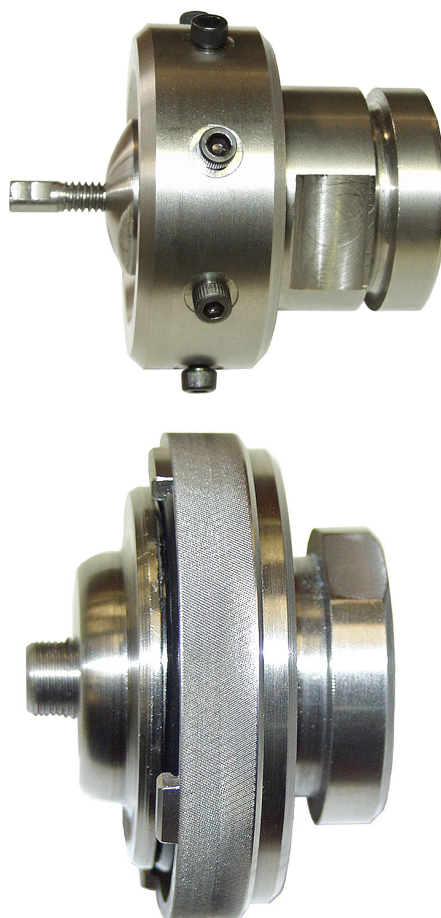
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## Series 99 and 106 Manual Adapters

### FEATURES

- Simple attachment (manual or auto clamp)
- Secondary reservoir fill
- Repair Bay Fill
- Dry evacuation circuit
- Drip free operation
- High vacuum flow rate
- High fluid flow rate
- Manual disconnect
- Fail safe operation
- Rugged & durable construction
- Easily maintained
- Light Weight



**(Or drop sleeve to lock)**

The PCU Compufill Series 99 and 106 manual adapters is the interface between a reservoir and the filling tool adapter. When multiple fill necks exist on the same production line, custom adapters are required to use one common tool.

Series 99 adapters adapt to brake or power steering fill necks and series 106 adapters adapt to radiator/coolant fill necks.

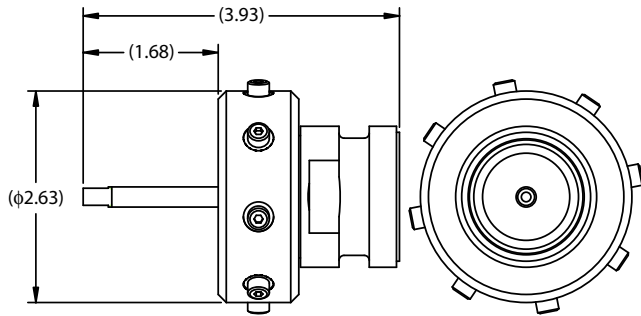
Typical tool operation requires an operator to insert adapter in fill neck, rotate sleeve

to lock and seal. Operator will locate fill tool on adapter and initiate start cycle. Upon completion, operator removes tool and adaptor.

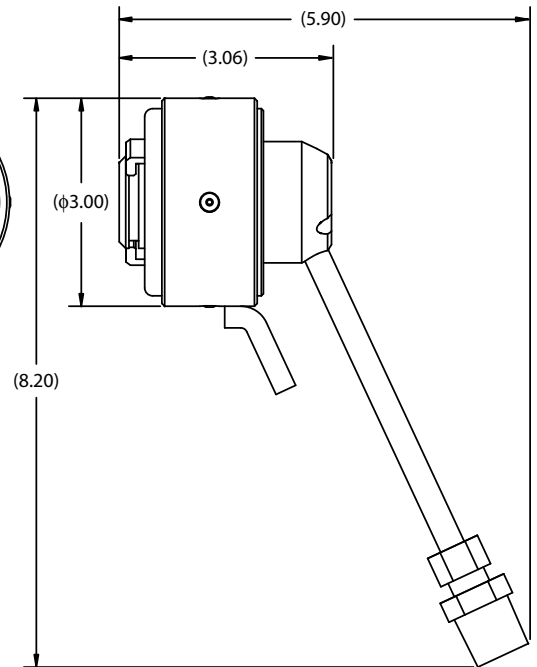
Series 99 and 106 manual adapters can be easily modified for your application. Also, semi-automatic adaptors are available which clamp onto reservoir by air activated piston. Contact PCU engineering for your application requirements.

## Series 99 and 106 Manual Adapters

**Series 99**



**Series 106**



\* Typical dimensions are shown, your dimensions will vary per your application.

- Adaptors are used for - Pick-and-Place - semi-auto attachment to vehicle reservoirs.
- Fits large and small fill necks and all size surge tanks.
- Large internal porting for high flow rate.
- Adaptor designs for volume or pressure fill.
- Adaptors can include the ability to fill the overflow bottle during the normal cycle.
- Interfaces to the Compufill Series 106 tool include clamp, seal and valve control air, coolant mixture and vacuum.
- A robust design and durable construction work well in a constant use production environment.
- Aluminum and stainless steel construction are used to minimize weight and eliminate corrosion.

### TECHNICAL SPECIFICATIONS:

Weight . . . . . 1.0 lbs (0.45 kg)

Flow Capacity . . . . . Same as fill tool

Maximum Fluid Pressure . . . . .  
 . . . . . Based on maximum reservoir fill pressure



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# ACCESSORIES Catalog






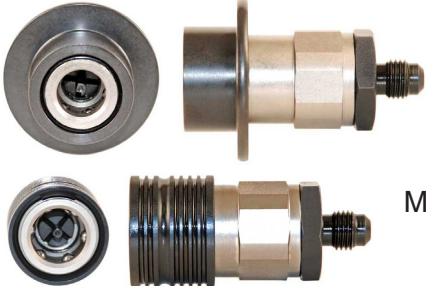
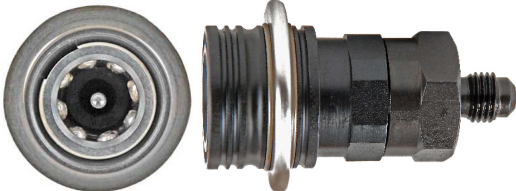

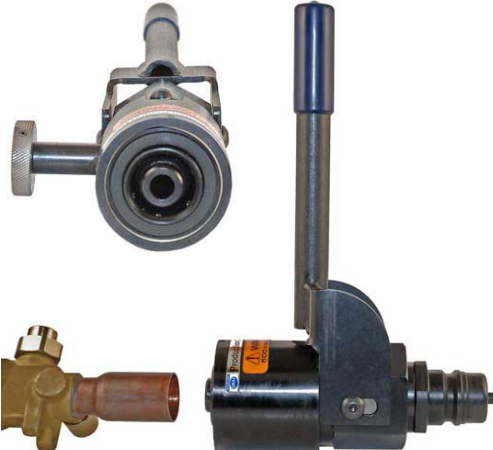



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to suit your application.**

 <p>Series 250</p>	 <p>Series 410</p>
 <p>Series 500</p>	 <p>Model 86</p> <p>Model 87</p> <p>Series HFC-134a</p>
 <p>Series 25-Model EPF</p>	 <p>Series 91</p>
 <p>Series 98</p>	 <p>Series 93</p> <p>Series 10</p>
 <p>Series 250 Evac &amp; Charge</p>	 <p>Power Coupler</p>

# TABLE OF CONTENTS

## Accessories

CompuTest 2004 Tool Test Machine - (PB026)

Test Bottle Lo & Hi Side Fittings - (PB046)

Tool Repair Box Kits - (PB045)



# Production Control Units, Inc.-Coupler Products

2280 West Dorothy Lane, Dayton, Ohio 45439-1892 USA - Phone (937) 299-5594 - FAX: (937) 299-4843

PCU Web Site: [www.pcuinc.com](http://www.pcuinc.com) - E-mail: [couplers@pcuinc.com](mailto: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

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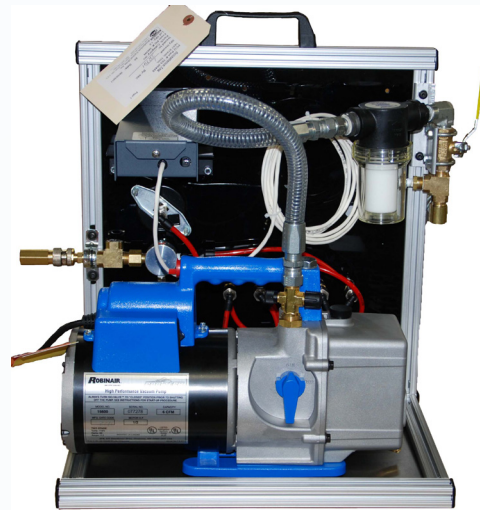
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Along with your request for quote, please provide (1) copy of print showing area to be sealed, and (3) quality sample parts.



# Computest 2004 Tool Test Machine



## FEATURES:

- Full Testing Capability
- Light Weight, Portable
- Connects to Standard 120vac/15a outlet
- Universal Applications
- Operates Using existing Compressed Air

## COMPUTEST 2004

The Computest 2004 is ideal for bench use, light weight and portable with a small profile. It has full testing capability for validating fill head functionality and uses existing compressed air service providing a nominal 100psig. The Computest 2004 connects to any standard 120vac/15a outlet. It is universal for all PCU and other manufactures' fill heads, adapters and fill tools.

Features	
Vacuum Pump	5 CFM 2-Stage - Rotary Vane
Vacuum Controller	VRC
Test Capability	Air, Vacuum

## TECHNICAL SPECIFICATIONS:

Weight (approximate) . . . . . 16 lbs. (7.3kg)  
Vacuum Indicating Range . . . . . 0.01–50.00 Torr  
Vacuum Pump . . . . . 4 Torr Max  
Air Regulator . . . . . 0 - 100psig (Max 300 psig)  
Temperature Operating Range 0° - 50°C (32° - 122°F)

## UTILITIES REQUIRED:

Electrical Power . . . . . 10/120vac 15a 50/60HZ  
Factory Air Supply . . . . . 100 PSIG (7.03kg/cm<sup>2</sup>)

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## Test Bottle Fittings

### SAE J-639

#### FEATURES

- SAE J639 Compatible
- HFC-134a
- Long Life Heat Treated Housings
- Low Maintenance
- Interchangeable Components



High-Side  
High-Flow

P/N 102519-001



High-Side  
10 mm Core

P/N 102519-010



Low-Side  
8 mm Core

P/N 102519-016



Low-Side  
Schrader Core

P/N 47791



High-Side  
Schrader Core

P/N 45264

PCU Standard Test Bottle Fittings utilize heat-treated parts for long life and all designs comply with SAE J-639 standard for HFC-134a refrigerant ports.

#### PART # 102519-001 High-Side

High-flow fittings provides a large flow rate with a flow coefficient of Cv 0.7. High-flow fittings are quickly repairable and utilize standard series 250 components. The simple interchangeability allows quick seal change or a quick change to a different style of end-cap. High-flow fitting can be modified for slower flow rates to comply with your application. Please contact PCU Engineering for your application requirements.

#### PART # 102519-010 High-Side

High-side 10 mm core provides a typical flow coefficient of Cv 0.4. Two piece long-life construction makes use of heat-treated outside housing and 10 mm Schrader-Bridgeport valve core.

#### PART # 102519-016 Low-Side

Low-side 8 mm core provides a typical flow coefficient of Cv 0.26. Two piece long-life construction makes use of heat-treated outside housing and 8 mm Schrader-Bridgeport valve core.

#### PART # 45264 High-Side

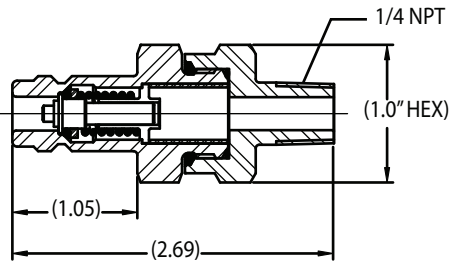
High-side schrader core provided a typical flow coefficient of 0.31 Cv. Aluminum Construction is for low usage applications.

#### PART # 47791 Low-Side

Low-side schrader core provided a typical flow coefficient of 0.28 Cv. Aluminum Construction is for low usage applications.

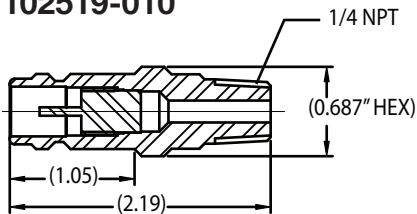
## Test Bottle Fittings SAE J-639

### 102519-001



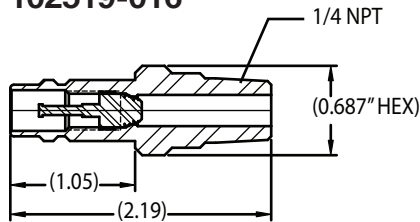
P/N	ITEM
102518-001	Body
61824	Spacer
61825	Perch
61840	O-Ring Retainer
61844	Stem
61645	End Cap
61879	O-Ring, End Cap
61880	O-Ring, Valve
69004	Spring
97013	O-Ring, End Cap

### 102519-010



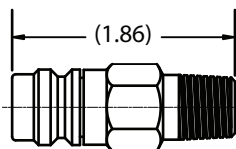
P/N	ITEM
317-47791	Valve Core
102518-004	Body

### 102519-016



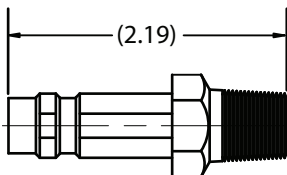
P/N	ITEM
317-47792	Valve Core
102518-005	Body

### 45264



P/N	ITEM
45263	End Cap
317-45264	Fitting

### 47791



P/N	ITEM
47790	End Cap
317-47790	Fitting
OR011-134a	O-Ring



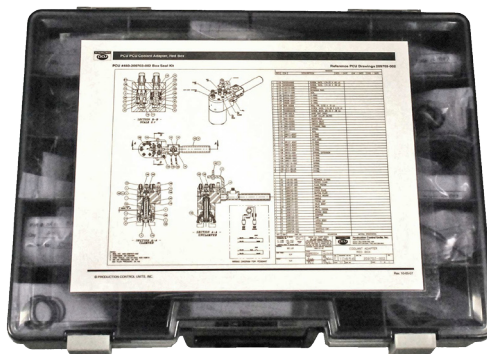
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## FEATURES

- Easy Storage
- Easy Access
- Keeps Seals Contaminate Free



The Production Control units box and tool kits provide convenient storage and easy access to seals. Each seal size is contained in its own compartments along with required hand tools to rebuild tools. Kits include drawings of seal kit, tool assembly, and exploded view if applicable.

**Box Kits** include 10 rebuild kits for routine tool rebuilds.

**Tool Kits** includes one seal kit, hardware, fittings and high wear components and hand tools.

PCU Engineering will customize rebuild kits to fit your needs.



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Series 25



Series 86



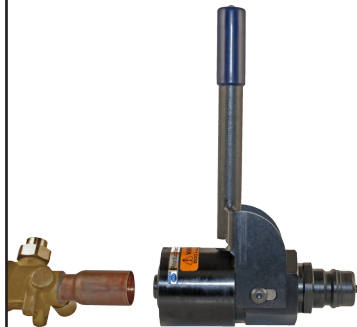
Series 87



Series 91



Series 93



Series 98



Series 100 & 101



Series 109



Series 250



Series 410



Series 500



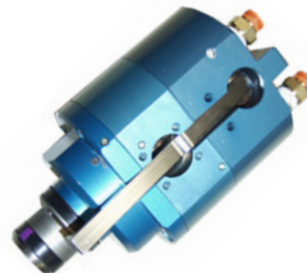
Series 250 Evac & Charge



Series 13000



Series 104



Series 106



Series 106 Adapter

**Call our Coupler & Specialty Tooling Team for more information.**

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Web Site: [www.PCUInc.com](http://www.PCUInc.com) Email: [couplers@PCUInc.com](mailto:couplers@PCUInc.com)