 American®

## Right Angle Flow Controls



American Cylinder Co., Inc.

Series II Quick Connect-Disconnect  
Series III Threaded Fitting Connect

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## RIGHT ANGLE FLOW CONTROLS

### Series II Quick Connect-Disconnect

### Series III Threaded Fitting Connect

Designed to fit directly onto American's air cylinders, American Right Angle Flow Controls offer outstanding features and benefits at the most competitive prices.

## Features and Benefits

### Series II and III

**Full 360° Rotation** - Complete full rotation for alignment.

**Nickel Plated Brass Construction** - Allows for high linear flow & precision control. See charts for turns and air flow.

**Optional Adjustment** - Manual knob or screw.

**Tubing** - For best results, use nylon tubing. For usage with other tubing material, consult your American Cylinder distributor.

### Series II Only

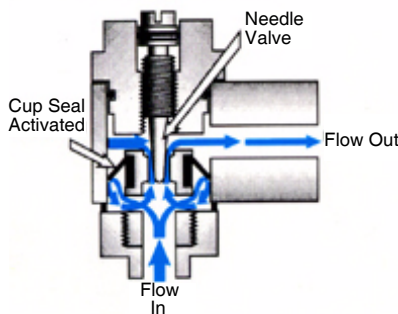
**Instant Connect and Disconnect** - No additional fittings needed. Tubing is permanently locked into place until deliberate effort is made to disconnect.

## Flow Control Operation

### Metered

#### Flow Direction

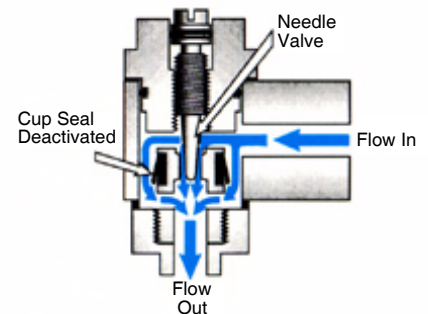
Operating pressure forces the cup seal outward against the valve wall forming an air tight seal. All flow must now go through the needle valve, allowing precise flow control.



### Unmetered

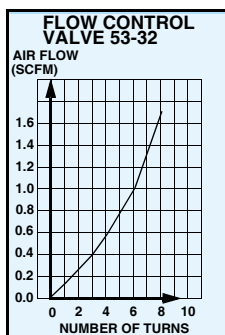
#### Flow Direction

Operating pressure forces the cup seal inward away from the valve wall. This allows flow to bypass the restriction of the needle valve.

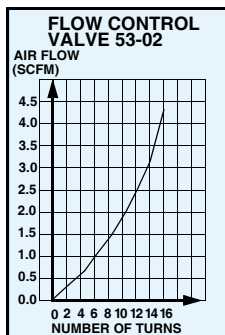


## Air Flow Specifications

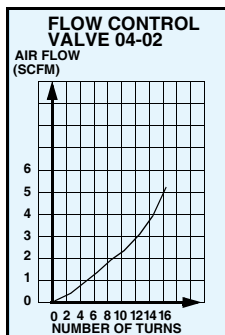
Air flow is determined with 85 PSI at the in port and with 70 PSI at the outlet.



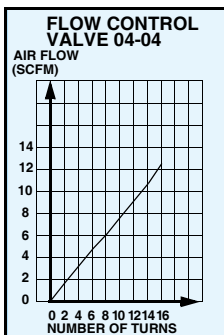
Reverse Flow -  
 Adjustment fully open: 2.12 SCFM  
 Adjustment fully closed: 1.52 SCFM



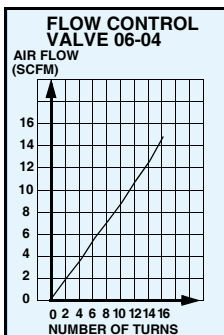
Reverse Flow -  
 Adjustment fully open: 3.78 SCFM  
 Adjustment fully closed: 1.0 SCFM



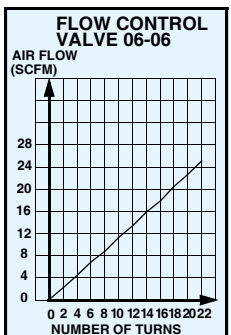
Reverse Flow -  
 Adjustment fully open: 5.79 SCFM  
 Adjustment fully closed: 1.17 SCFM



Reverse Flow -  
 Adjustment fully open: 12.96 SCFM  
 Adjustment fully closed: 4.71 SCFM

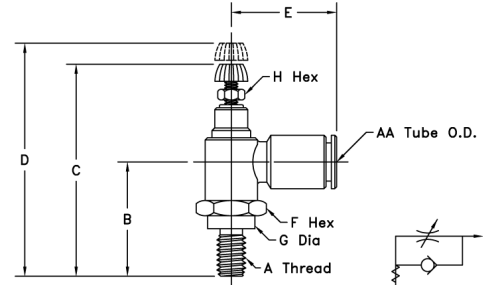
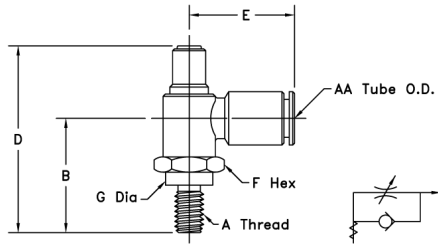


Reverse Flow -  
 Adjustment fully open: 16.45 SCFM  
 Adjustment fully closed: 5.40 SCFM



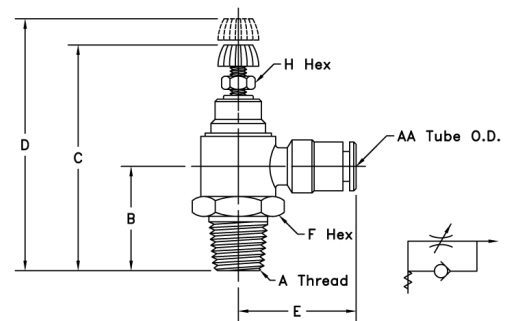
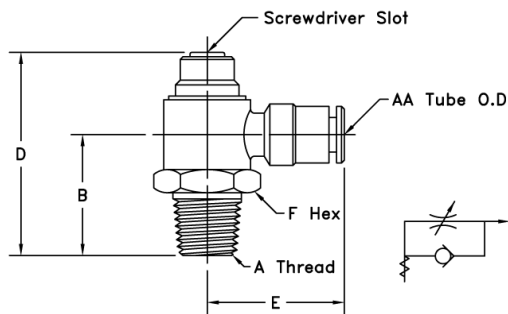
Reverse Flow -  
 Adjustment fully open: 30.90 SCFM  
 Adjustment fully closed: 15.11 SCFM

## Series II Quick Connect-Disconnect



Use on American Cylinders with the following Port Sizes	Part No.	AA	A	B	D	E	F	G
10-32 UNF	ACS 53-32	5/32"	10-32 UNF	.61	1.10	.71	.32	.31

Part No.	AA	A	B	C	D	E	F	G	H
ACK 53-32	5/32"	10-32 UNF	.61	1.45	1.61	.71	.32	.31	.22



Use on American Cylinders with the following Port Sizes	Part No.	AA	A	B	D	E	F
1/8" NPT	ACS 53-02	5/32"	1/8" NPT	.78	1.44	.87	.55
1/8" NPT	ACS 04-02	1/4"	1/8" NPT	.78	1.44	.96	.55
1/4" NPT	ACS 04-04	1/4"	1/4" NPT	.94	1.61	1.04	.75
1/4" NPT	ACS 06-04	3/8"	1/4" NPT	.94	1.61	1.14	.75
3/8" NPT	ACS 06-06	3/8"	3/8" NPT	.96	1.80	1.20	.87

Part No.	AA	A	B	C	D	E	F	H
ACK 53-02	5/32"	1/8" NPT	.78	1.79	2.01	.87	.55	.28
ACK 04-02	1/4"	1/8" NPT	.78	1.79	2.01	.96	.55	.28
ACK 04-04	1/4"	1/4" NPT	.94	1.99	2.23	1.04	.75	.28
ACK 06-04	3/8"	1/4" NPT	.94	1.99	2.23	1.14	.75	.28
ACK 06-06	3/8"	3/8" NPT	.96	2.22	2.54	1.20	.87	.39

## Specifications

### Operating Temperature Range -

-4°F to 176°F (-20°C to 80°C)

### Maximum Inlet Pressure -

150 PSI

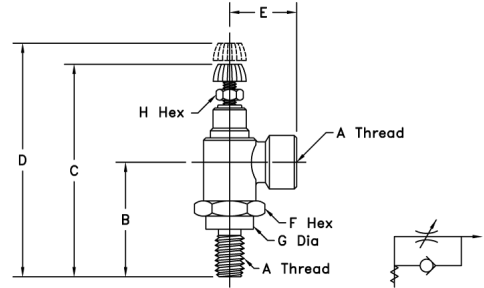
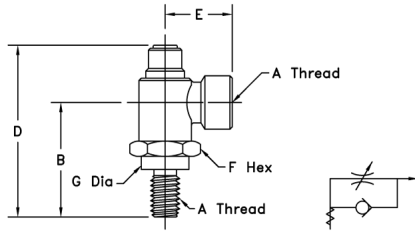
## Materials

**Body** - Nickel Plated Brass

**Needle** - Brass

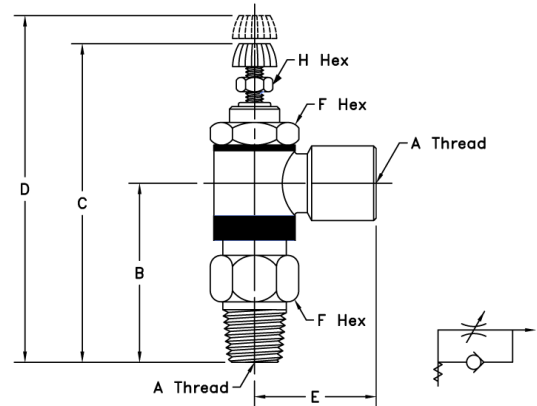
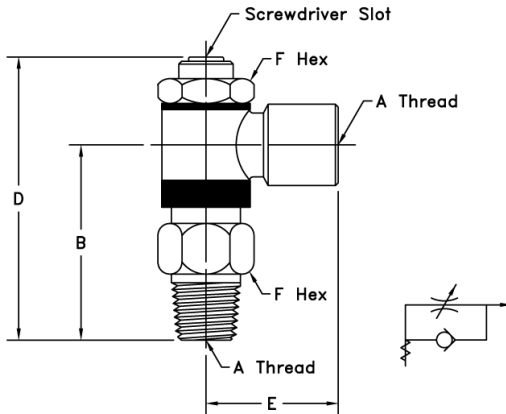
**Seals** - Buna-N

## Series III Threaded Fitting Connect



Use on American Cylinders with the following Port Sizes	Part No.	A	B	D	E	F	G
10-32 UNF	ACSP 2023-32	10-32 UNF	.61	1.10	.41	.32	.31

Part No.	A	B	C	D	E	F	G	H
ACKP 2023-32	10-32 UNF	.61	1.45	1.61	.43	.32	.31	.22



Use on American Cylinders with the following Port Sizes	Part No.	A	B	D	E	F
1/8" NPT	ACSP 2023-02	1/8" NPT	1.20	1.75	.79	.51
1/4" NPT	ACSP 2023-04	1/4" NPT	1.42	1.97	1.00	.67
3/8" NPT	ACSP 2023-06	3/8" NPT	1.46	2.34	1.10	.79

Part No.	A	B	C	D	E	F	H
ACKP 2023-02	1/8" NPT	1.20	2.13	2.32	.79	.51	.28
ACKP 2023-04	1/4" NPT	1.42	2.40	2.62	1.00	.67	.28
ACKP 2023-06	3/8" NPT	1.46	2.86	3.18	1.09	.78	.39

## Specifications

**Operating Temperature Range -**  
-4°F to 176°F (-20°C to 80°C)

**Maximum Inlet Pressure -**  
150 PSI

## Materials

**Body -** Nickel Plated Brass

**Needle -** Brass

**Seals -** Buna-N



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## **American Cylinder Co., Inc.**

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### **ON THE INTERNET**

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## **Warranty**

American Cylinder Co., Inc. warrants its products to be free from defects in material and workmanship under normal wear and service for a period of 90 days from date of shipment of the order. American Cylinder Company shall have no liability under this warranty if: 1) The product is used other than in accordance with specifications. 2) The product is subjected to abuse, negligence, accident, misapplication, or unintended use. 3) The product is manufactured to buyer's specifications.

Manufacturer's liability shall be limited to allowance of credit or replacement of defective product. American Cylinder Company shall not be liable or responsible for injuries or damages to persons or property arising out of the use or operation of American Cylinder products.

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