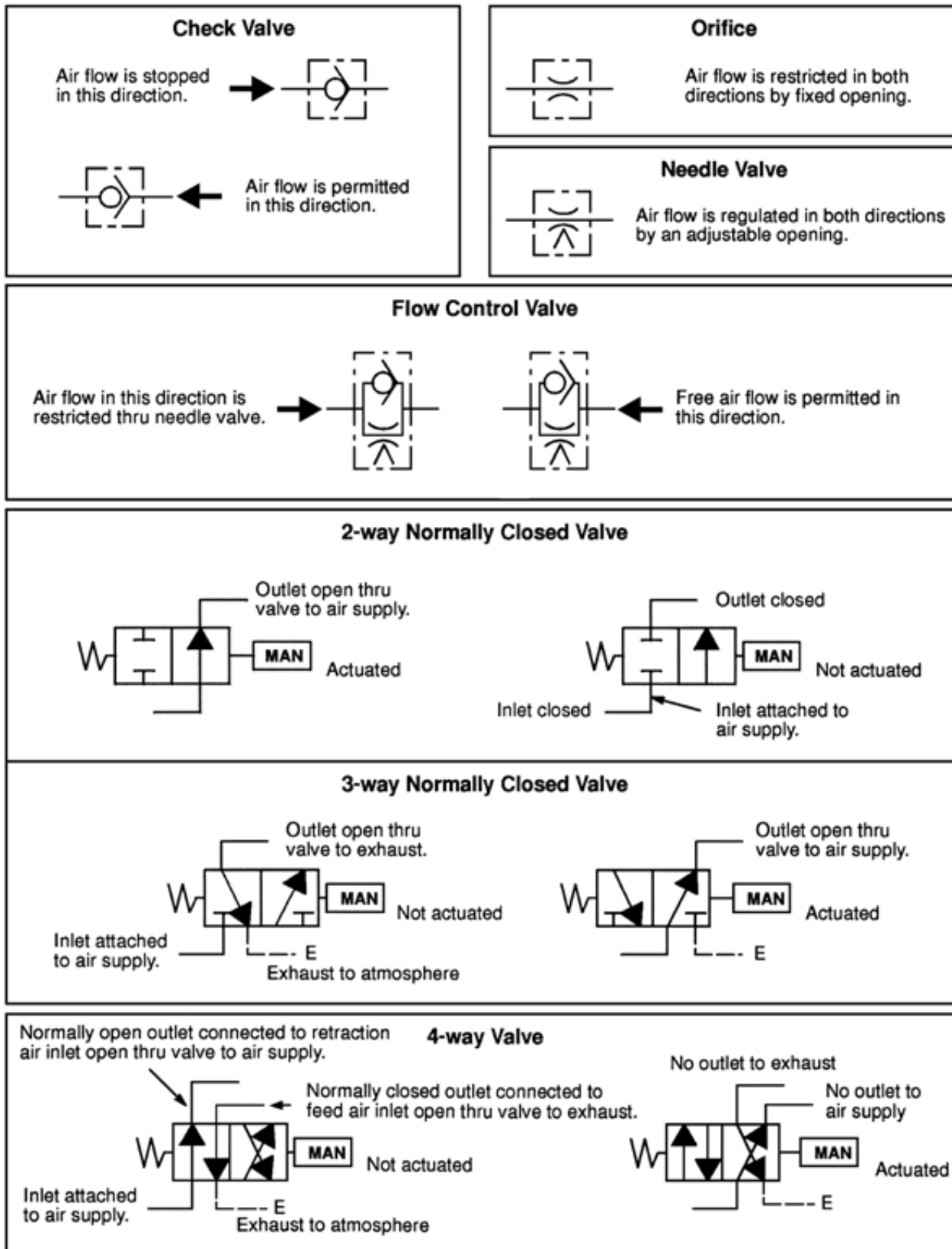


# Self-Feed Air Tool Circuitry

## Valve Schematic Descriptions

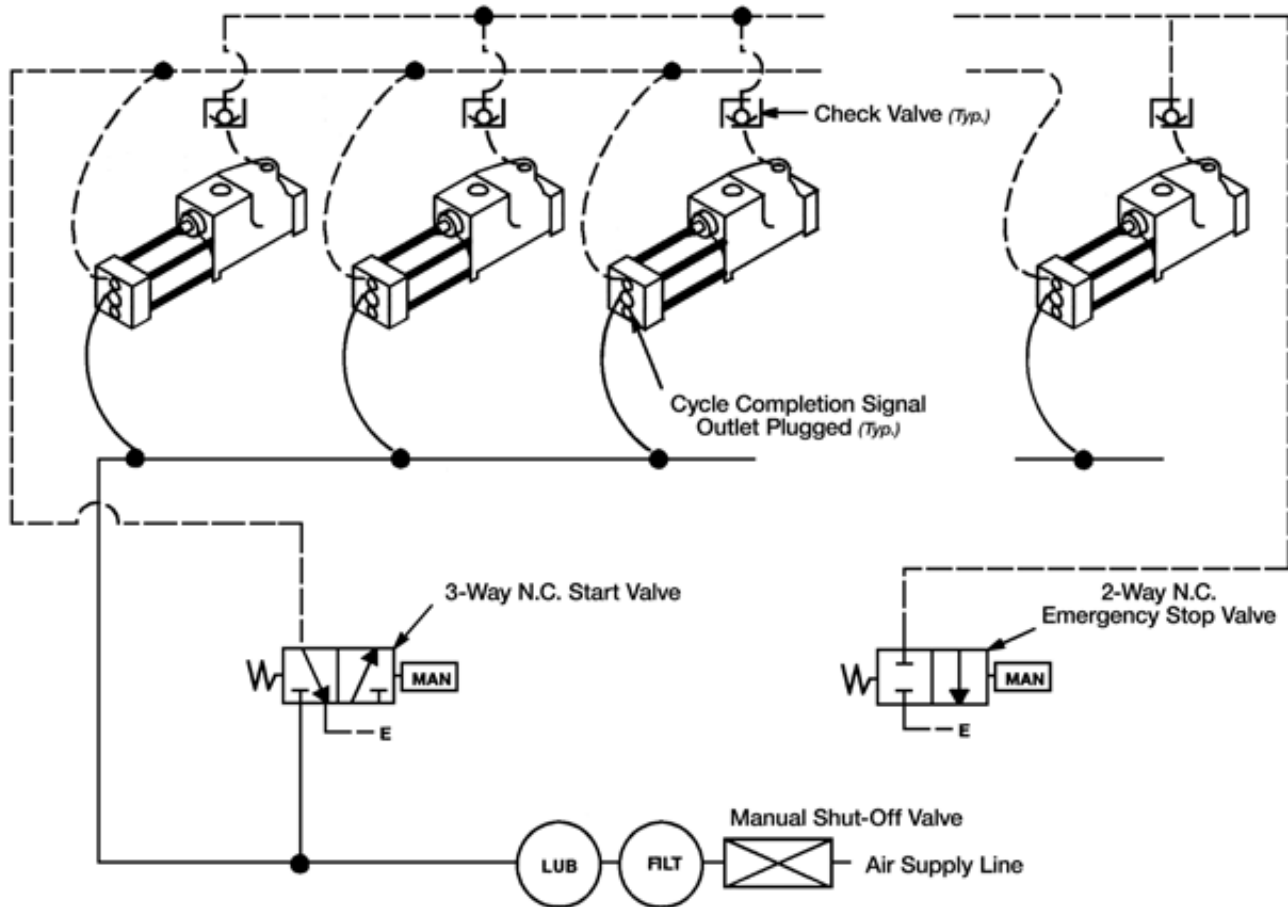


## Multiple 800 Series Tools with Emergency Retract

### Sequence of Operations

To start cycle: Momentarily depress start valve (green button) thus pressurizing the start signal inlet and pilot chamber in each tool. Tools retract automatically individually as front pilot valve is engaged.

To stop cycle: Remotely depress stop valve (red button) exhausting start signal circuit of each tool and retracting tools to normal start position.



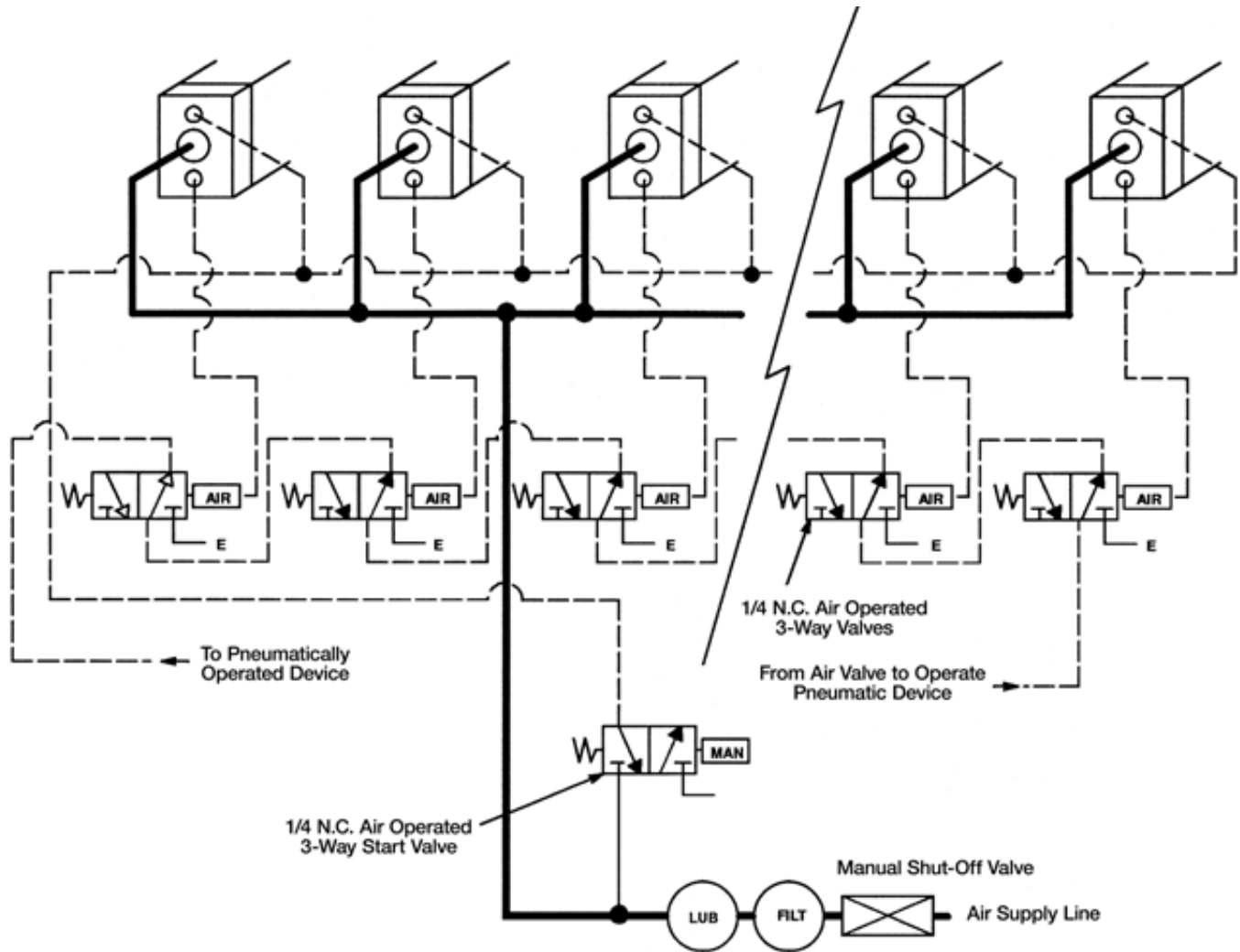
Required	Identification	Description
1	Check Valve	1/4" (6.4mm) check valve male pipe threads at both ends.
1	3-way N.C. start valve	1/4" (6.4mm) 3-way normally closed manually actuated valve (green palm button)
1	2-way N.C. emergency stop valve	1/4" (6.4mm) 2-way normally closed manually actuated valve (red palm button)

# Self-Feed Air Tool Circuitry

## Multiple 800 Series Tools with Cycle Completion Circuit

### Sequence of Operations

Momentarily depressing manual 3-way valve pressurizes the start signal inlets of the 800 series tools, thus starting the tools and exhausting the cycle completion signal outlets.



Required	Description
1	1/4" (6.4mm) 3-way normally closed palm button operated valve
One for each tool	1/4" (6.4mm) 3-way normally closed air operated valve

## Multiple 800 Series Tools with Clamping Cylinder

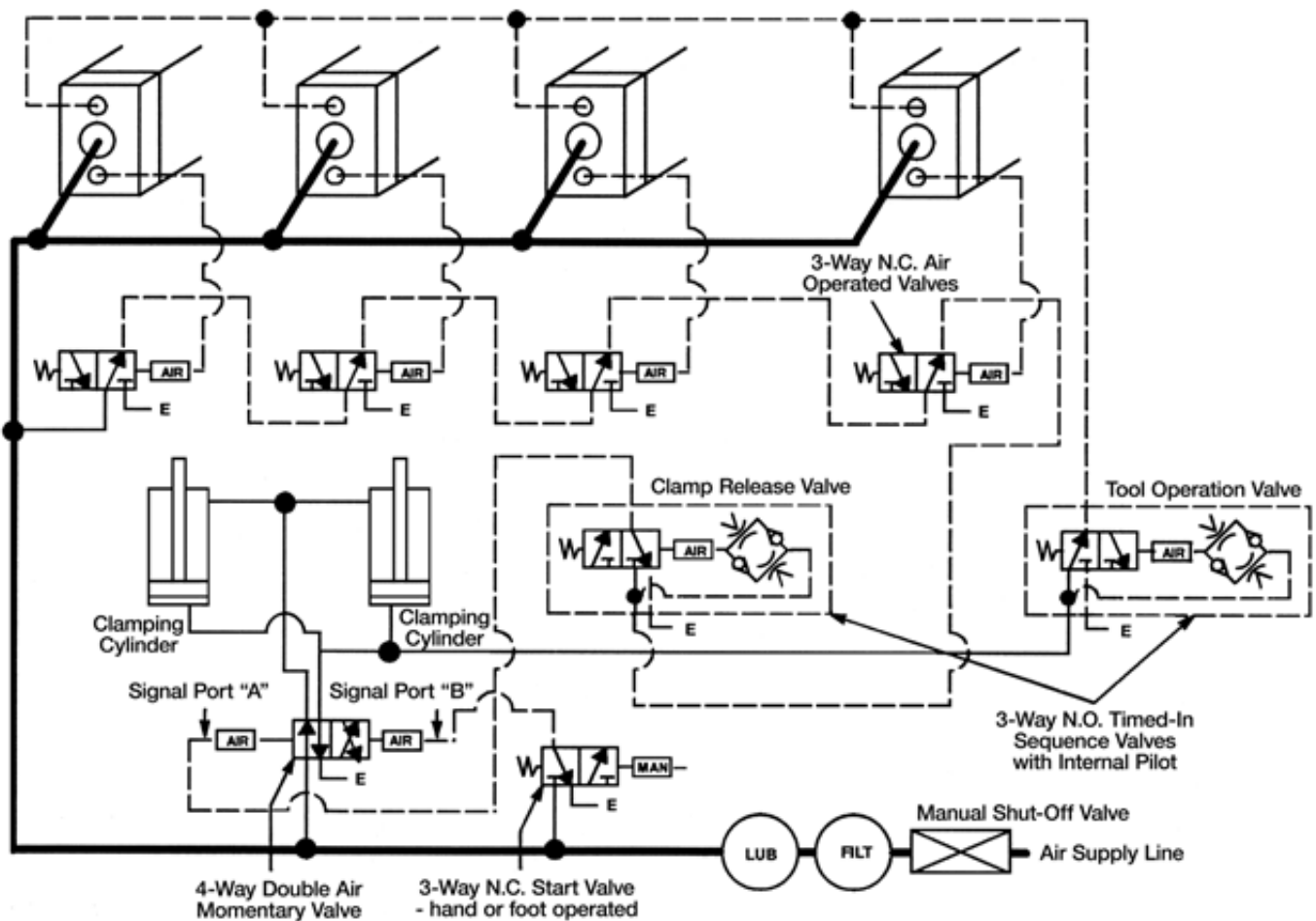
### Sequence of Operations

Momentary depression of start valve pressurizes the "B" signal port of the 4-way valve, thus shifting it to operate the clamping cylinders. An air line leading from the clamp side of these cylinders sends pressurized air to the inlet port of the tool operation sequence valve.

This normally open 3-way valve has the timed operator set for a time delay on operation, thus when pressure is applied to the inlet port, the valve remains open. At the same time air is metered through the sequence head. After the preset delay, inlet closes and outlet opens to exhaust. This action sends a momentary pressure to the start signal inlet of the self-feeding tools, thus starting their cycle of operation.

When the tools return to their fully retracted position, a continuous pressure is sent from the cycle completion assembly to the operators of their respective 3-way air operated valves. As the last tool is completely retracted, the pressurized air series circuit is again open pressurizing the inlet of the clamp release valve.

This too is a normally open 3-way sequence valve that sends a momentary signal thru it when its inlet is pressurized. The outlet of the clamp release valve is connected to signal port "A" of the 4-way valve. When this outlet is momentarily pressurized it returns the 4-way valve to its normal position where air is exhausted from the clamp side of the clamping cylinders and air is sent into the release side. Thus releasing the clamp.



Required	Description
1 per tool	3-way N.C. air operated
2	3-way N.O. timed-in sequence
1	4-way double air momentary
1	3-way N.C. start

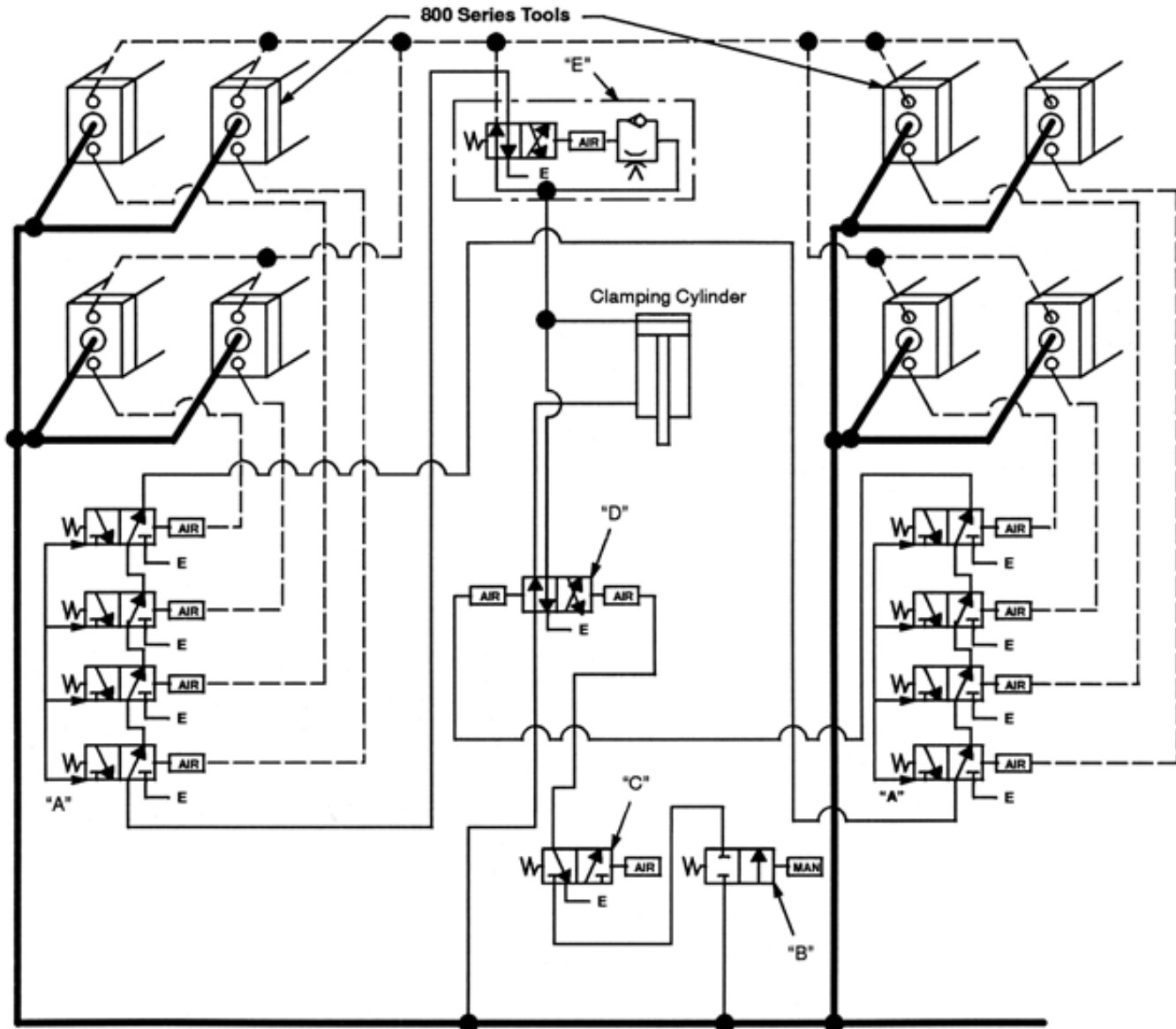
# Self-Feed Air Tool Circuitry

## Two Groups Of Four 800 Series Tools Arranged To Sequence In Conjunction With Clamping Cylinder

### Sequence of Operations

1. Push start button.
2. Clamp cylinder closes.
3. Tools feed and retract.
4. Clamp cylinder releases.

To stop cycle: Remotely depress stop valve (red button) exhausting start signal circuit of each tool and retracting tools to normal start position.



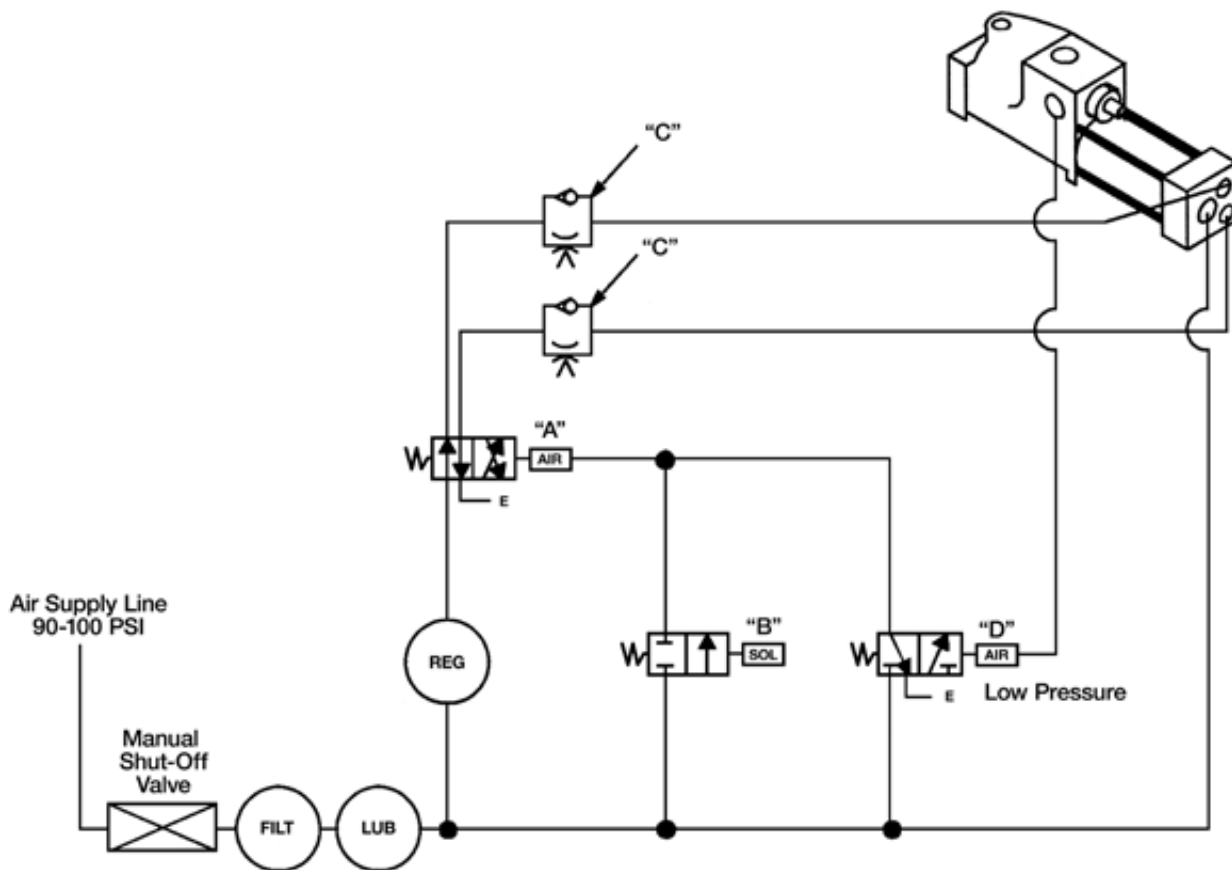
Symbol	Quantity	Description
A	8	1/8" (3.2mm) 3-Way N.C. air operated valve
B	1	1/4" (6.4mm) 2-Way N.C. palm button valve
C	1	1/4" (6.4mm) 3-Way N.C. palm button valve
D	1	1/4" (6.4mm) 4-Way double air momentary valve
E	1	1/4" (6.4mm) 4-Way air operated timed sequence valve (TDF)

## Self-Feeding Torque Control Shut Off Fastening Tools

### Sequence of Operation

Valve "B" is momentarily actuated either manually or automatically. It in turn pressurizes the pilot chamber of valve "A", sending line pressure to the back side of the feed cylinder. As the piston starts its forward stroke it opens the built-in motor air valve and starts the motor. The motor exhaust will signal valve "D" to open, holding valve "A" in its present position until the screw is torqued up, and the motor shuts off. Valve "D" then shifts back to exhaust and allows valve "A" to shift, which retracts the tool. The tool then resets itself for the next cycle.

Feed rate of the tool must be adjusted to coincide with the advance of the fastener being driven. Therefore, it is recommended that a hydraulic dashpot be employed for precise feed rate control.



Symbol	Quantity	Description
<b>Component List</b>		
A	1	1/4" (6.4mm) 4-Way air actuated valve
B	1	1/4" (6.4mm) 2-Way N.C./Base, Grommet
C	2	1/8" (3.2mm) Flow control valve
D	1	1/4" (6.4mm) 3-Way N.C. air operated valve ultra low pilot