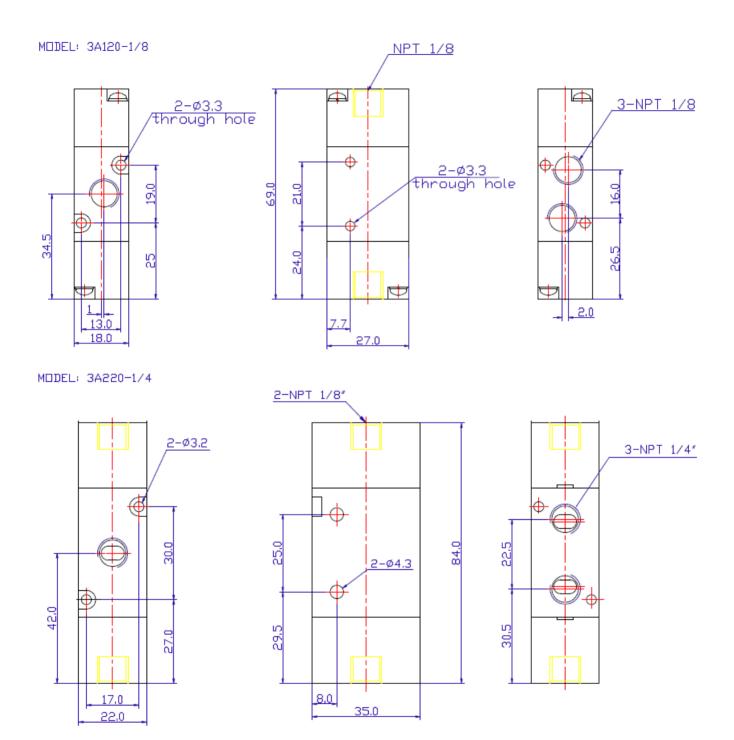
# **3A120-420 SERIES AIR PILOT VALVE**



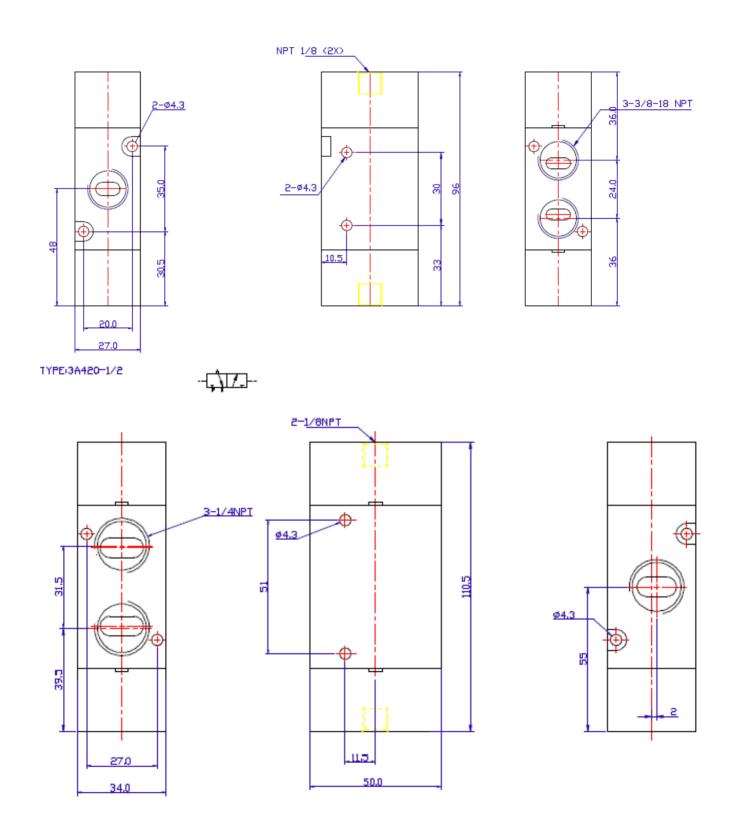
Valve Model	3A120-1/8	3A220-1/4	3A320-3/8	3A420-1/2
Port & Mounting	Body Ported			
Action & Motion	Double Air Pilot, Spool Design			
Operating Pressure	Valve: 0 to 115 PSI, Pilot: 40 PSI			
Port Sizes	1/8 NPT	1/4 NPT	3/8 NPT	1/2 NPT
C <sub>v</sub>	0.67	0.78	1.68	2.79
SFCM @ 100PSI	25	53	80	160
Working Medium	40 micron filtered air or inert gas			
Valve Body Material	Anodized Aluminum			
Seal Material	NBR (Buna N)			
Lubrication	Not Required			

# 3A120-420 SERIES AIR PILOT VALVE DIMENSIONS



# 3A120-420 SERIES AIR PILOT VALVE DIMENSIONS

# MODEL: 3A320-3/8



# 3-Way 2 Air Pilot Valve

# Models 3A120-3A420 Installation Procedure

### Note:

- This valve is designed for air flow only.
- Make sure the pilot sources are operating at pressures specified for the valve.

# Attaching the Pilot Source to a Valve:

- 1. Attach connector to the pilot port.
- 2. Connect pilot source to connector.

# Installing a Valve onto a Manifold:

## Note:

- Manifolds can fit 2, 4, 6, 8 and 16 valves.
- Secure screws until the component will not move freely, and tighten another quarter turn.

### **Procedure:**

- 1. Place a rubber seal over the manifold openings.
- 2. Line up the valve with port "A" and corresponding pilot holes for the screws.
- 3. Secure the valve into place.
- 4. Cover the remaining holes with the provided gaskets.

### Installation:

- 1. Connect the source to the port labeled "P".
- 2. Connect the outlet to the port labeled "A".
- 3. Connect the exhaust to the port labeled "EA".

# **Operational Notes**

- A continuous air supply is not required to maintain the solenoid position.
- To move the piston to a new position, activate the appropriate pilot source. Do not activate both pilots at the same time.

# Maintenance and Troubleshooting

### **Procedure:**

- 1. Remove any pilot connections attached to the valve.
- 2. Unscrew the pilot block and remove the piston and spring.
- 3. Check for any debris that may have collected on the piston and in the hole in the center of the valve.
- 4. Insert the piston and spring back into the valve body.
- 5. Screw the pilot block back into the valve.

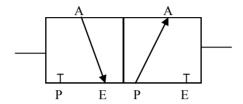
# **Reference Figures**



Figure 1: Model 3A220 with port labels and a pilot port shown.

# STC Installation and Operation Procedure 3A120-420 & 4A120-420 Air Pilot Valves

# 3A120-420 (3 way valve)



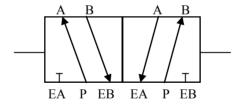
**VALVE POSITION 1** 

2

# **Operations:**

- 1. When Valve is in Position 1, Port A is connected to Port E. Port P is closed
- 2. When Valve is in Position 2, Port P is connected to Port A. Port E is closed.

# 4A120-420 (4 way valve)



VALVE POSITION 1 2

# **Operations:**

- 1. When Valve is in Position 1, Port P is connected to Port A. Port B is connected to Port EB.
- 2. When Valve is in Position 2, Port P is connected to Port B. Port A is connected to Port EA.



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Credit Application: To establish a net 30 day account, please mail or fax three trade references with complete mailing addresses and account numbers.

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