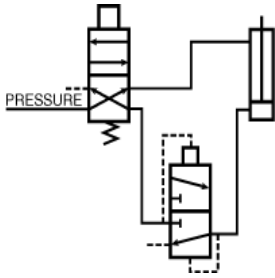




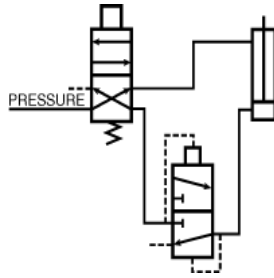
## Quick Exhaust & Shuttle Valve

### Typical "Quick Exhaust Valve" Applications



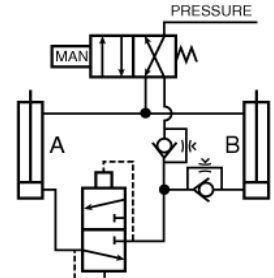
#### Rapid Retraction--- Double Acting Cylinder

In this circuit air is exhausted through a Quick Exhaust Valve that is **close coupled** to the cap end of the cylinder because the Quick Exhaust Valve has a greater exhaust capacity than the four-way Control Valve. Increased cylinder speed can be accomplished with a smaller and less expensive control valve.



#### Dual Pressure Actuation of Double Acting Cylinder

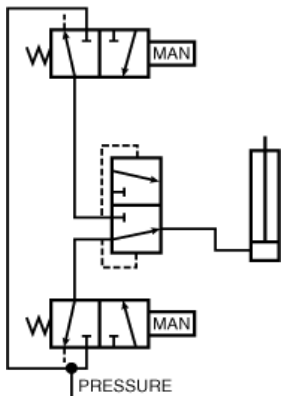
This circuit utilizes a Quick Exhaust Valve and a three-way Control Valve to permit rapid extension of the cylinder at a high pressure. Retraction can be accomplished at a lower pressure, thus **saving air** and **increasing cylinder life**. Note: Line pressure must be 3 or 4 times greater than rod end pressure. Effective working pressure is the differential between the cap and rod end.



#### Bi-Directional Control of Two Double Acting Cylinders

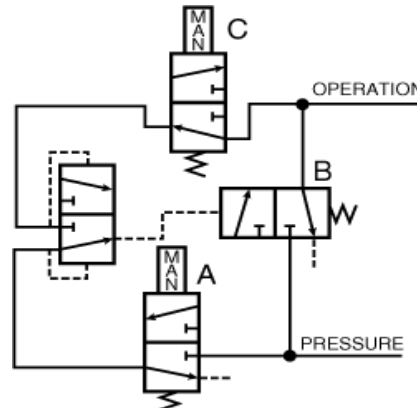
This circuit provides maximum control with a minimum of valving. A large four-way control valve is not needed to permit the rapid retraction of cylinder A, as the Quick Exhaust Valve performs this function. The extension of Cylinders A and B and retraction of Cylinder B are controlled by Speed Control Valves.

### Typical "Shuttle Valve" Applications



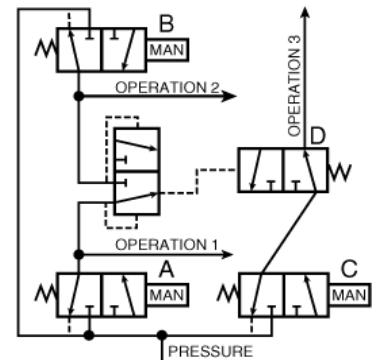
#### "OR" Circuit

The most common application of the Shuttle Valve is the "OR" Circuit. Here a cylinder or other work device can be actuated by either control valve. The valves can be manually or electrically actuated and located in any position.



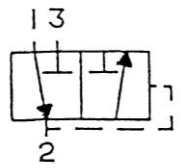
#### "Memory" Circuit

This circuit enables continuous operation once initiated. Pressure is delivered to the circuit when Valve A is actuated. This allows pressure to pass through the Shuttle Valve actuating Valve B. Pressure then flows through Valve B and also the other side of the Shuttle Valve which holds Valve B open for continuous operation. To unlock the circuit, Valve C must be opened to exhaust the circuit and allow Valve B to return to its normally closed position.

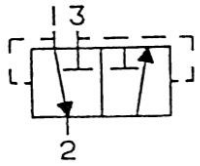


#### Interlock

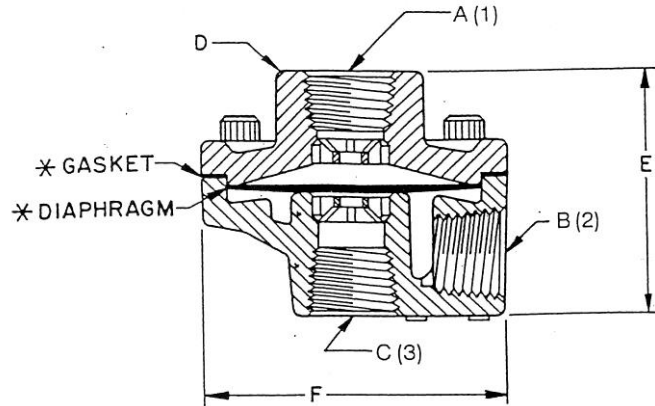
This circuit prevents the occurrence of a specific operation while one or another operation takes place. When either Valve A or B is actuated to perform operation 1 or 2, Valve D is shifted to the closed position and prevents operation 3 from occurring.



QUICK EXHAUST



SHUTTLE VALVE



\*Included In Service Kit.

PIPE PORT SIZE			Flow Capacity SCFM	Dimensions			Service Kits		
A (1)	B (2)	C (3)		D	E	F	Urethane	Viton	Teflon
1/8	1/8	1/8	70	7/8 Sq.	1 3/4	1 7/8	3640-8000	3650-8000	-
1/8	1/8	1/4	70	7/8 Sq.	1 3/4	1 7/8	3640-8000	3650-8000	-
1/4	1/4	1/4	90	7/8 Sq.	1 3/4	1 7/8	3640-8000	3650-8000	-
1/4	1/4	3/8	150	1 Hex	2 1/16	2 7/16	3340-0105	3340-0319	3340-0504
1/4	3/8	3/8	240	1 Hex	2 1/16	2 7/16	3340-0105	3340-0319	3340-0504
3/8	3/8	3/8	240	1 Hex	2 1/16	2 7/16	3340-0105	3340-0319	3340-0504
1/2	1/2	1/2	450	1 1/2	2 7/8	3 3/8	3475-0109	3475-0120	-
3/4	3/4	3/4	550	1 1/2	2 7/8	3 3/8	3475-0109	3475-0120	-

**Operating Temperatures:**

Urethane diaphragm units: -40°F to +180°F

Viton diaphragm units: -40°F to +400°F

Teflon diaphragm units: -110°F to +500°F

**Operating Pressures:**

Maximum: 150 psig air only

(200 psig for Teflon diaphragm units)

Minimum: 3 psig

(Suggested: 50 psig for Teflon diaphragm units)

**CAUTION:**

If it is possible that the ambient temperature may fall below freezing, the medium must be moisture free to prevent internal damage or unpredictable behavior.

**WHEN SERVICING UNIT, TURN OFF AIR PRESSURE AND DEPRESSURIZE SYSTEM.**