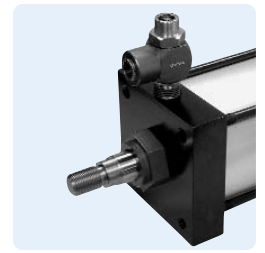


## Right Angle Flow Controls (RAF and RAFK)

Mead's right-angle flow control valves provide fast, accurate control in a convenient, compact package. Designed specifically for controlling flow to pneumatic actuators, they come standard with push-in fittings, pre-applied Teflon based thread sealant, an adjustment depending on the type and convenient swivel feature for ease of tubing alignment. Both the RAF and RAF-K mount directly to your cylinder's ports. The RAF adjustment is a recessed screw driver slot. The RAF-K has a knob adjustment that can be tightened once set. For precision in-line flow controls, see Mead's Dyla-Trol flow controls on page 59.



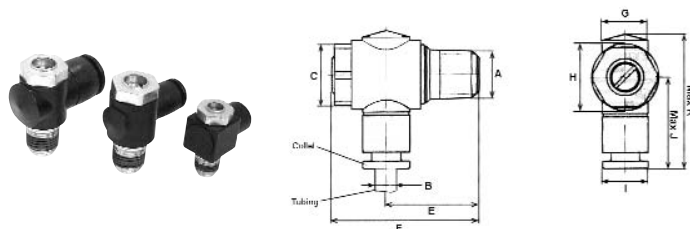
### Specifications - RAF

**Materials :** Black Anodized Aluminum Body  
Zinc Plated Brass Fittings  
Stainless Steel Needle  
Buna N Seals.

**Pressure:** 15-145 PSI

**Temperature:** -14°F to 160°F

**Cracking Pressure:** 5 PSI

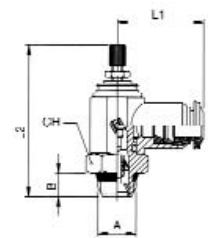


### Specifications - RAFK

**Materials:** Brass-Nickel Plated Body  
NBR 70 Seals  
C72 Dacromet Shaft Clip

**Pressure:** 15-145 PSI

**Temperature:** 0°F to 160°F



## Ordering and Specification:

Model Number	A	B	C	E	F	G	H	I	J	K
RAF-5/32x2	1/8 NPTF	5/32"	.511	.780	1.26	.433	.591	.433	.843	1.24
RAF-4x2	1/8 NPTF	1/4"	.511	.780	1.26	.512	.591	.512	.944	1.33
RAF-4x4	1/4 NPTF	1/4"	.669	1.02	1.61	.512	.748	.512	1.06	1.50
RAF-6x4	1/4 NPTF	3/8"	.669	1.02	1.61	.709	.748	.709	1.06	1.57
RAF-8x8	1/2 NPTF	1/2"	.866	1.14	1.85	.709	.939	.709	1.14	1.73

	Tube	Pipe			min.	max.	
Part. No.	O.D.	Thd.	A	B	L1	L2	CH
RAFK-2x2	1/8	1/8	.217	.827	1.614	1.830	.551
RAFK-5/32x2	5/32	1/8	.217	.827	1.614	1.830	.551
RAFK-4x2	1/4	1/8	.217	.866	1.614	1.830	.551
RAFK-4x4	1/4	1/4	.276	.984	1.850	2.086	.669

## Female DIN Solenoid Connectors

Mead's DIN solenoids feature a totally encapsulated coil with 3 male prongs, allowing fast and easy connections. A female DIN connector (ordered separately) quickly attaches to the solenoid's prongs and is secured by a single screw.

Mead offers 3 types of DIN connectors to facilitate connections to the solenoid. Model PVD1 is a connector with a 1/2" conduit entry and no lead wires. Model PVD2 also has a 1/2" conduit entry but includes 20" of cabled lead wire. Model PVD3 is a strain relief connector that includes 72" of cabled lead wire.



Model PVD1



Model PVD2



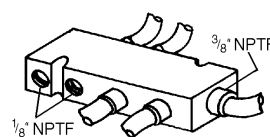
Model PVD3

## Nylon & Polyethylene Tubing

Part Number	Tube Size	Material	Burst Pressure
11NAT*	1/16" I.D.	Polyurethane	400 PSI
22NAT	1/8" O.D.	Nylon	500 PSI
532NAT	5/32" O.D.	Nylon	500 PSI
44P NAT	1/4" O.D.	Polyethylene	400 PSI
66P NAT	3/8" O.D.	Polyethylene	600 PSI
88P NAT	1/2" O.D.	Polyethylene	250 PSI

\*Tubing is packaged in 100 ft. lengths, except for 11NAT which is 50 ft. length.

## Tube Manifold



Use the #20 die cast aluminum manifold to simplify piping and cut down on plumbing time. A 3/8" NPTF inlet port provides a common air source for up to eight 1/8" NPTF outlets.

### Dimensions

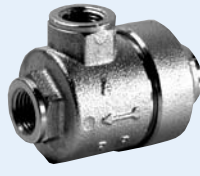
Model No.	Length	Height	Width
#20	4"	1"	1 1/2"



#3 QEV



#1B QEV



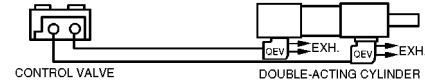
#4 QEV

## Quick Exhaust Valves

Quick exhaust valves (QEV) increase cylinder rod speed by dumping exhaust air directly at the cylinder instead of back through the control valve. Use one QEV in each cylinder port to increase rod speed in both directions.

Using a quick exhaust valve to increase cycling speed allows a smaller, less expensive control valve to be used.

## Circuit with Quick Exhaust Valves



### Flow Patterns

#1B and #2B

#4 and #5



### Specifications and Dimensions

Model No.	Port	Cv	Length	Width	Height
#3 QEV	1/8"	.10*	.13‡	1/2"	1 13/16"
#1B QEV	1/4"	2.71*	2.83‡	1 3/4"	2 17/32"
#2B QEV	3/8"	3.13*	3.43‡	1 7/8"	2 17/32"
#4 QEV	1/2"	3.25*	3.52‡	2.89"	2.21"
#5 QEV	3/4"	3.78*	4.08‡	3.43"	1.26"

\* Inlet port through cylinder port ‡ Cylinder port through exhaust port

Pressure: 30 - 125 PSI #3 QEV, #1B QEV and #2B QEV

15 - 150 PSI #4 QEV and #5 QEV



SV-1



SV-2

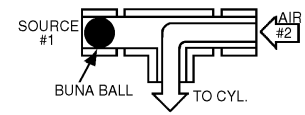
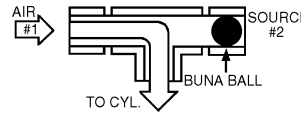
## Shuttle Valves

Use shuttle valves to actuate a cylinder or valve from either of two air sources. Available for 1/8" and 1/4" tubing.

## Flow Patterns

Cylinder Actuated by Source #1

Cylinder Actuated by Source #2



### Specifications & Dimensions

Model No.	Port	Cv	Tubing	Body	Length	Width	Height
SV-2	1/8-27*	.04	1/8" O.D.	Brass	2"	1/16" Hex	1 1/16"
SV-1	1/8"	.32	1/4" O.D.	Alum.	2 3/4"	1"	1"

\* 1/8-27 NPT male

## Check Valve

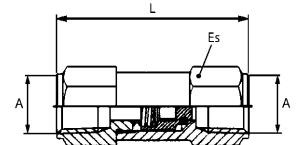
Mead check valves are designed to allow full flow in one direction, and check or stop flow in the other direction.

### Specifications

<b>Materials:</b>	Nickel Plated Brass Body and Piston
	NBR 70 Seals
	Steel Spring
<b>Pressure:</b>	30-120 PSI
<b>Temperature:</b>	0°F to 160°F
<b>Cracking Pressure:</b>	3 PSI

### Check Valve Dimensions

Part. No.	A	L	Es
CV-2	1/8" NPTF	1.437	.512
CV-4	1/4" NPTF	1.850	.669



MM-125



MMS-125



MMB-125



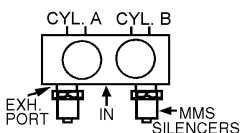
MML-500



MMP-250

## Air Silencers & Breathers

MM, MMS, and MML air silencers reduce exhaust noise by approximately 20%. MMB breather vents prevent contaminants from entering the air component. All models are constructed of sintered bronze (MML are also housed in plastic). MML is designed to have 15% less pressure drop than MM or MMS models. MMP air silencers feature a unique stem for quick connections to tube collets.



MMS Silencers not only serve as sound reducers, but are also low cost speed controls. An adjustable needle valve in the top of each MMS allows for the setting of exhaust rates.

### Specifications and Dimensions

Model No.	Pipe Size	Length	Width	Height	Per Box
MM-019	#10-32*	45/64"	5/16" Hex	45/64"	20
MMB-125	1/8" NPT	7/16"	7/16" Hex	7/16"	20
MM-125	1/8" NPT	1 1/8"	7/16" Hex	7/16"	20
MMS-125	1/8" NPT	29/32"	1 1/2" Hex	1 1/2"	20
MML-125	1/8" NPT	2 1/8"	13/16"	13/16"	20
MMB-250	1/4" NPT	5/8"	9/16" Hex	9/16"	10
MM-250	1/4" NPT	13/8"	9/16" Hex	9/16"	10
MMS-250	1/4" NPT	1 11/64"	9/16" Hex	9/16"	10
MML-250	1/4" NPT	2 1/4"	13/16"	13/16"	5
MMP-250	1/4" O.D. Stem	2 47/64"	13/16"	13/16"	1
MMP-006	6mm O.D. Stem	2 47/64"	23/32"	23/32"	1
MMB-375	3/8" NPT	3 1/4"	11/16" Hex	11/16"	5
MM-375	3/8" NPT	1 1/2"	11/16" Hex	11/16"	5
MMS-375	3/8" NPT	1 17/64"	11/16" Hex	11/16"	5
MML-375	3/8" NPT	3 7/16"	1 1/4"	1 1/4"	5
MMP-375	3/8" O.D. Stem	3 7/64"	23/32"	23/32"	1
MMP-010	10 mm O.D. Stem	3 7/64"	23/32"	23/32"	1
MMB-500	1/2" NPT	7 7/8"	7/8" Hex	7/8"	5
MM-500	1/2" NPT	17 7/8"	7/8" Hex	7/8"	5
MMS-500	1/2" NPT	17 1/64"	7/8" Hex	7/8"	5
MML-500	1/2" NPT	39 1/16"	1 1/4"	1 1/4"	5

\* Furnished with gasket