



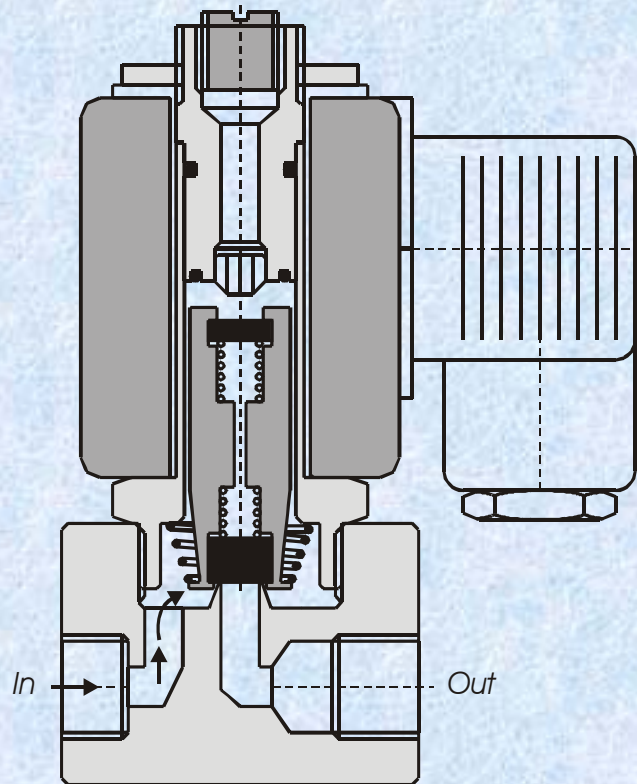
Schrader Bellows

Workshop on
Industrial Pneumatics

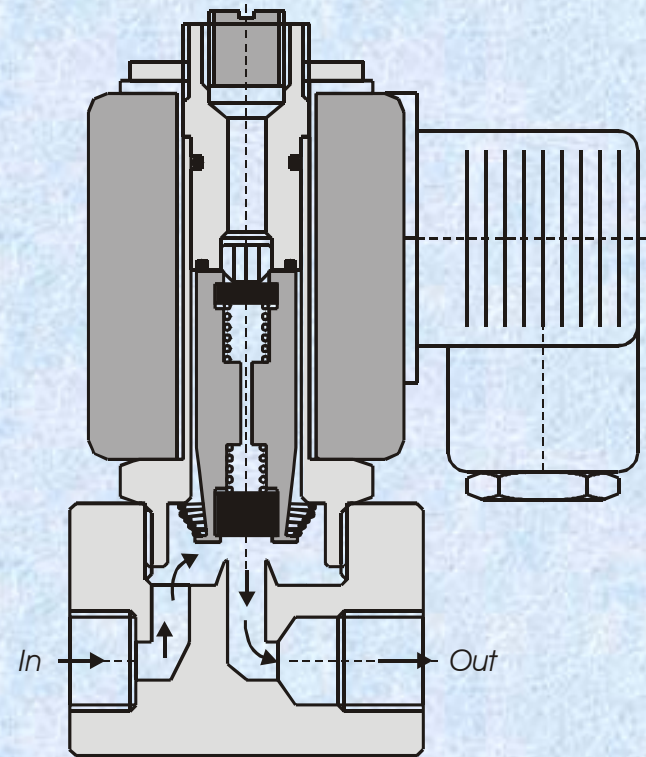
Pneumatic circuit elements

- 2 way & 3 valves
- Spool valves
- Poppet valves
- Non return valves
- Shuttle valves
- Quick exhaust valves
- Flow control valves
- Diaphragm operated 2/2 valves
- Pulse valves
- Slider valves
- 2/2, 3/2 Midget poppet valves
- Quick couplers

2 way valves



Normally closed 2 way valve

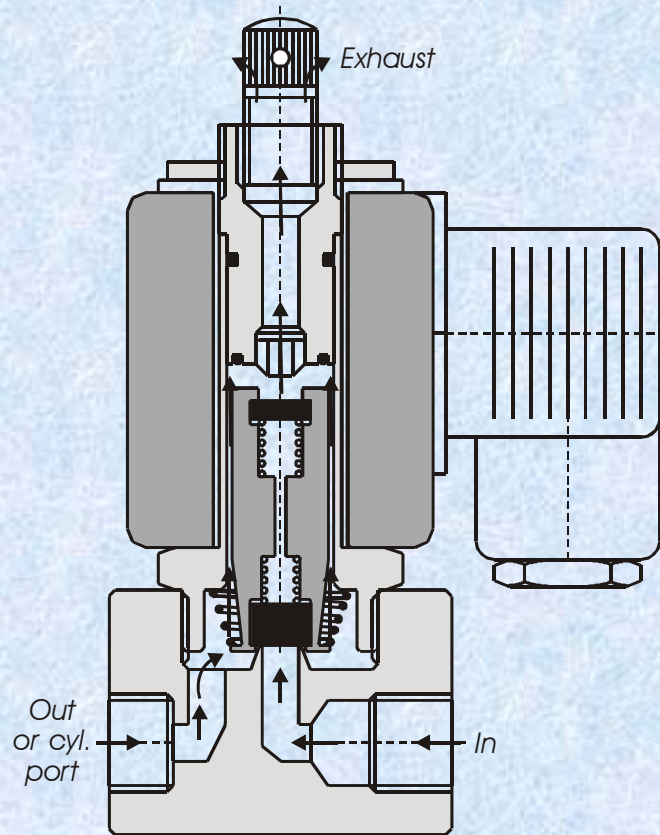


*Normally closed 2 way valve
Actuated*

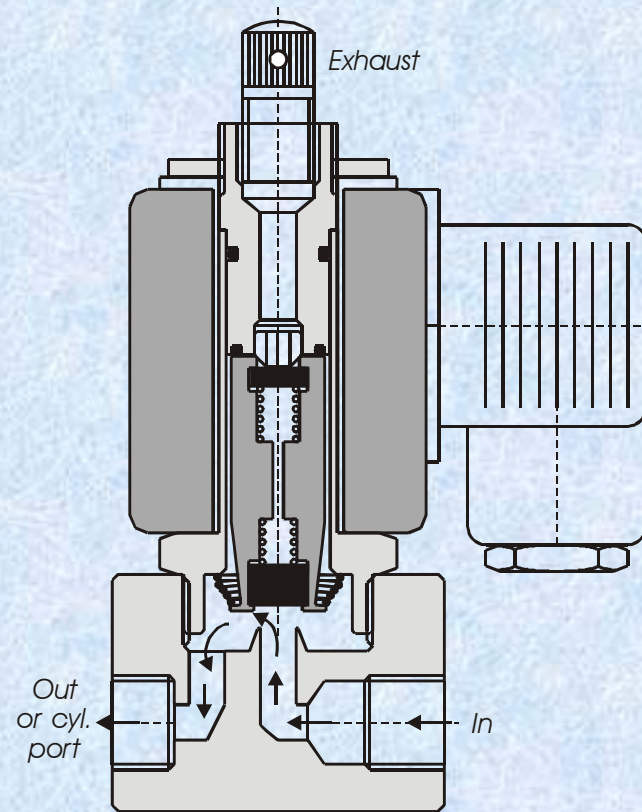


2 way, 2 port, 2 position

3 way valves



*Normally closed 3 way valve
Direct acting type*

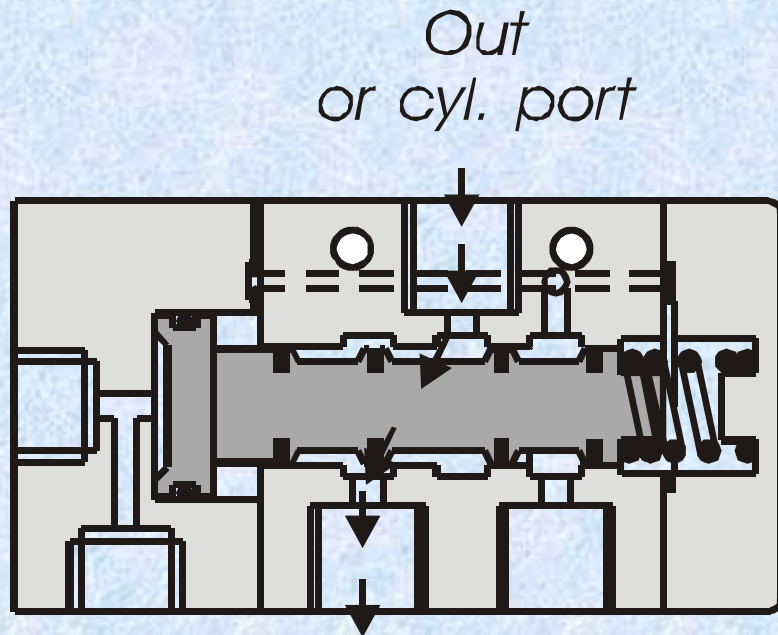


*Normally closed 3 way valve, Actuated
Direct acting type*

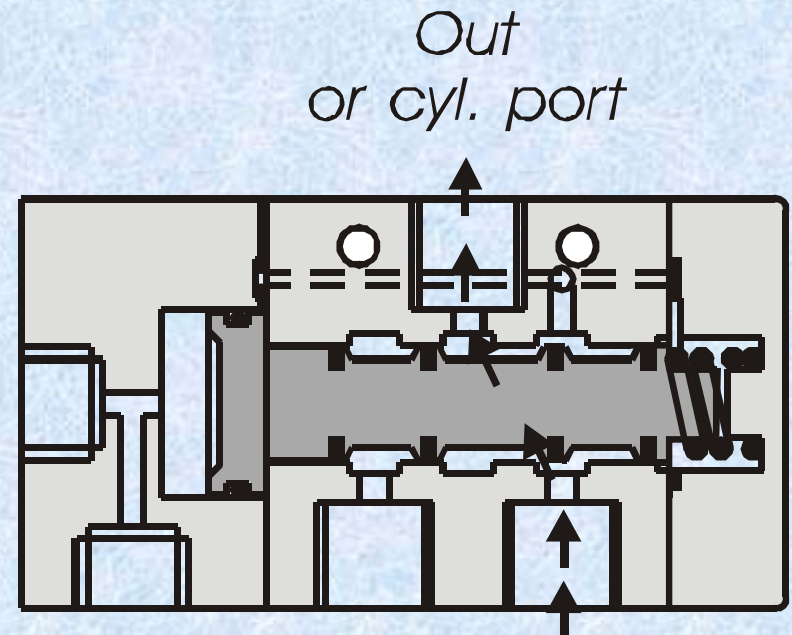


3 way, 3 port, 2 position

3 way valves



Exhaust In
Normally closed
3 Way Valve,
Spool type

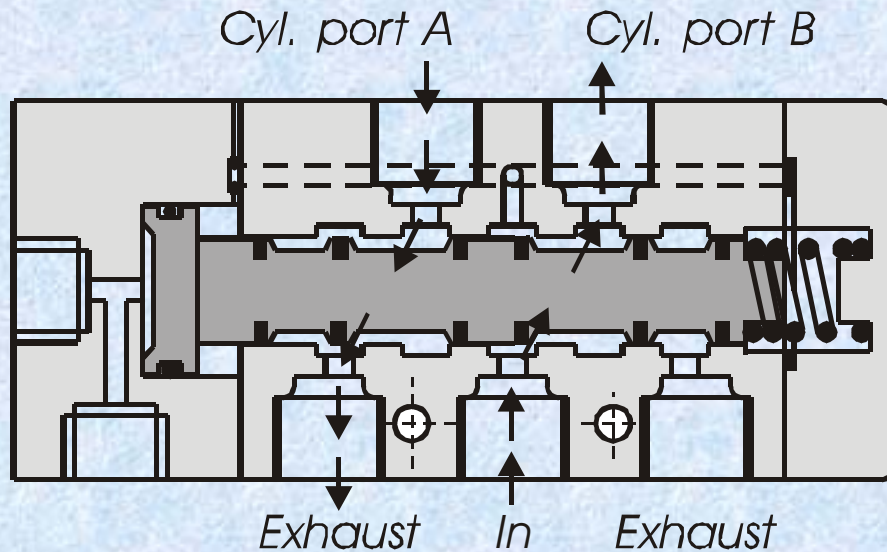


Exhaust In
Normally closed
3 Way Valve,
Actuated, Spool type

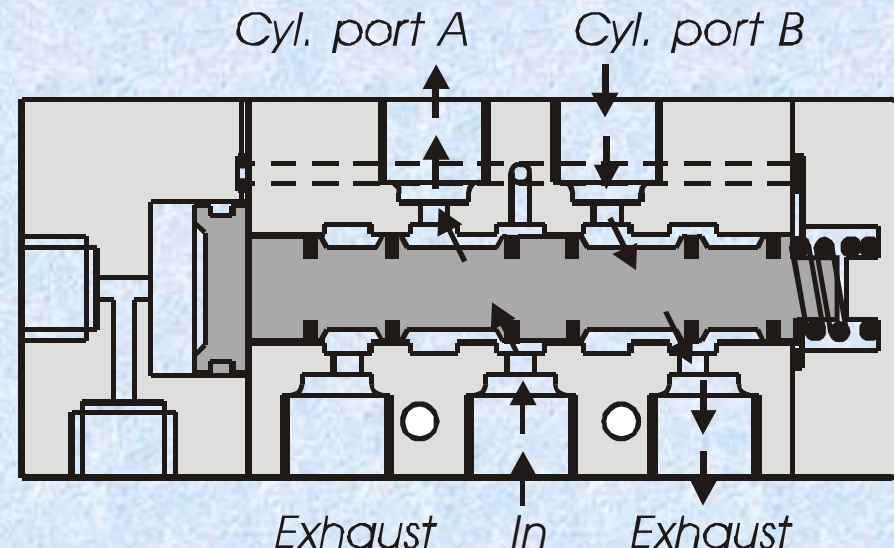


3 way, 3 port, 2 position

Spool valves



5/2 New gen. spool valve

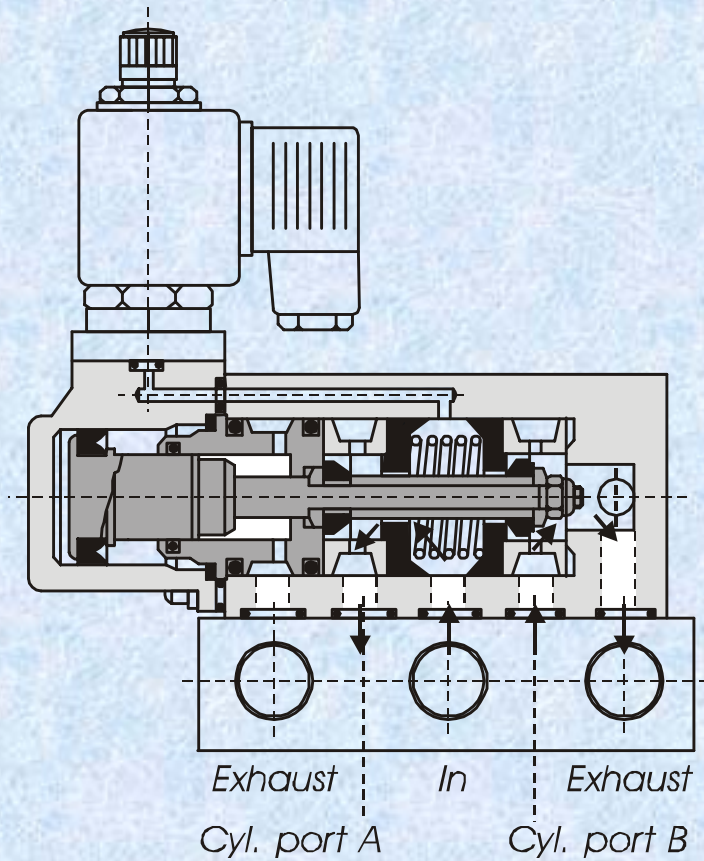


*5/2 New gen. spool valve
Actuated*

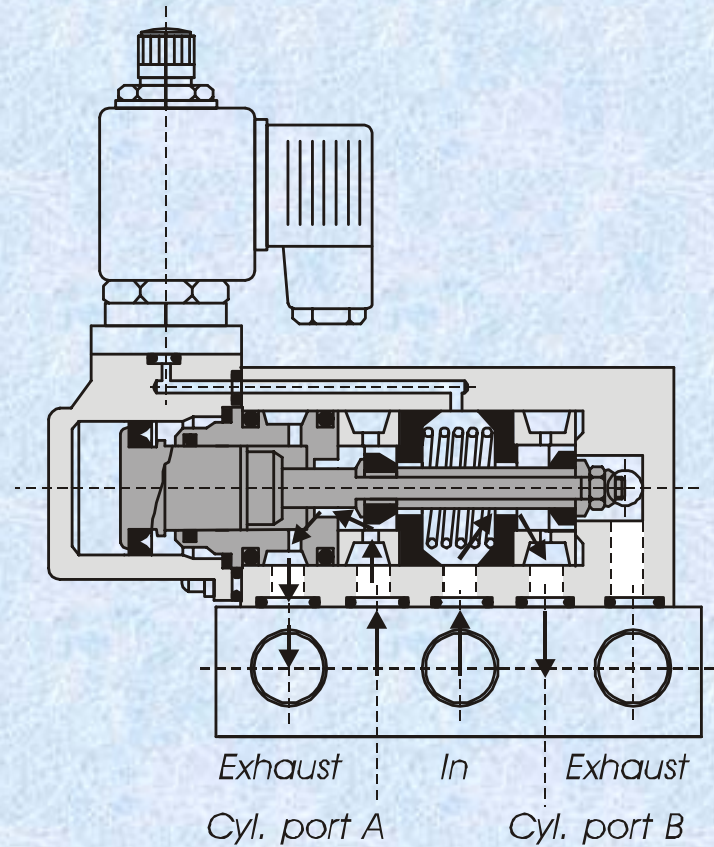


*4 way, 5 port, 2 position
solenoid operated with
manual over ride*

Poppet valves

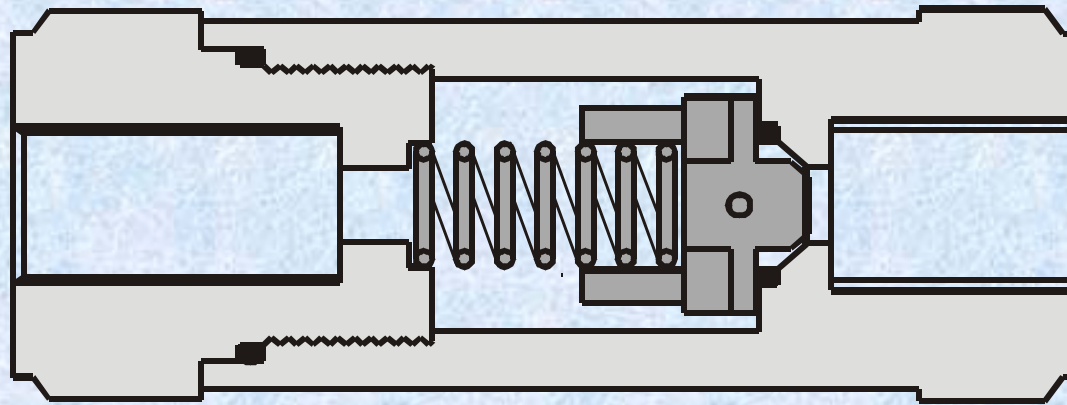


5/2 Single solenoid poppet valve

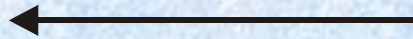


*5/2 Single solenoid poppet valve
Actuated*

Non return valves



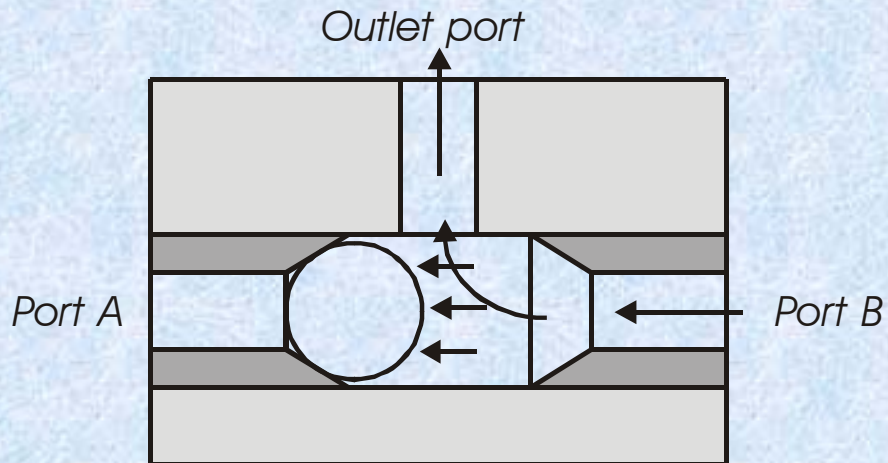
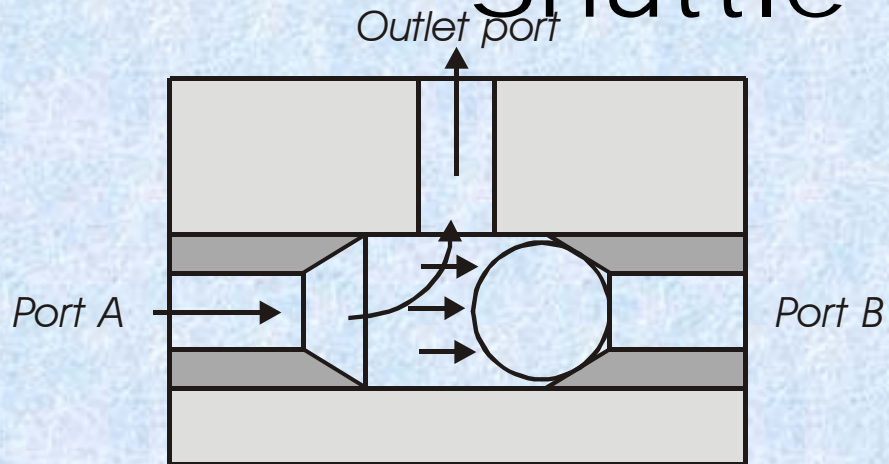
Free flow



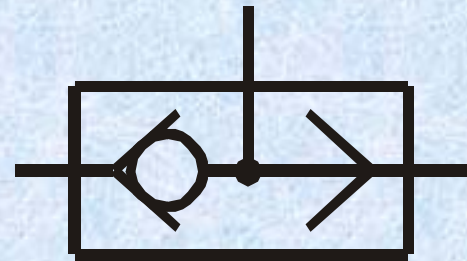
Check valve



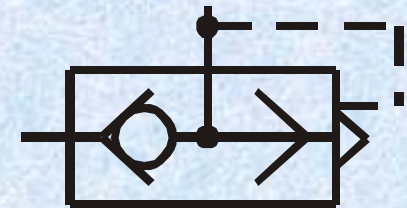
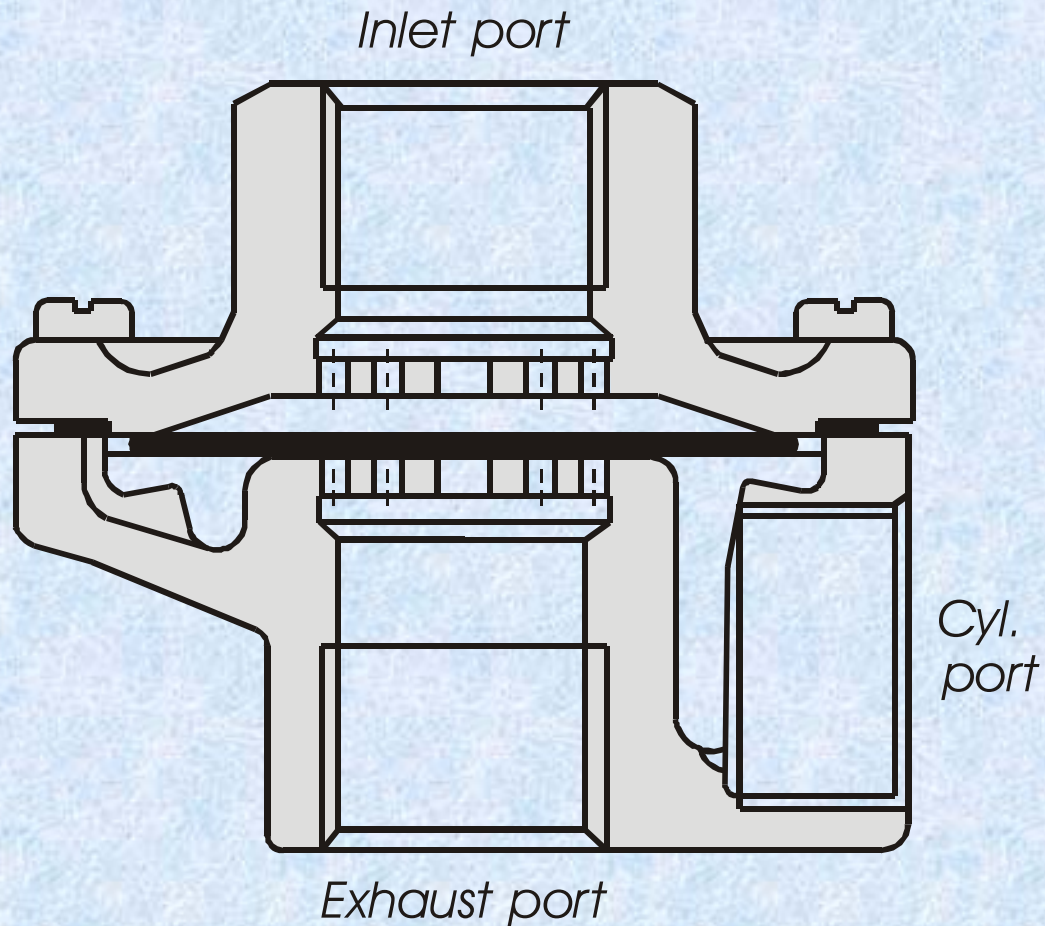
Shuttle valves



Shuttle valve

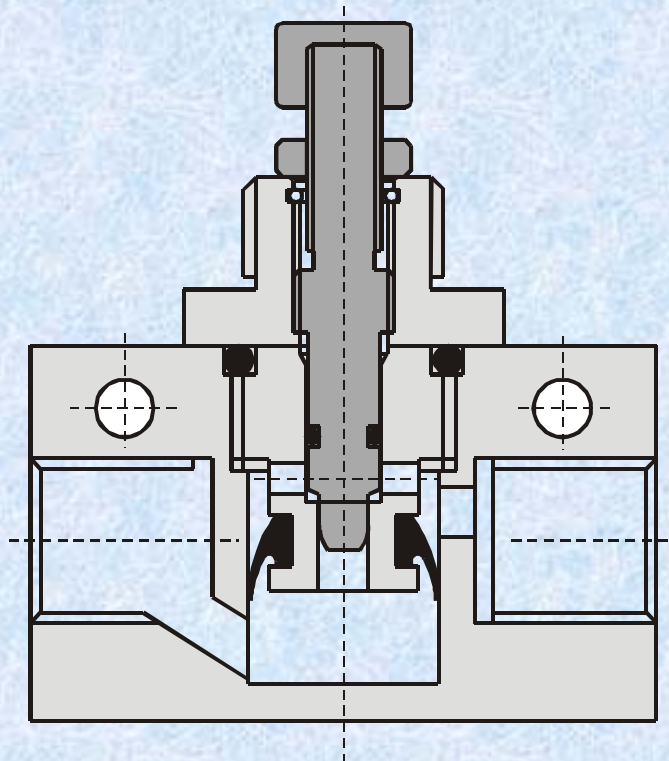


Quick exhaust valves

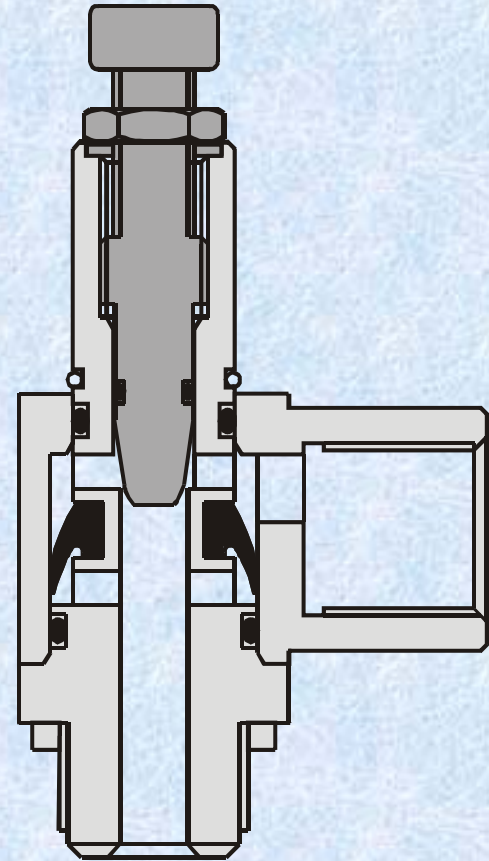


Quick exhaust valve

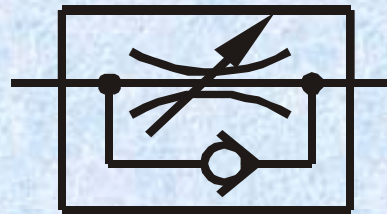
Flow control valves



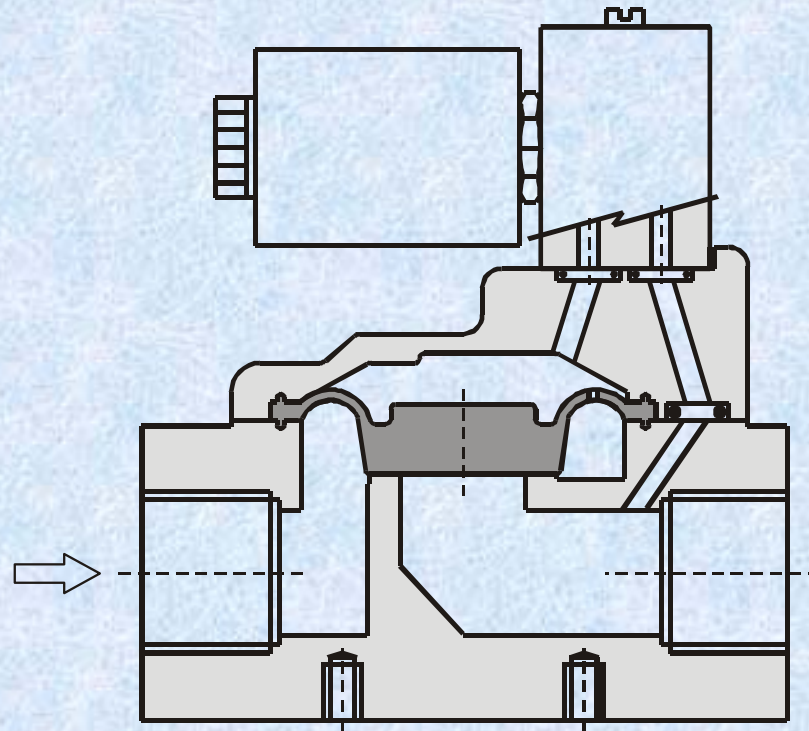
Inline flow control valve



Banjo flow control valve

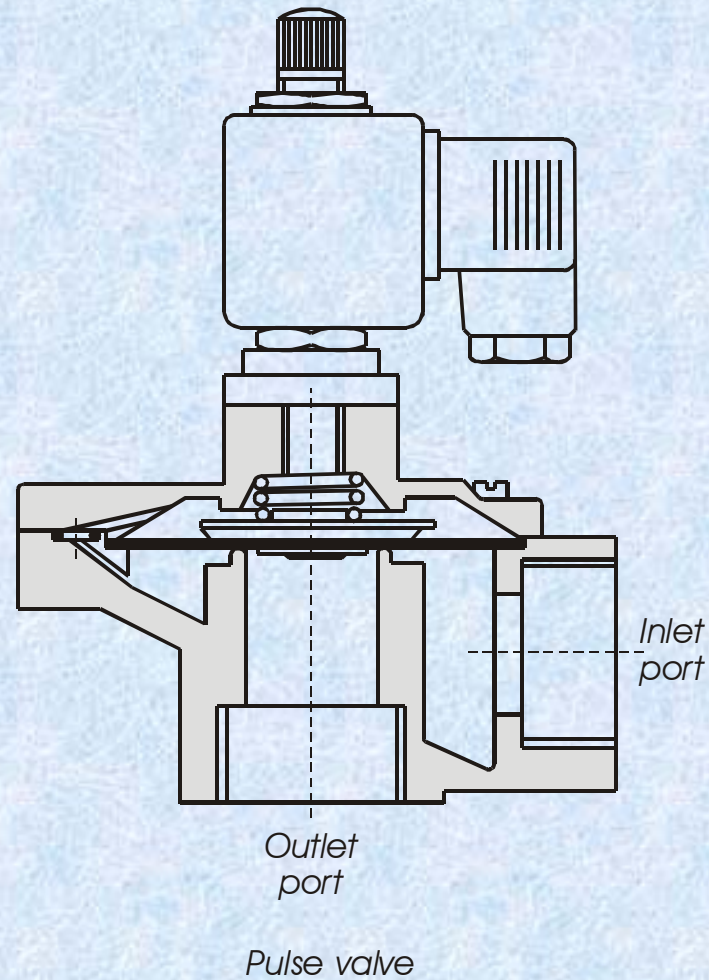


Diaphragm operated 2/2 valves

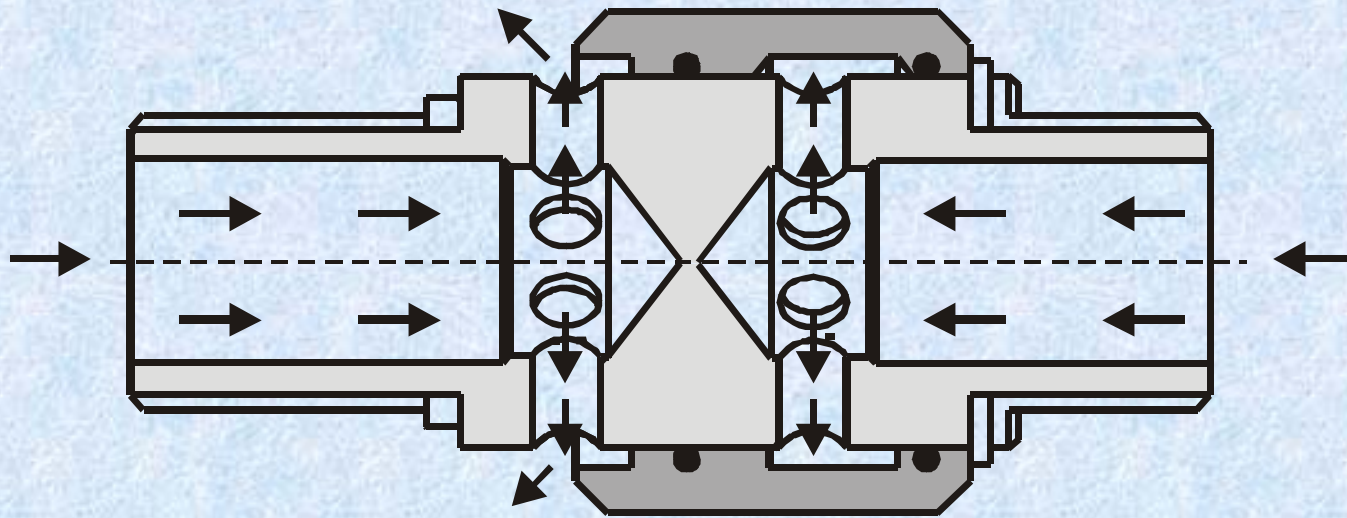


Diaphragm operated 2/2 valve

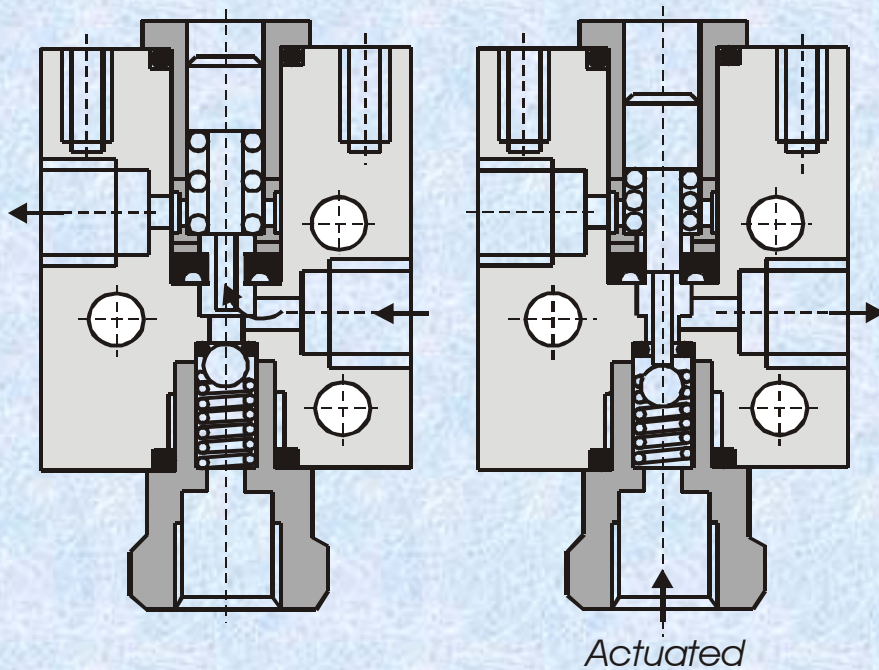
Pulse valves



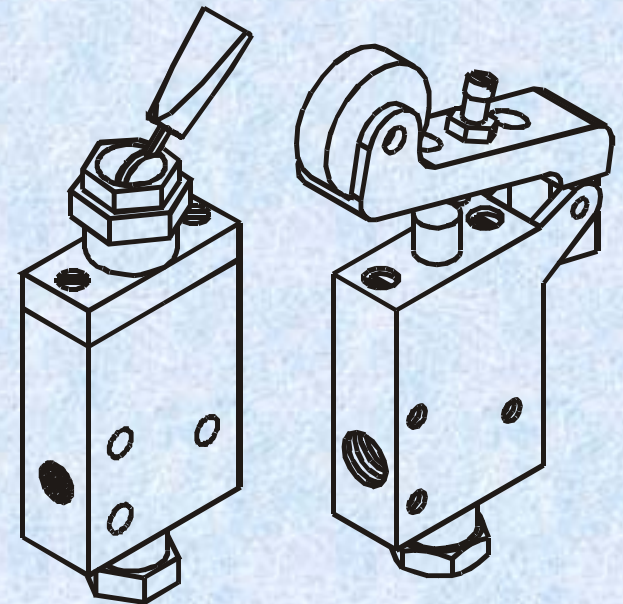
Slider valves



2/2,3/2 Midget poppet valves

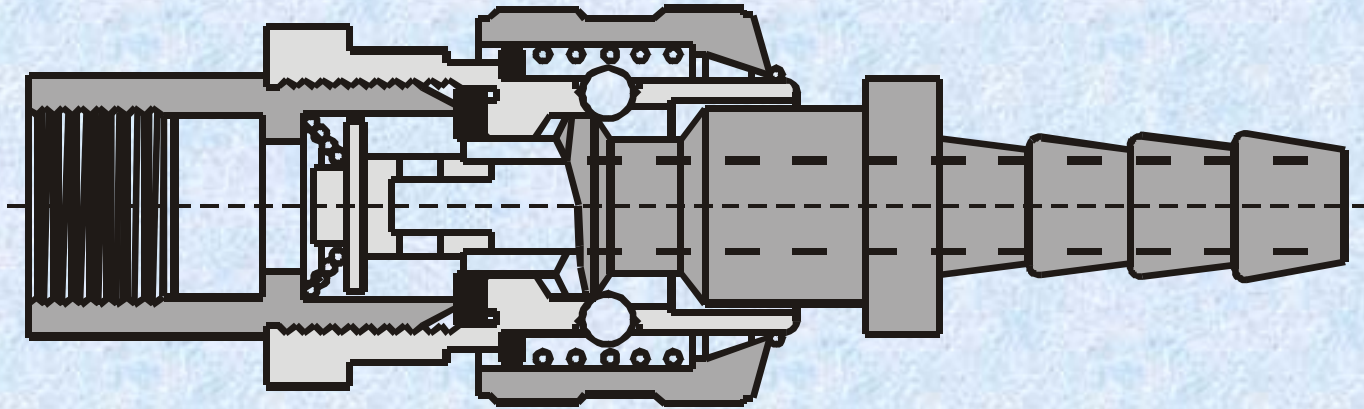


Midget poppet valve



Midget poppet valves

Quick couplers

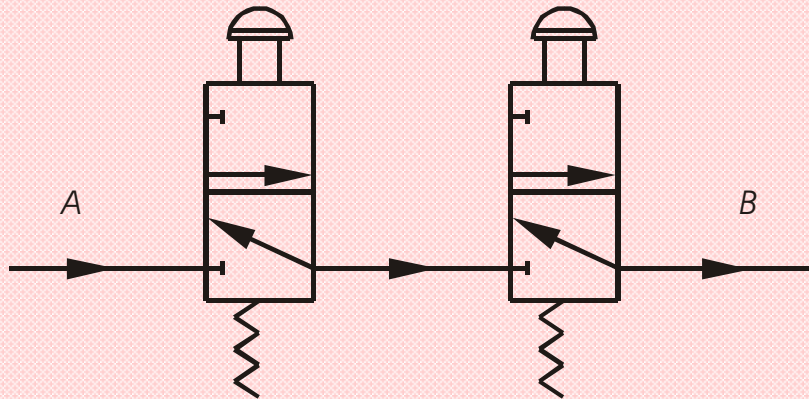


Quick coupler

Simple Pneumatic Circuits

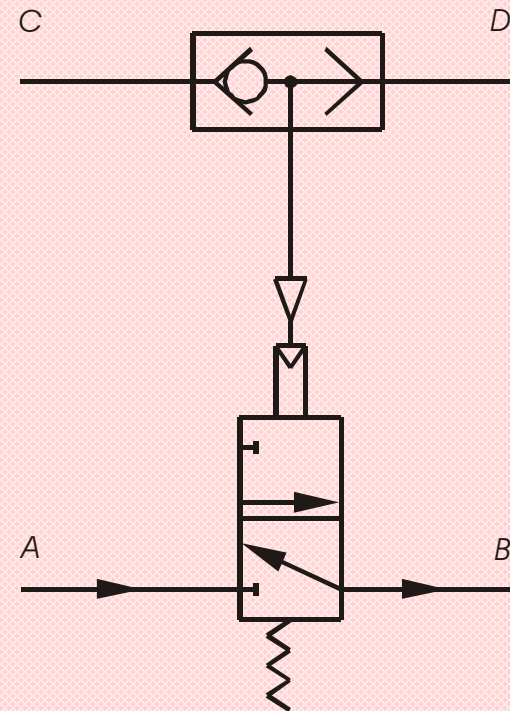
Logic functions

"AND" FUNCTION



*3/2 BUTTON OPERATED
SPRING RTN. VALVE*

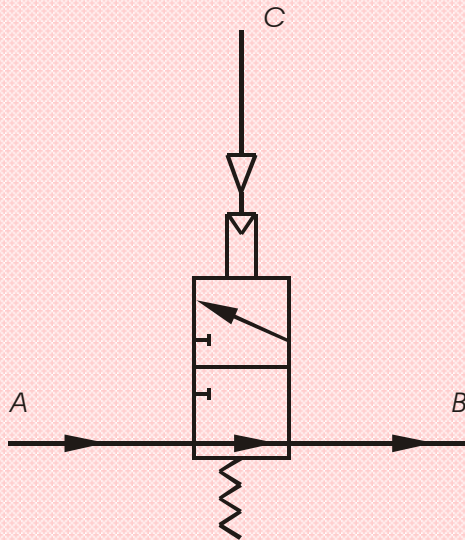
"OR" FUNCTION



*3/2 PILOT OPERATED
SPRING RTN. VALVE
(NORMALLY CLOSED)*

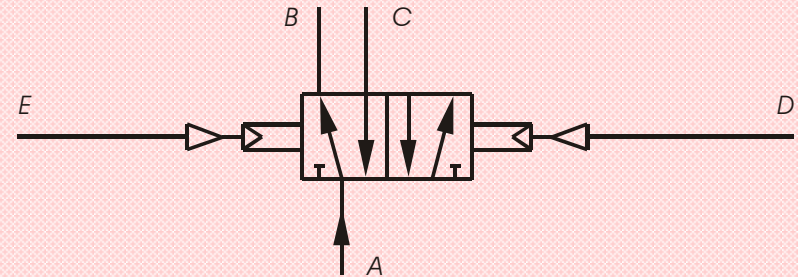
Logic functions

"NOT" FUNCTION



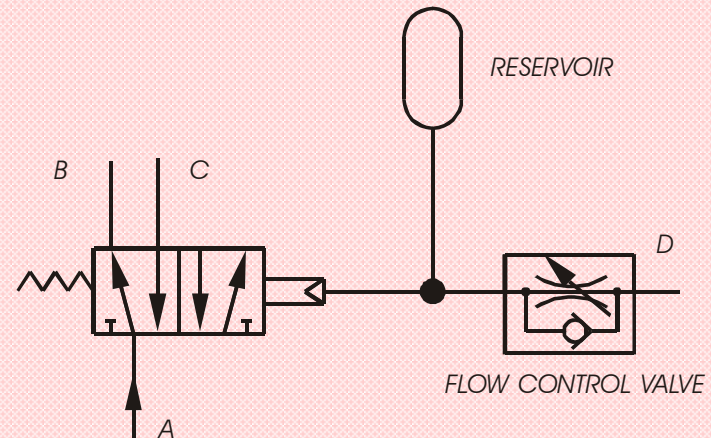
3/2 PILOT OPERATED
SPRING RTN. VALVE
(NORMALLY OPEN)

MEMORY FUNCTION (UNLIMITED)



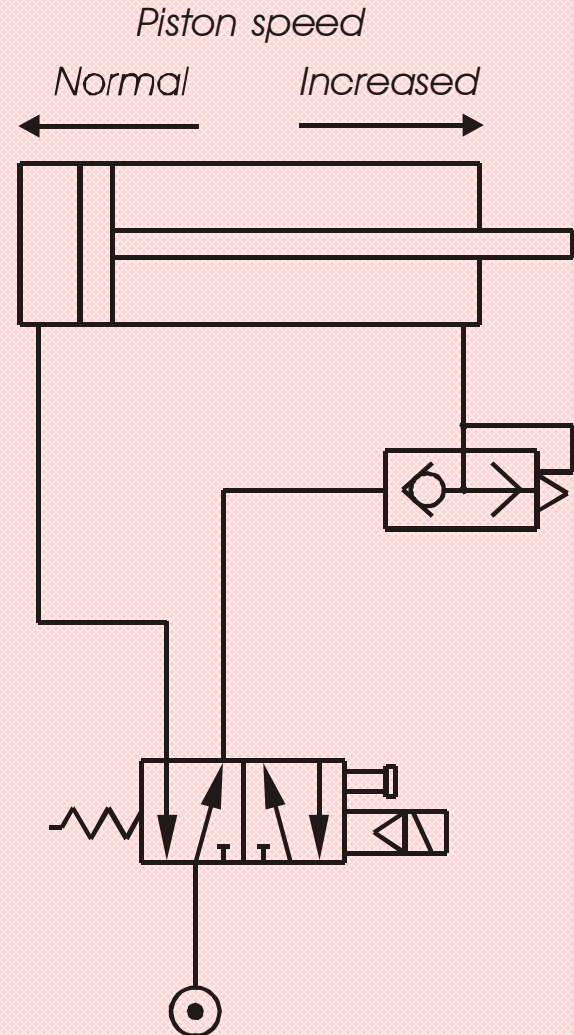
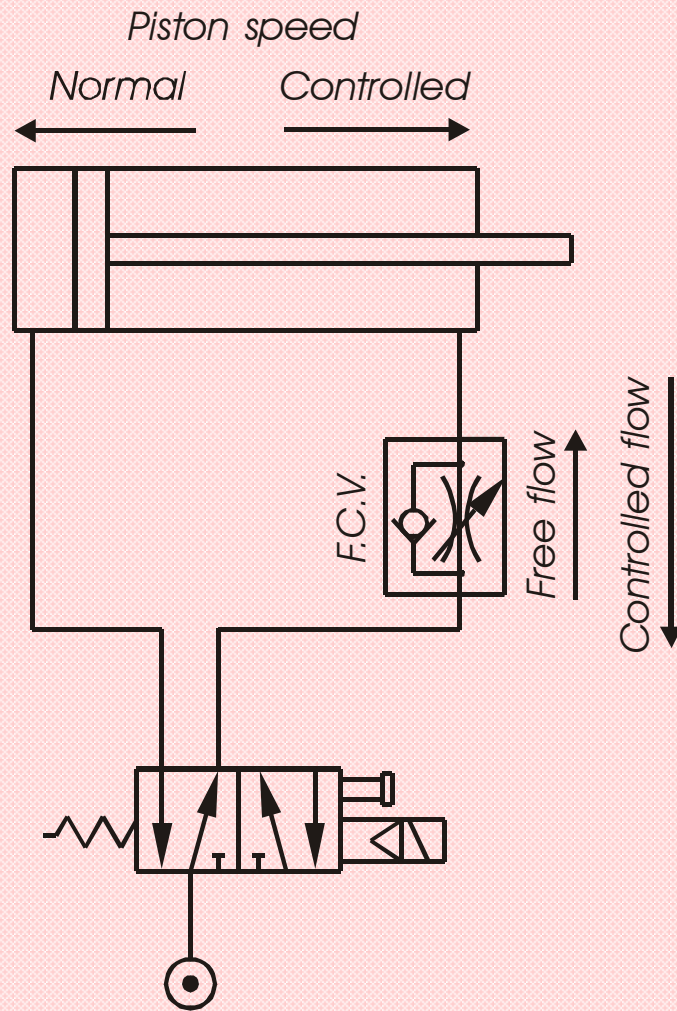
5/2 DOUBLE PILOT
OPERATED VALVE

MEMORY FUNCTION (LIMITED)

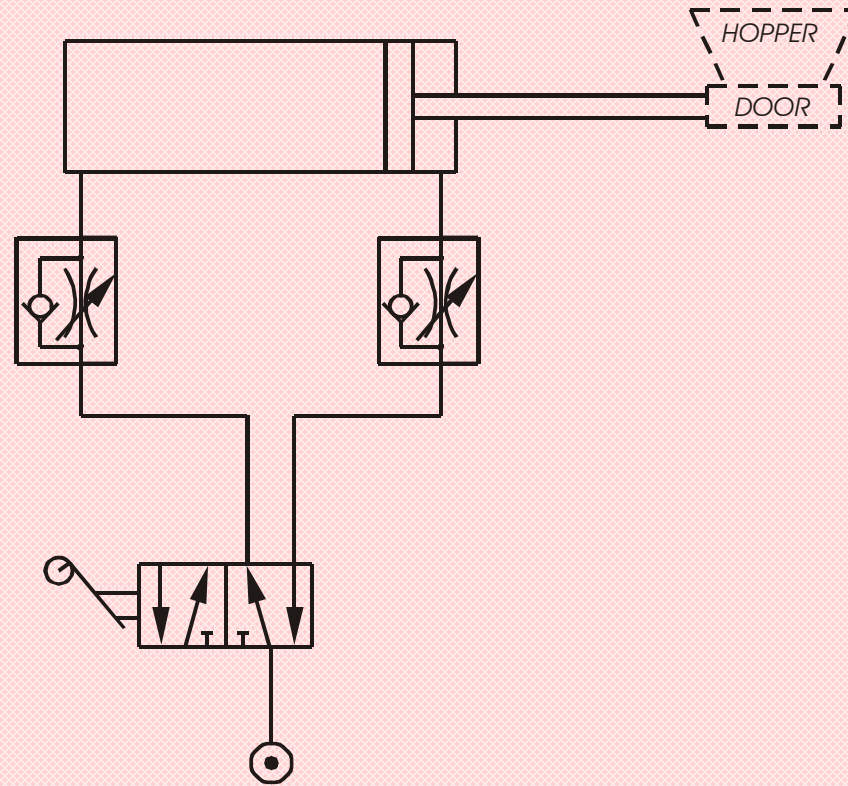


5/2 SINGLE PILOT
OPERATED VALVE

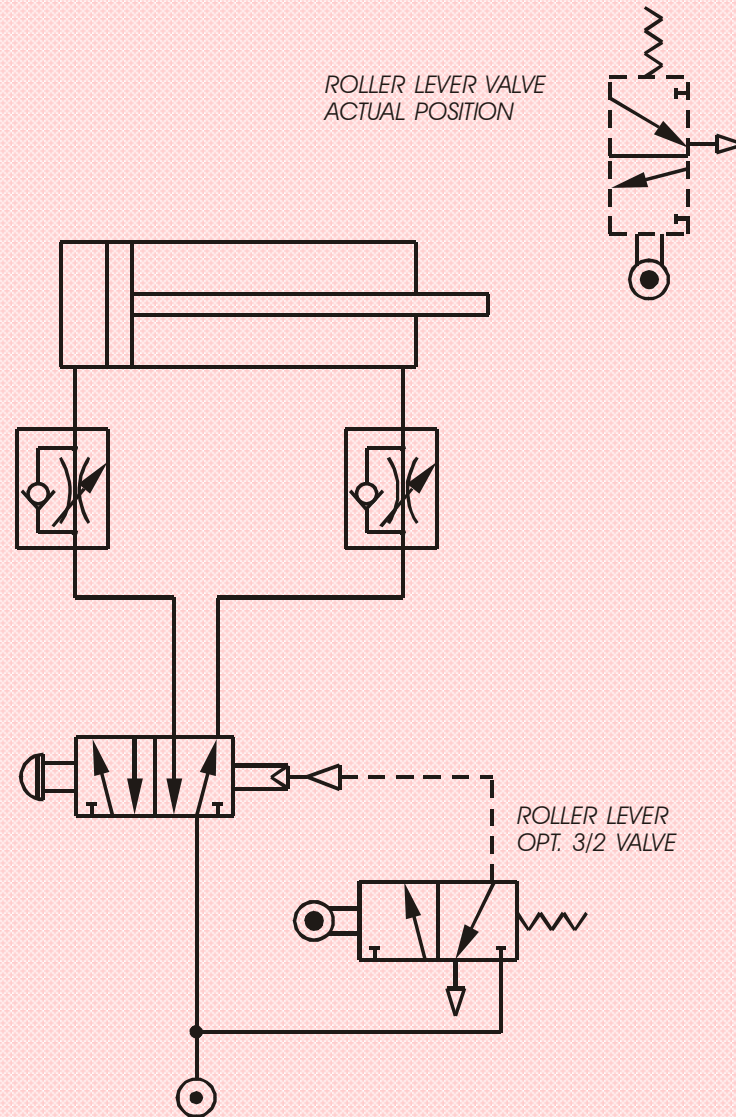
Increasing or decreasing cylinder piston speed



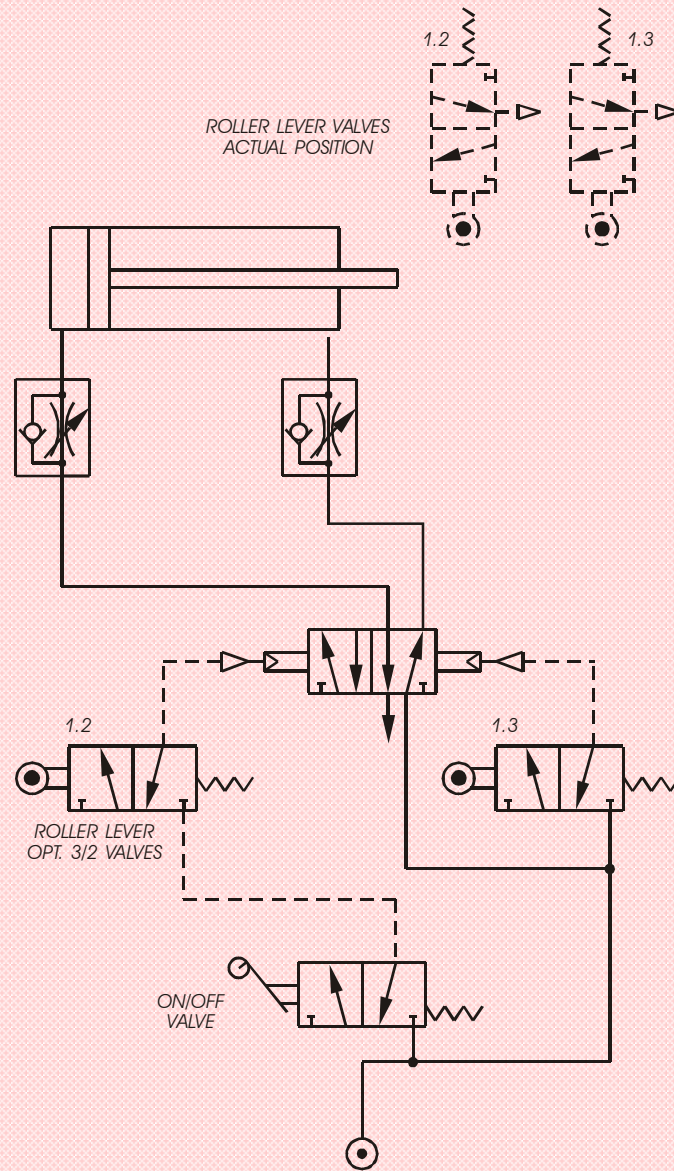
Actuating hopper door



Semiautomatic loading device

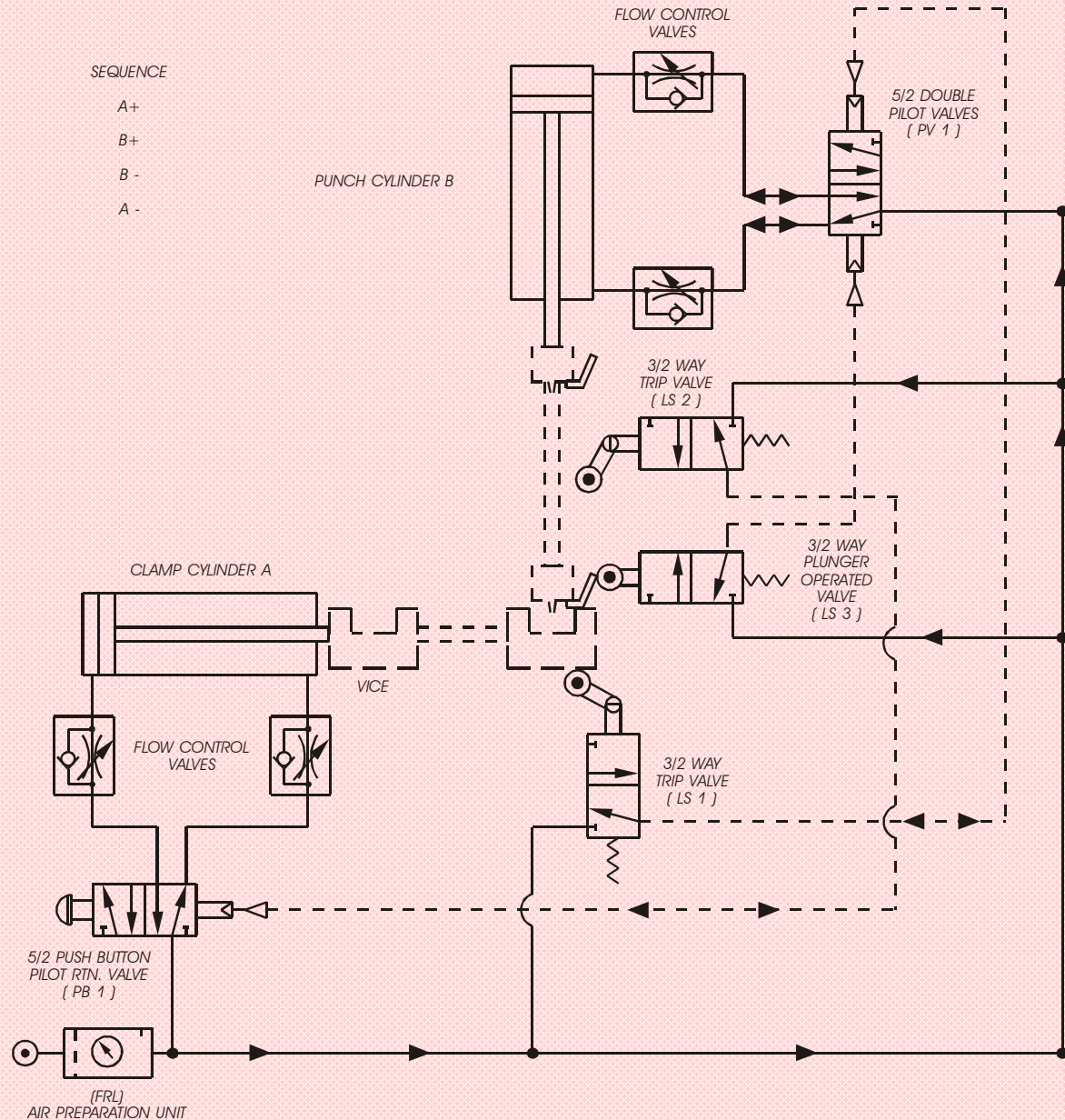


Automatic loading device



AUTOMATIC LOADING DEVICE

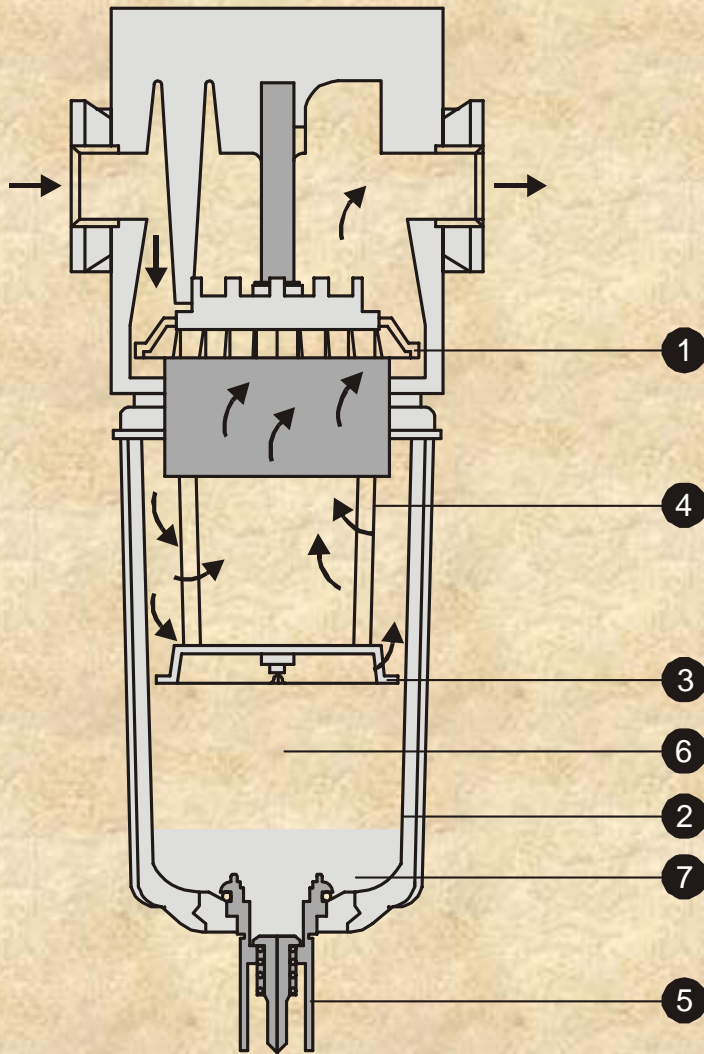
Clamp and punch circuit



CLAMP AND PUNCH CIRCUIT
(USING ONE WAY TRIP VALVES)

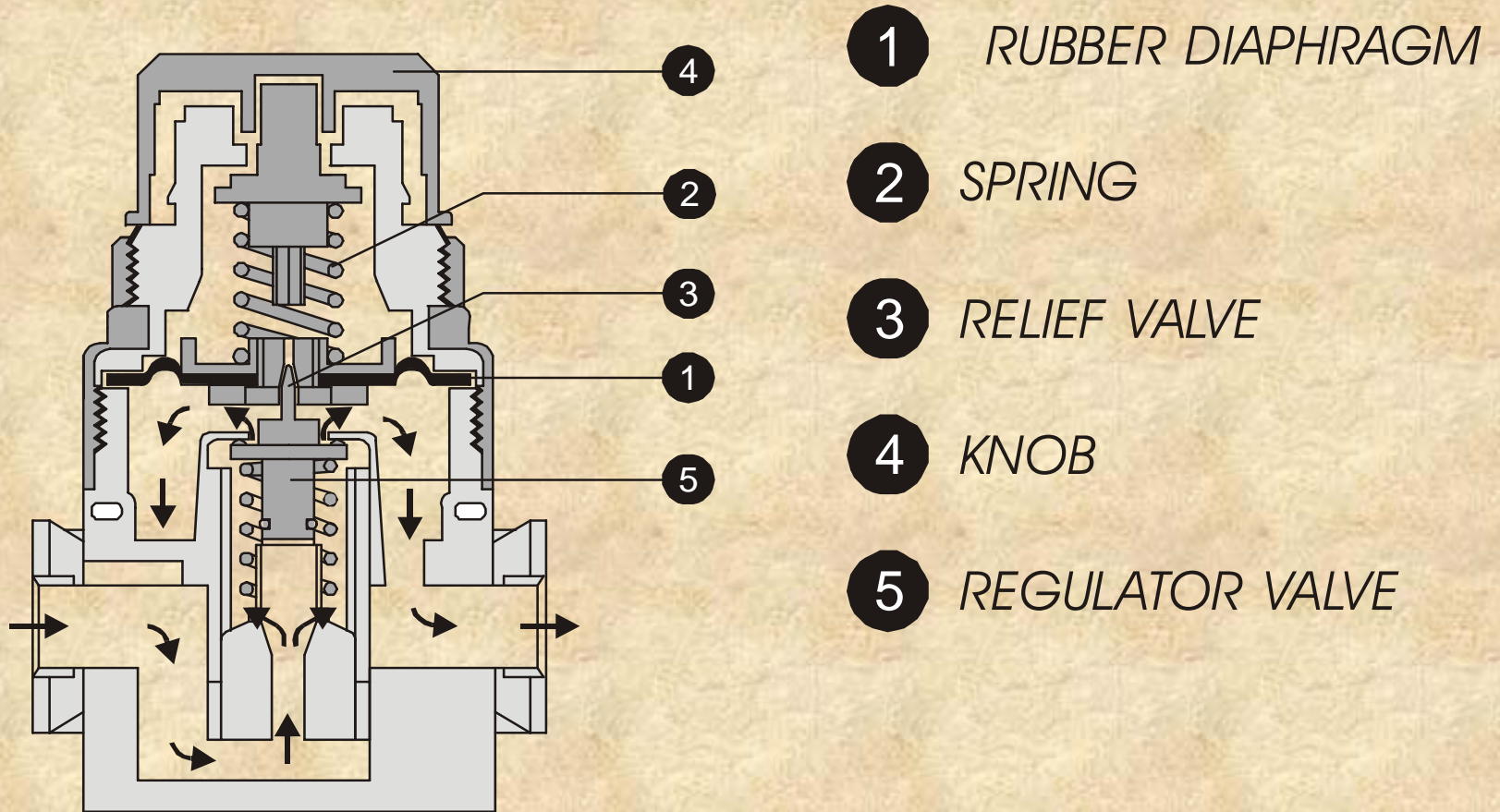
Air preparation units

Pneumatic filter

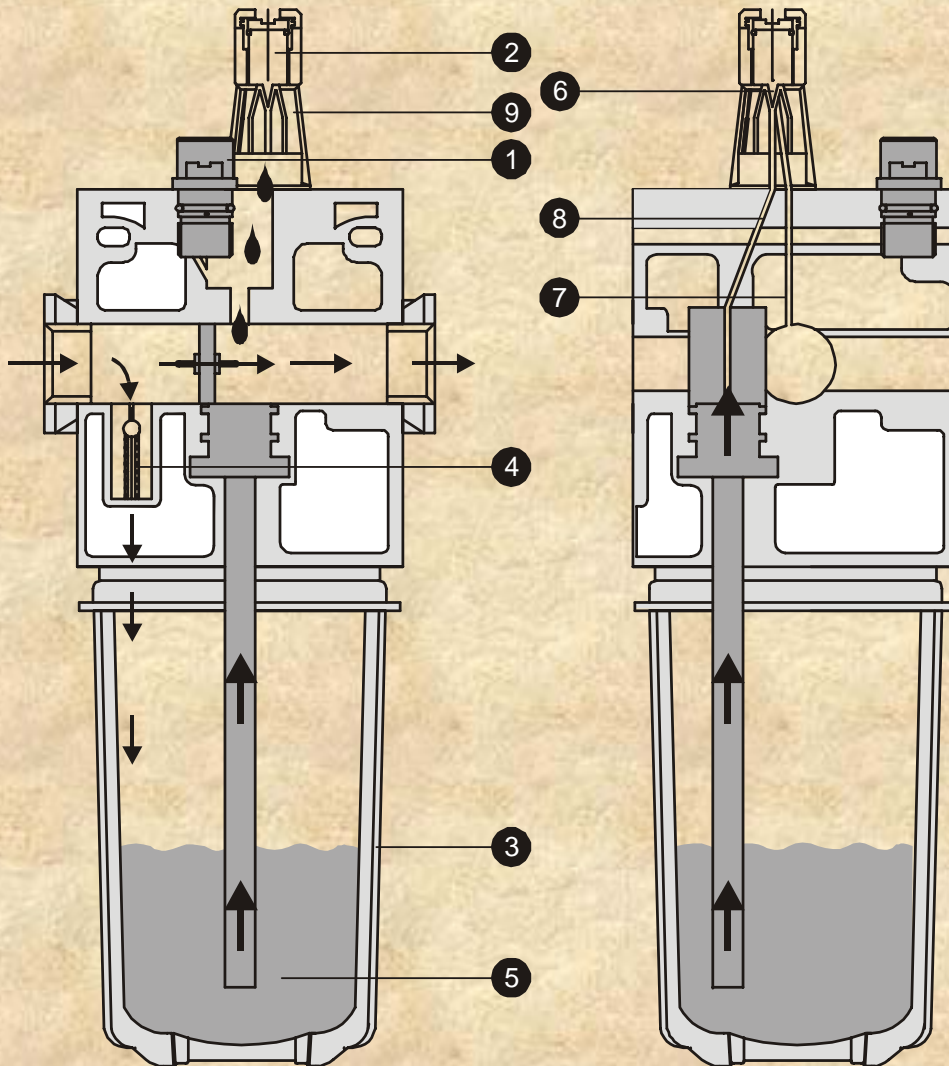


- ① LOUVRES
- ② BOWL
- ③ BAFFLE
- ④ FILTER ELEMENT
- ⑤ DRAIN
- ⑥ SILENT ZONE
- ⑦ CONDENSATE
(REMOVED FROM COMPRESSED AIR)

Pressure regulator



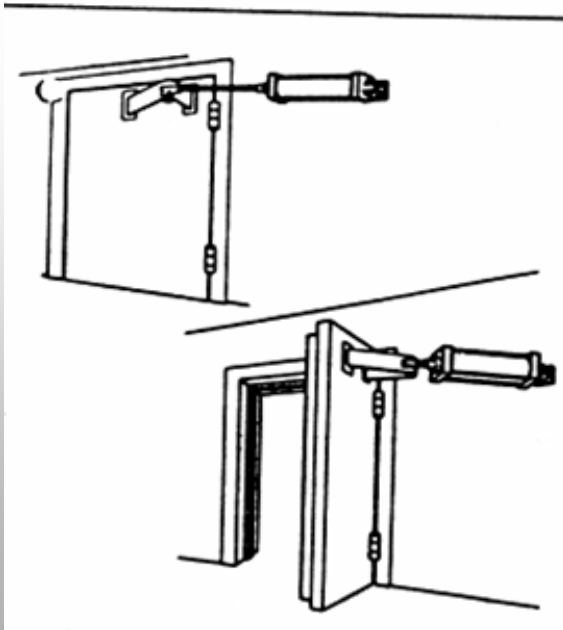
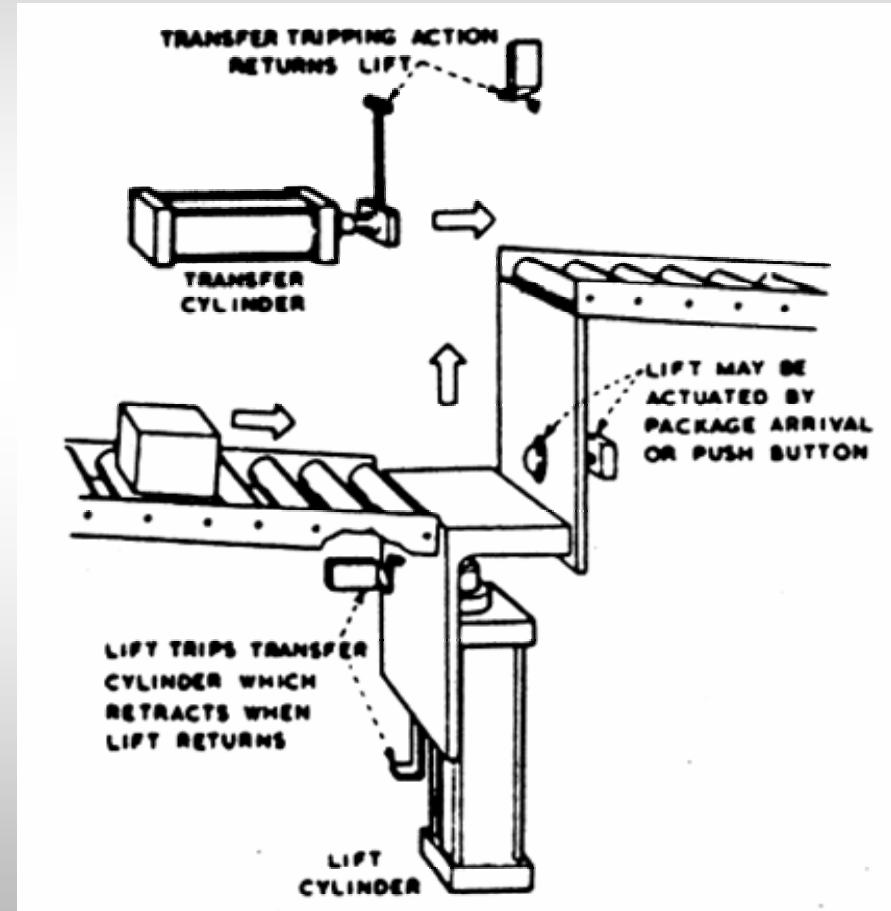
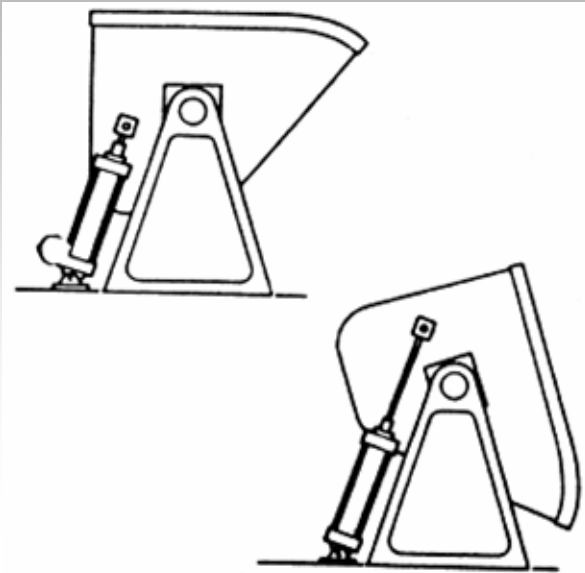
Pneumatic lubricator



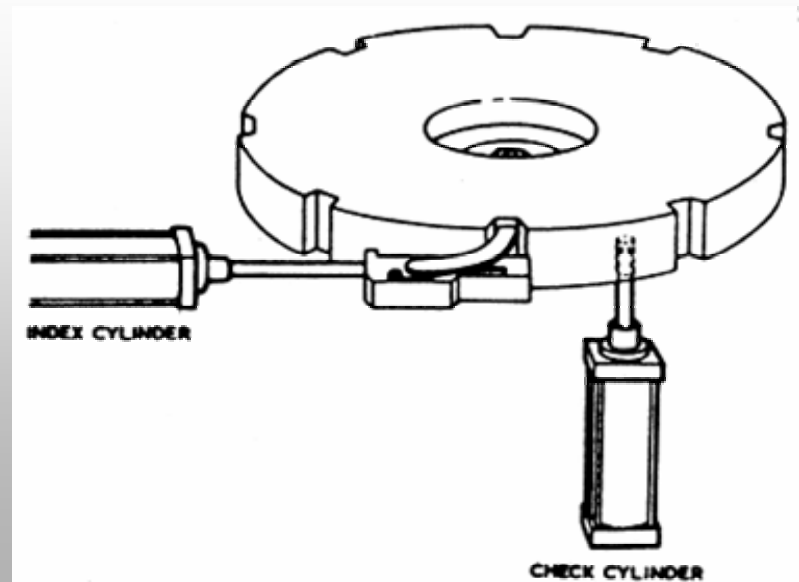
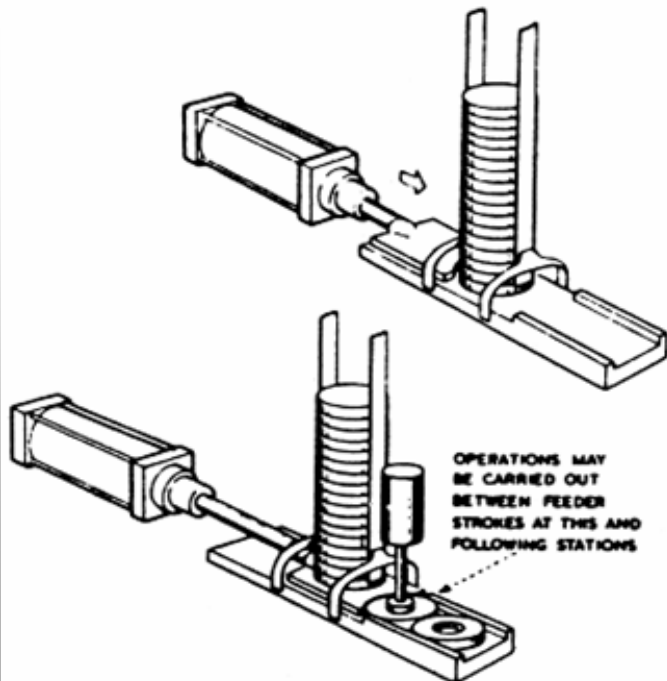
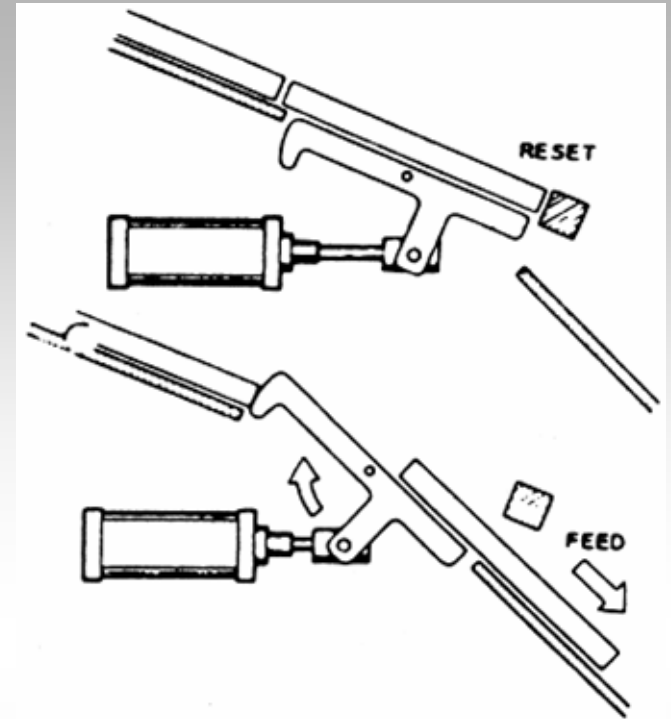
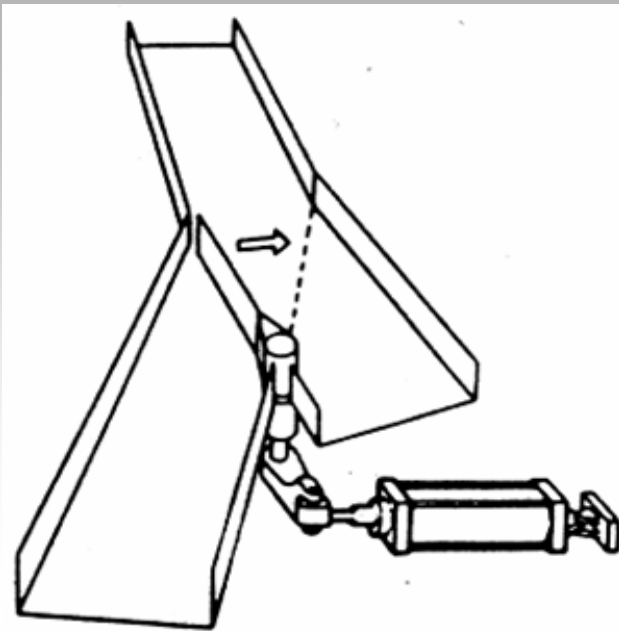
- ① OIL FILL PLUG
- ② OIL FLOW ADJUSTMENT SCREW
- ③ BOWL
- ④ CHECK VALVE
- ⑤ LUBRICATING OIL
- ⑥ NEEDLE VALVE
- ⑦ TUBULAR PASSAGE
- ⑧ SIPHON
- ⑨ SIGHTFEED DOME

Pneumatic applications

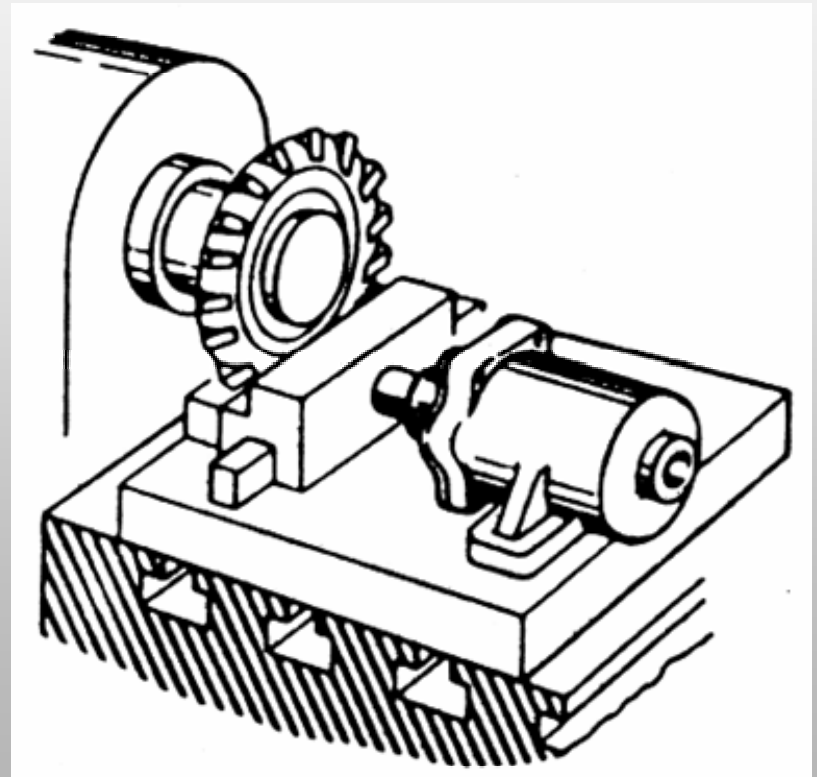
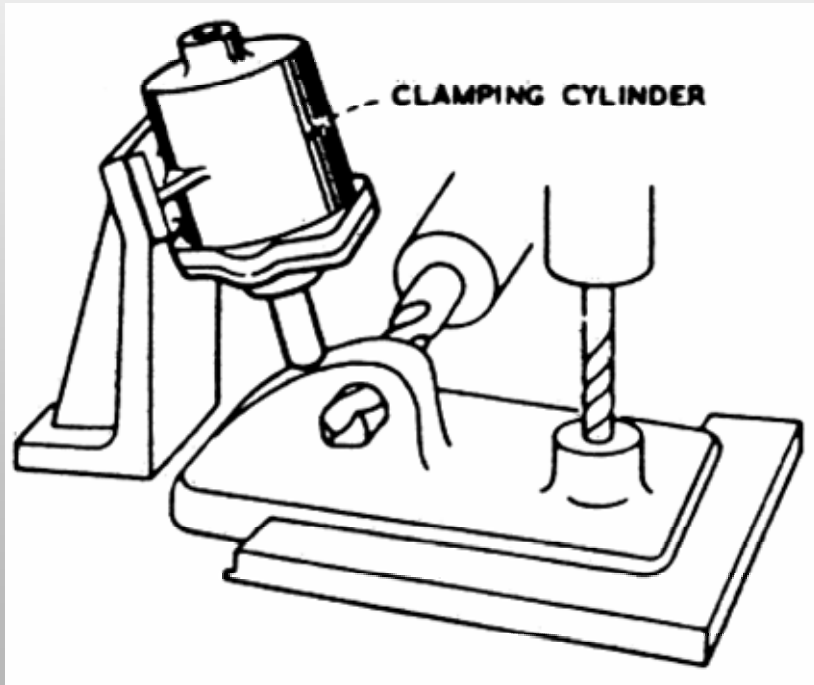
Move



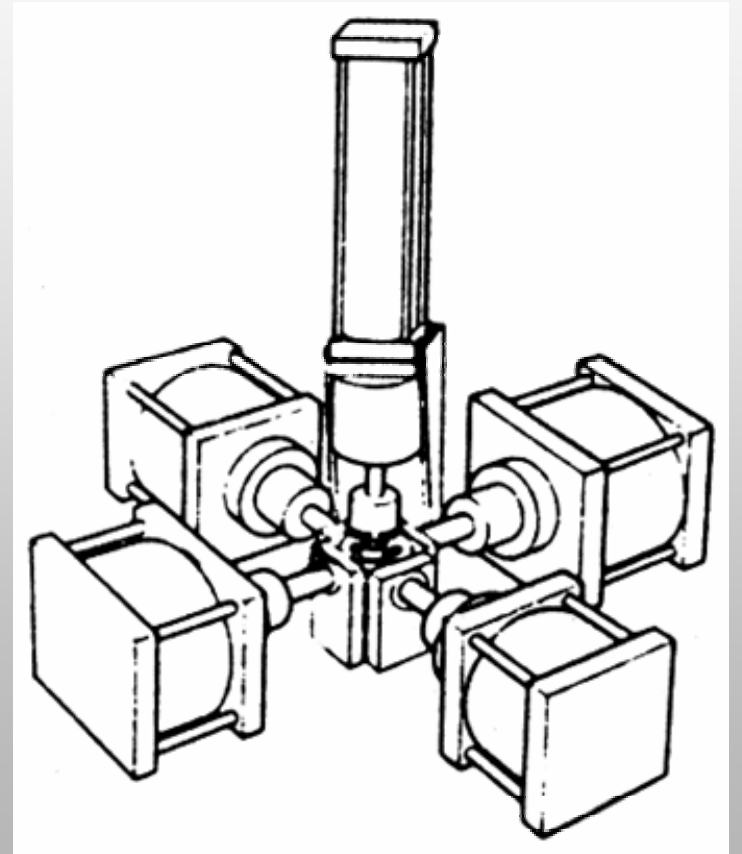
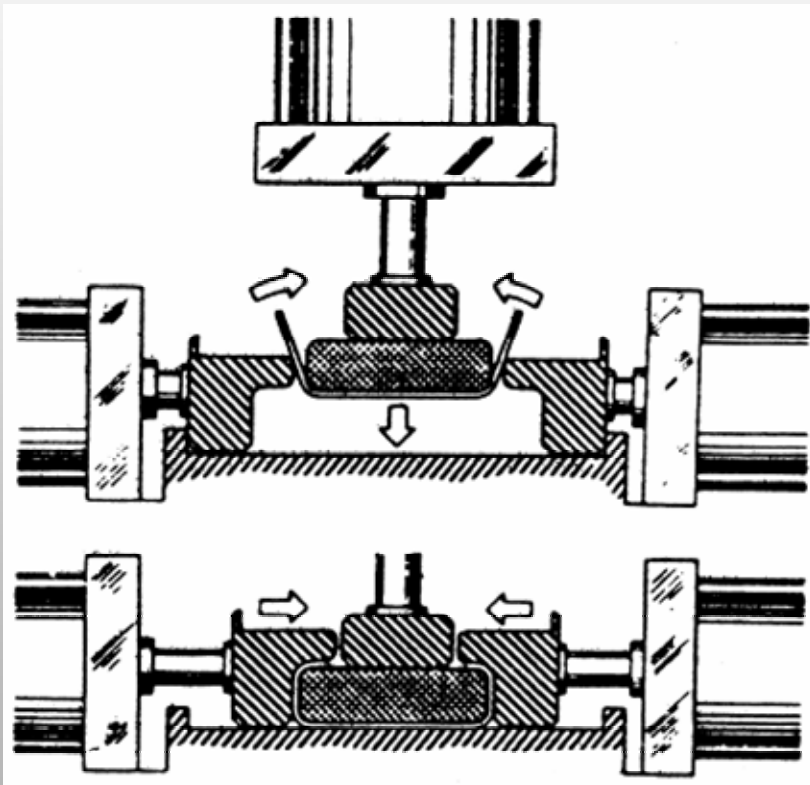
Move



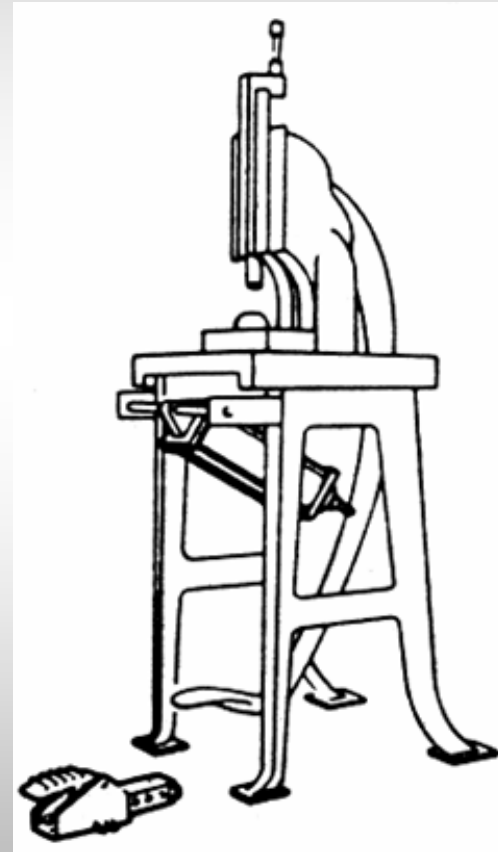
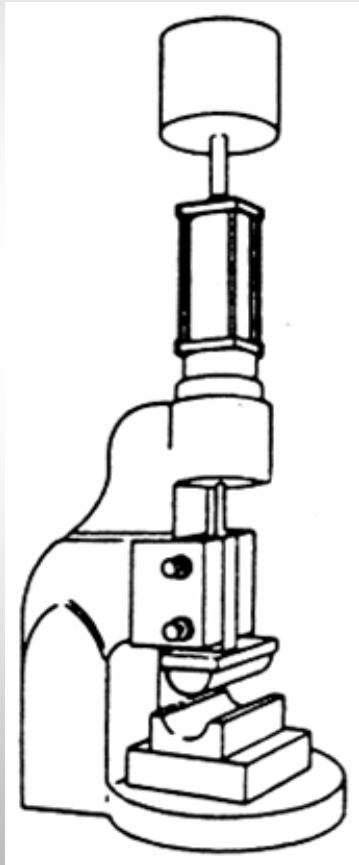
Hold



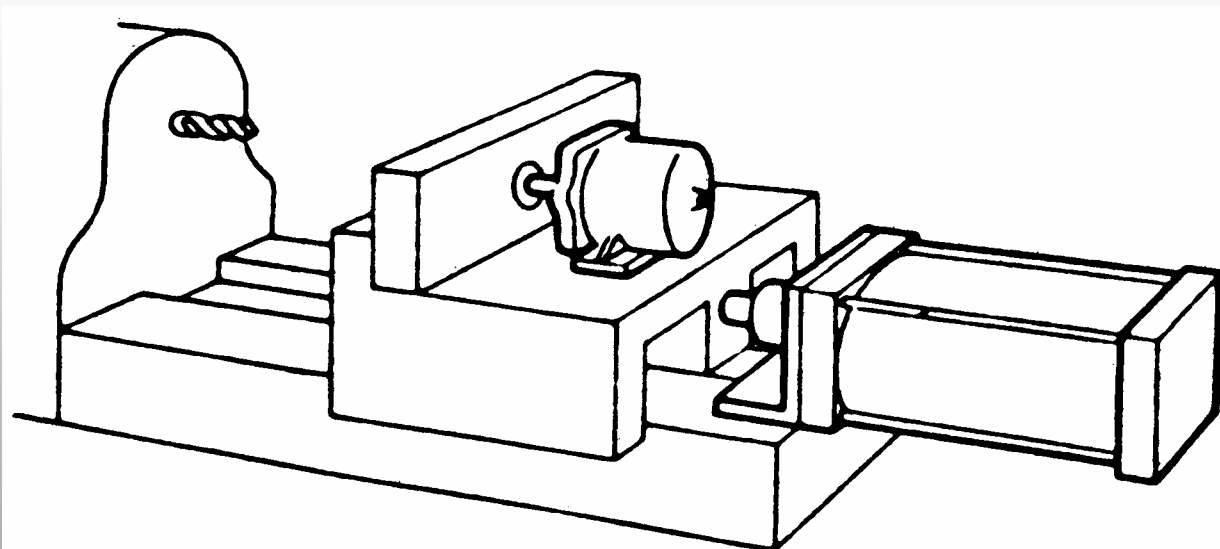
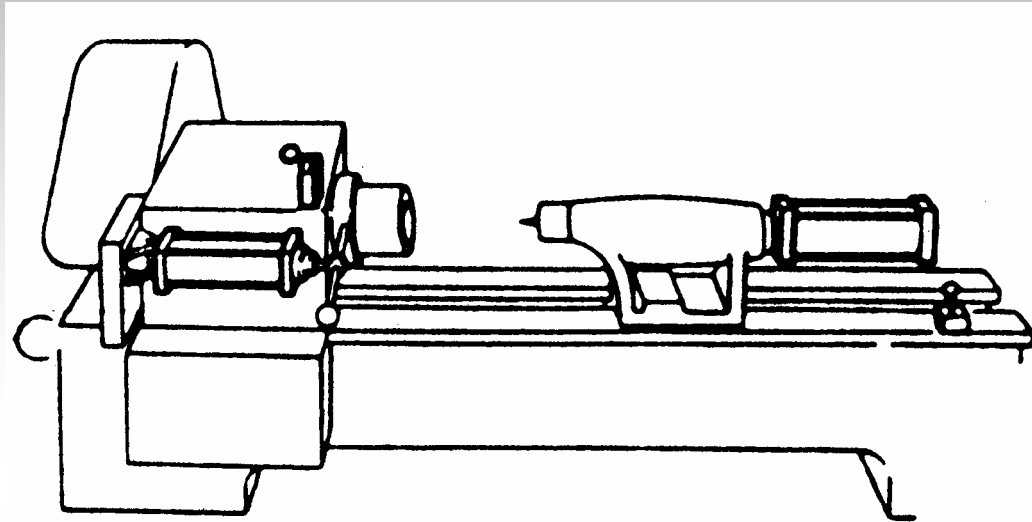
Form



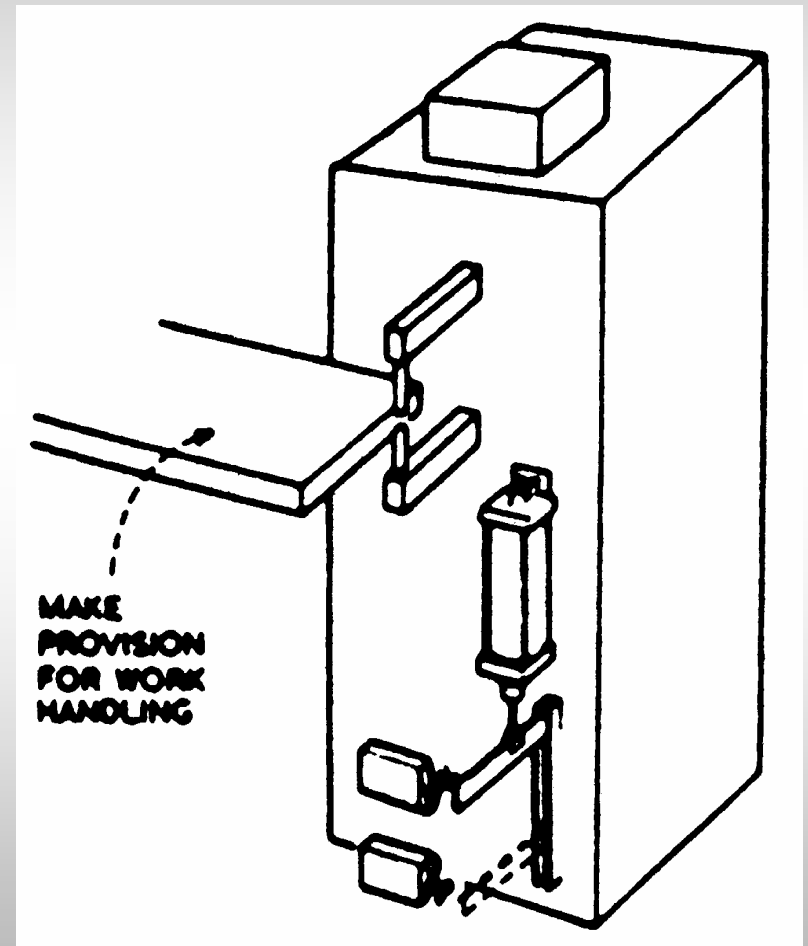
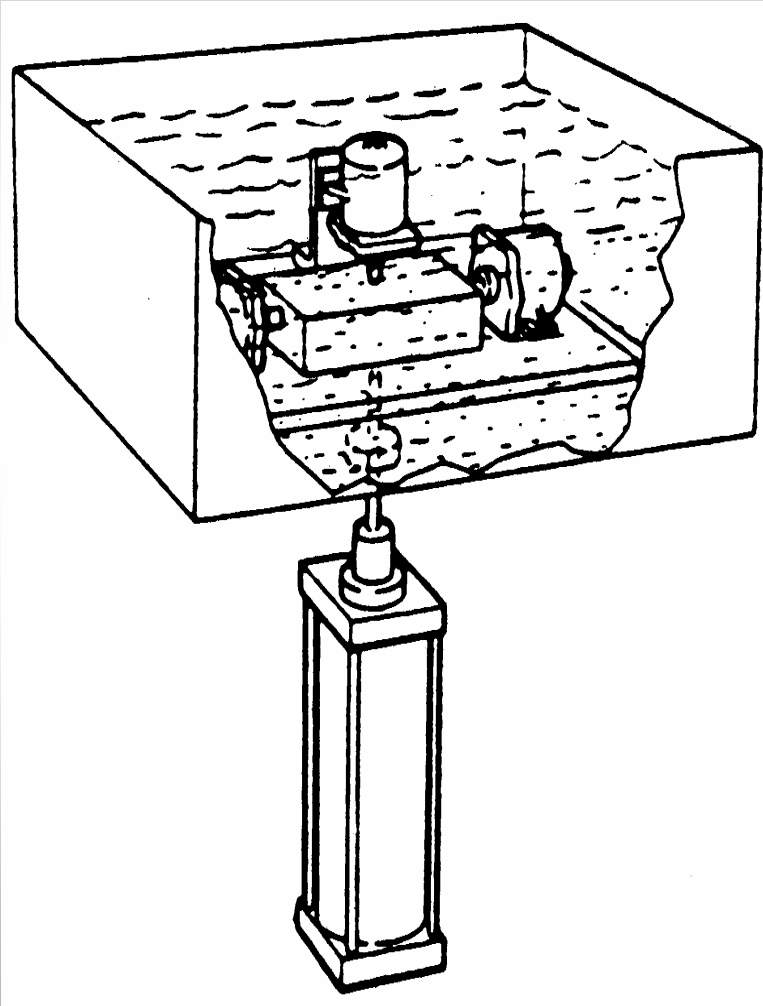
Form



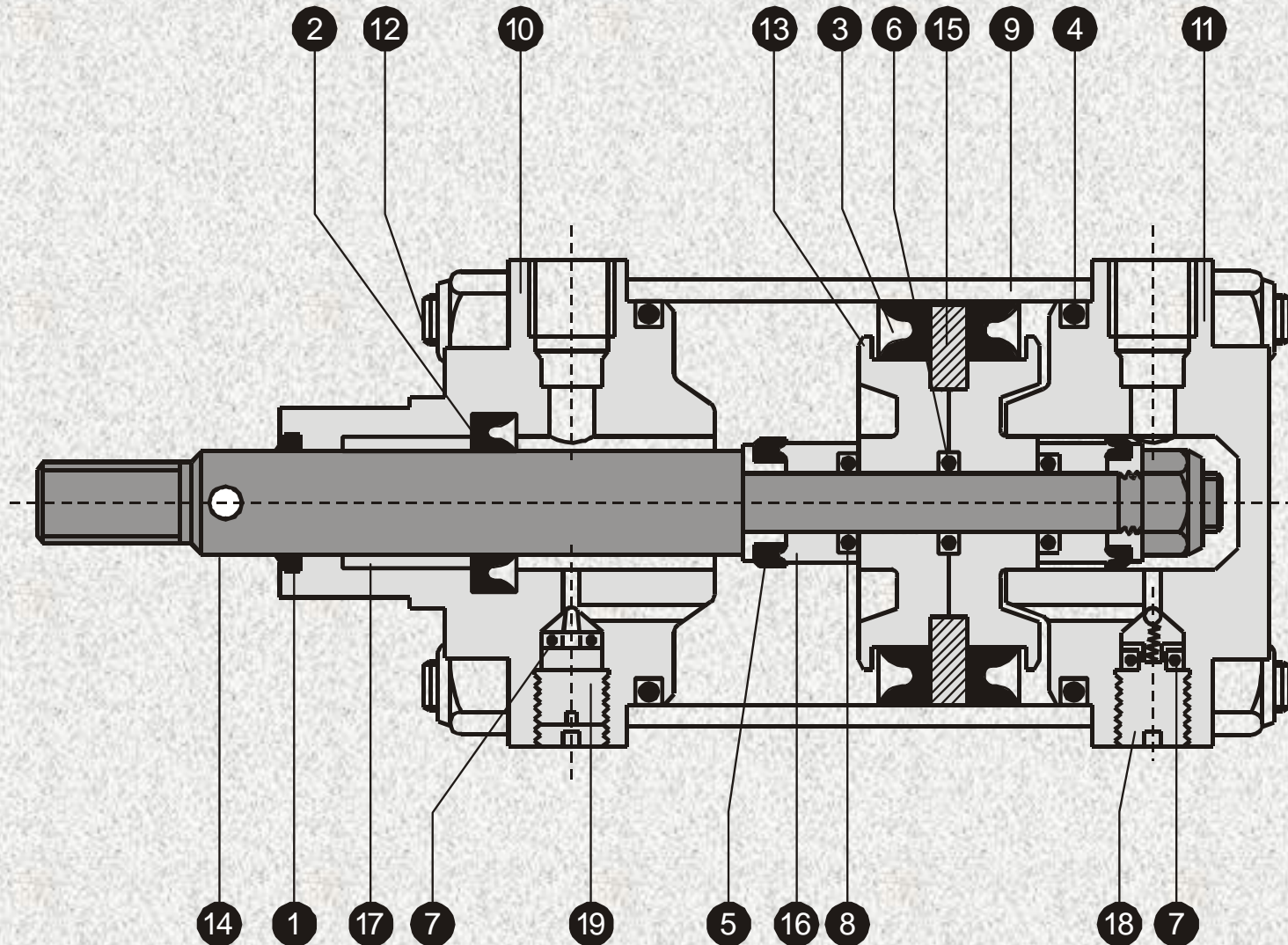
Process



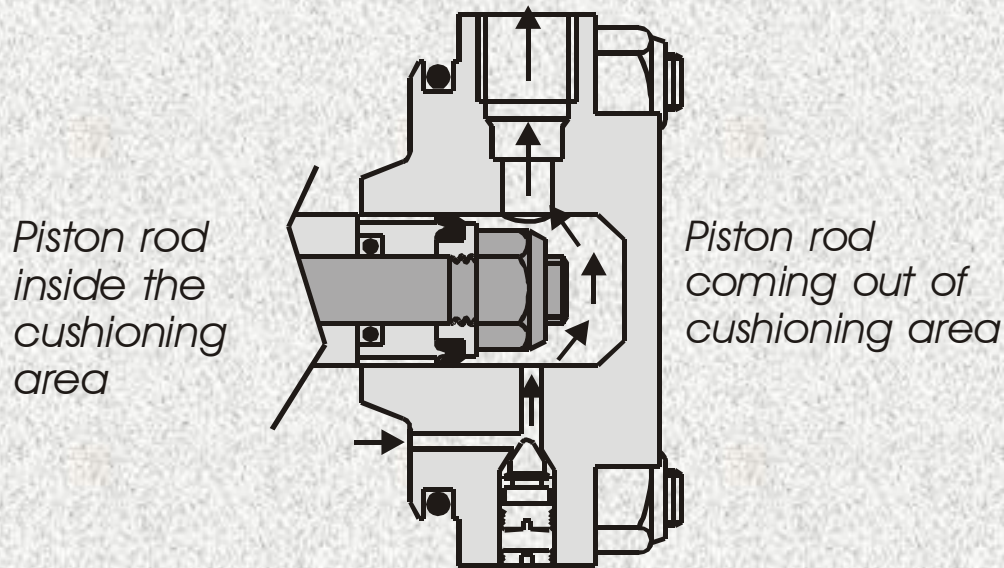
Process



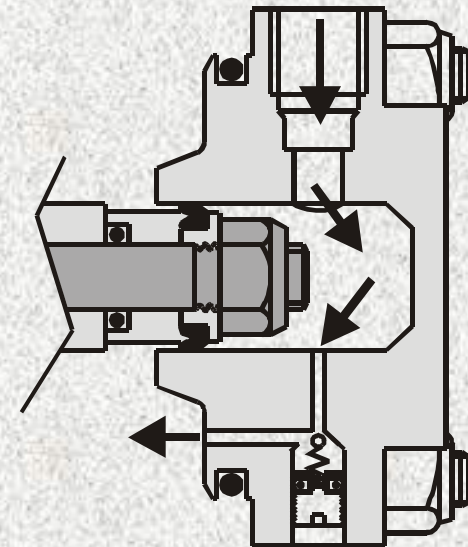
Pneumatic cylinder



Cushioning arrangement (Inch series cylinders)

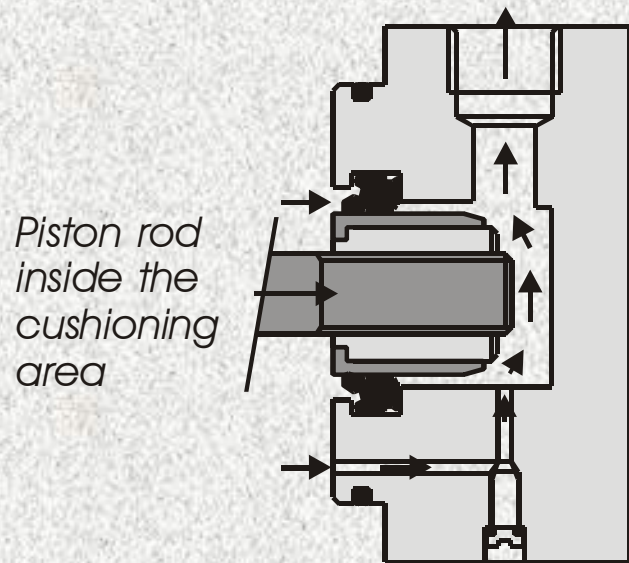


*Cushioning arrangement
with cushioning screw details*



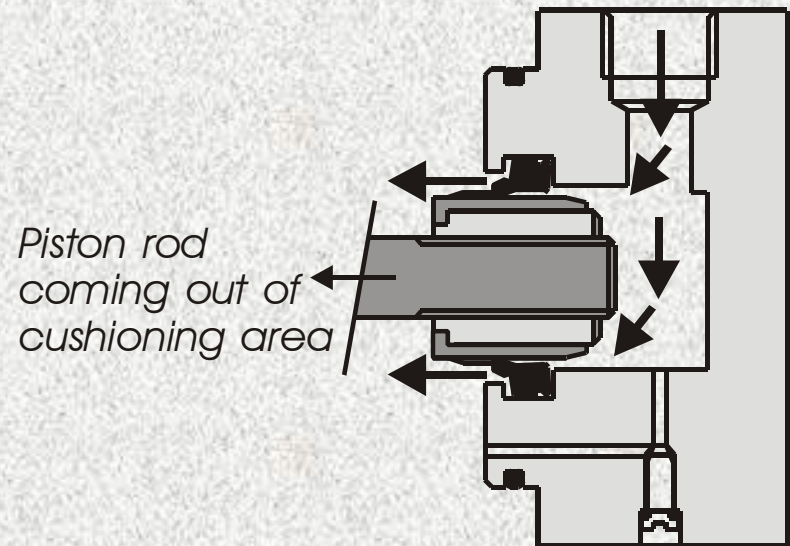
*High speed breakaway arrangement
with check screw details.*

Cushioning arrangement (ISO/VDMA cylinders)



*Piston rod
inside the
cushioning
area*

*Cushioning arrangement
of ISO cylinder*



*Piston rod
coming out of
cushioning area*

*Unique cushioning seal design
gives high speed breakaway*

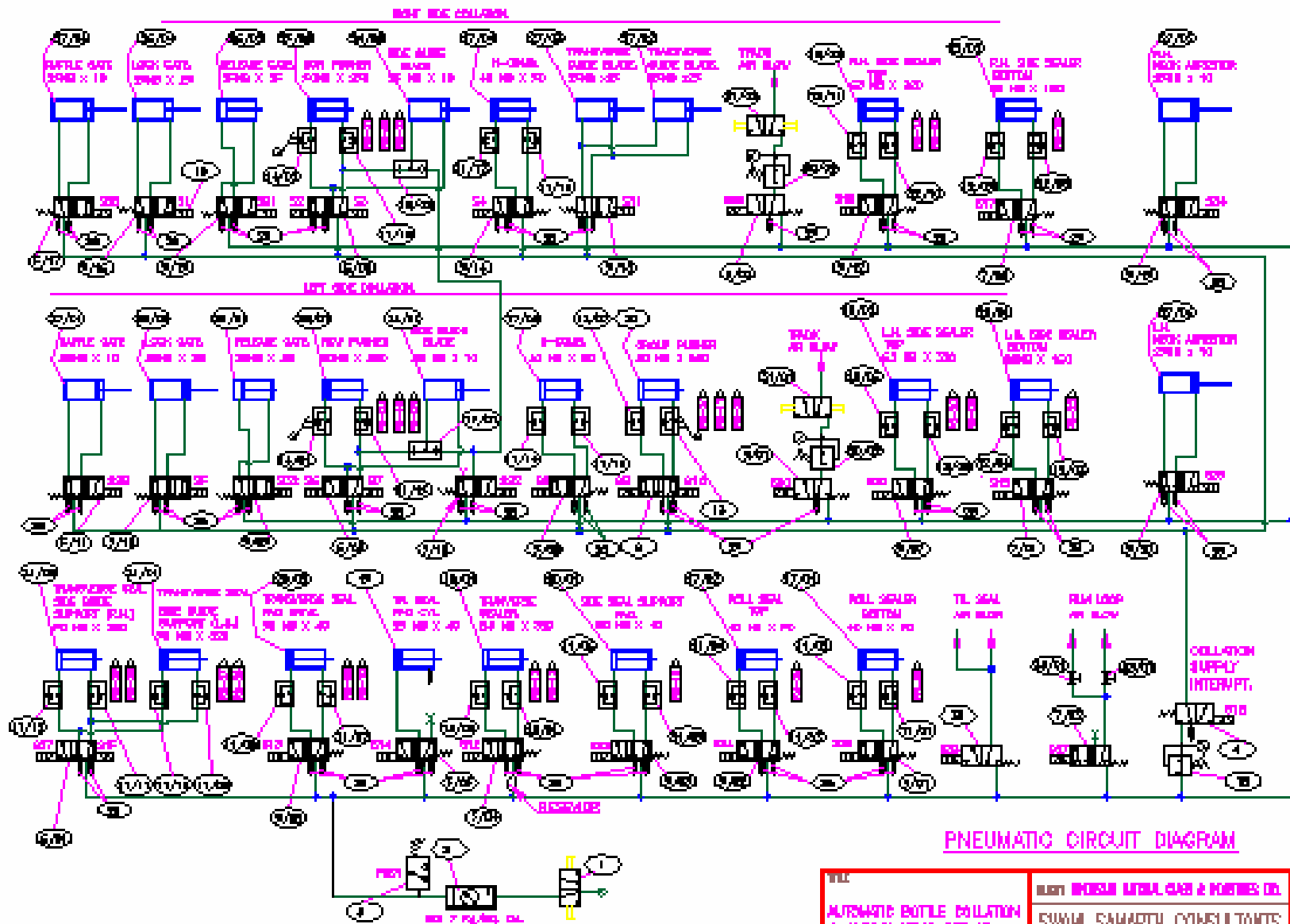
PNEUMATIC CIRCUIT DIAGRAM

ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.

DONOT SCALE DRAWING.

IF IN DOUBT ASK.

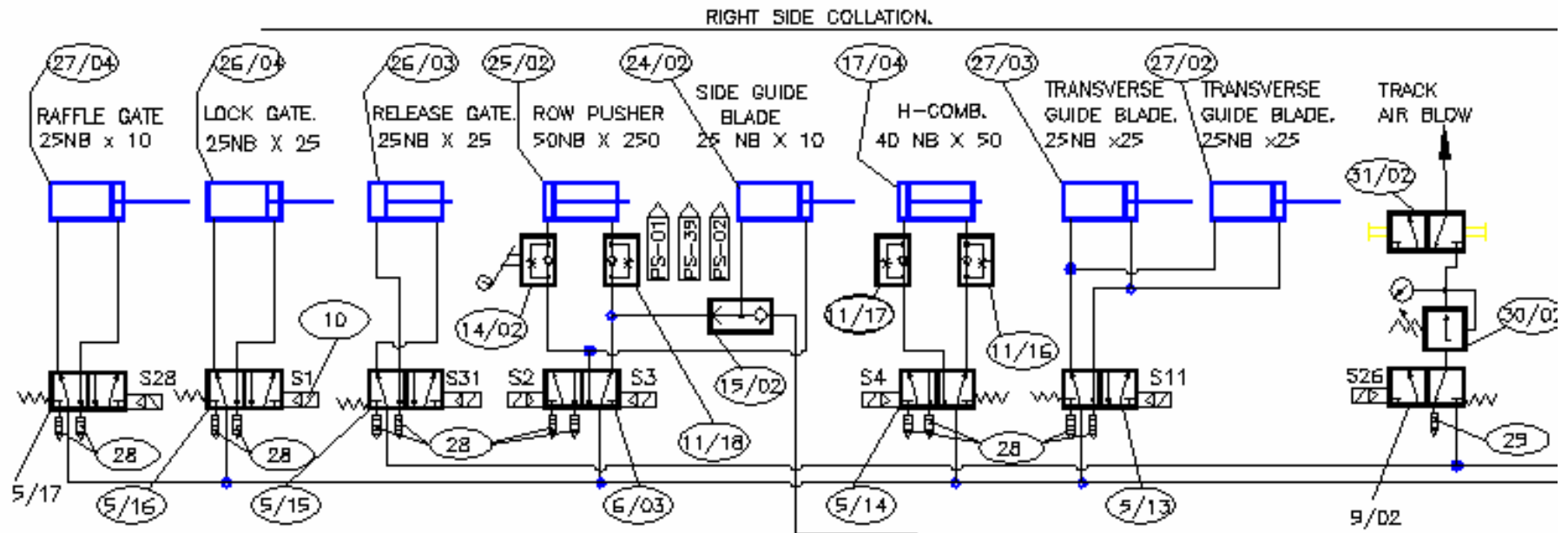
REMOVE SHARP EDGES AND CORNERS.



PNEUMATIC CIRCUIT DIAGRAM

TYPE AUTOMATIC BOTTLE FILLATION & CAPPING-MEPP SET-UP.	CLIENT INDOUSIN METAL CABLE & FORTNITE CO. SUNAM SAWARATH CONSULTANTS	 FORM NO. 4-1-1-1
---------------------------------------------------------------------	----------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

PNEUMATIC CIRCUIT DIAGRAM

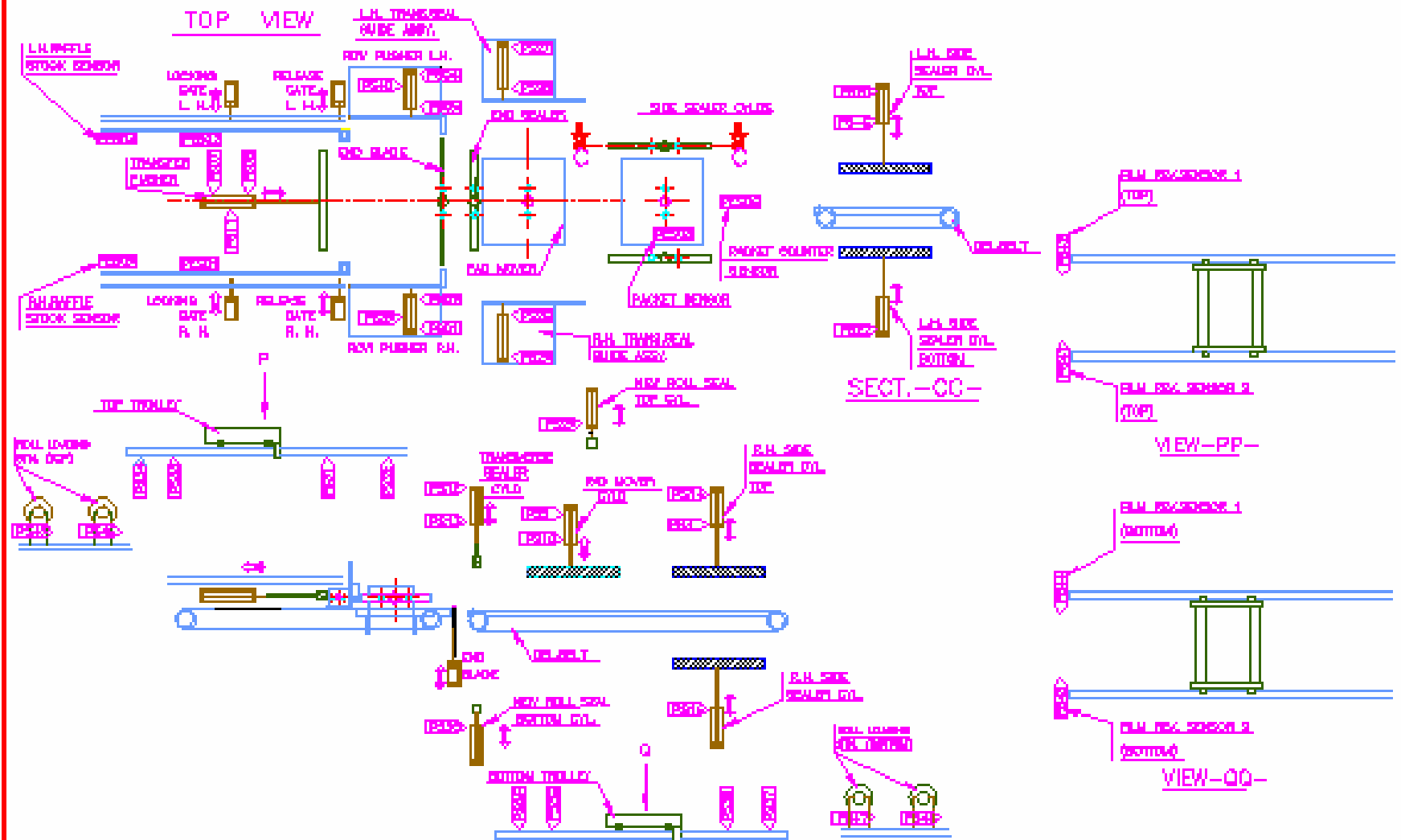


SCHEMATIC VIEW

DISTOT SCALE DRAWING.

F IN COLLET ASK.

REMOVE SHARP EDGES AND CORNERS.

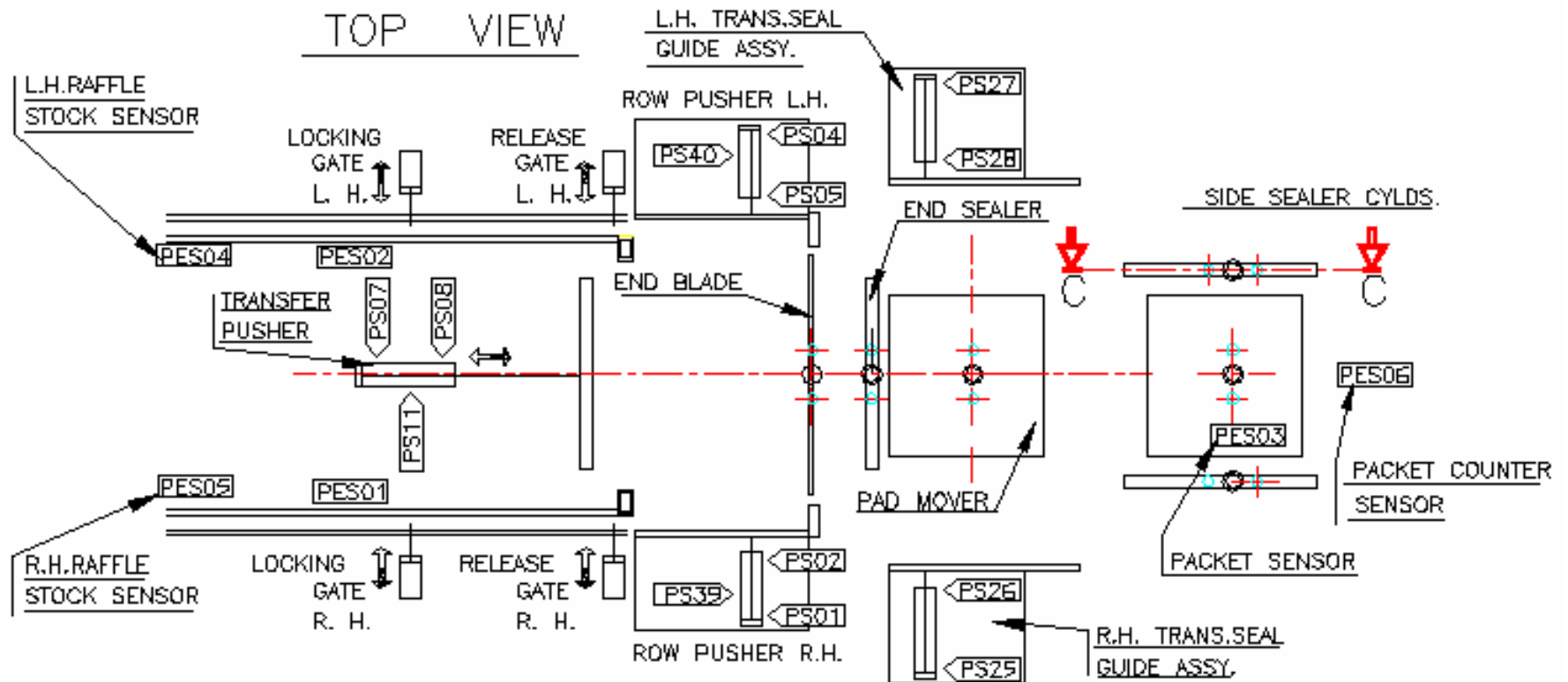


TECHNICAL DEPT
GENERAL MFG. EQUIPMENT
AUTOMATIC BOTTLE COLLATE
P. 800-80-8000 EXT. 100

SWAMI SAMARTH CONSULTANTS



SCHEMATIC VIEW



BOTTLE COLLATION ZONE

