Sequencing Hydraulic Functions

Machine: | **Actuator:** Cylinder | **Function:** Sequence

Prepared for :

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Prepared by :

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Schematics

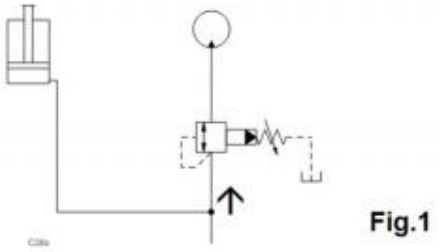

Fig.1

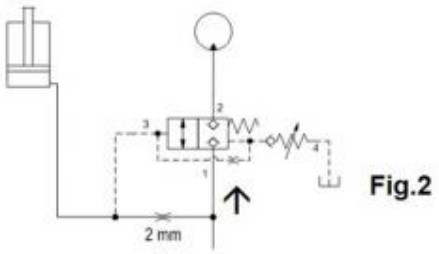

Fig.2

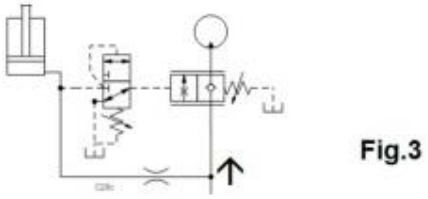

Fig.3

Summary

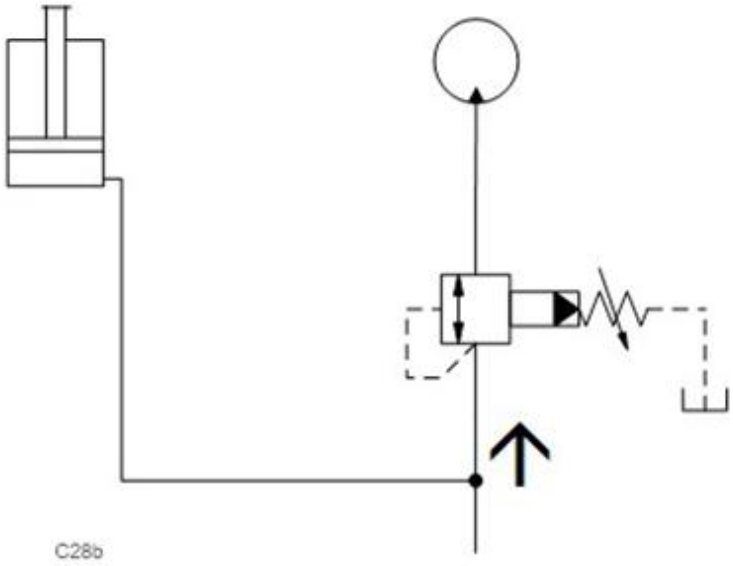

Fig.1

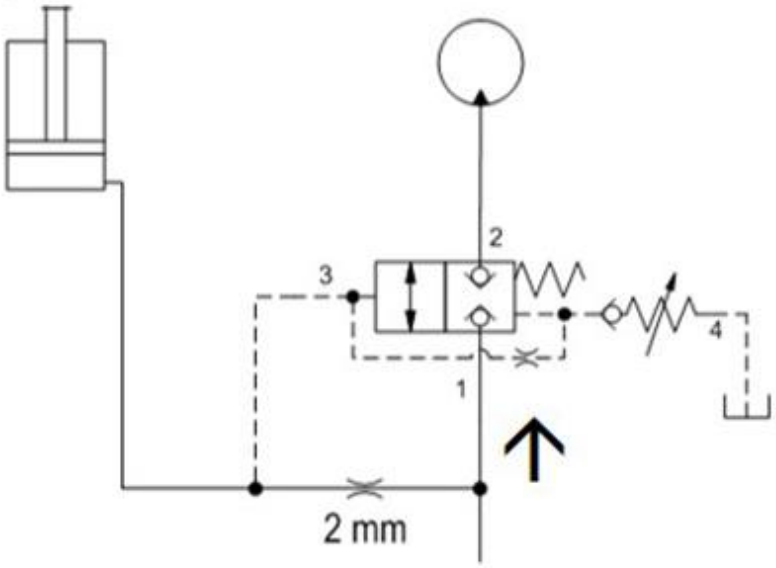

Fig.2

Related Products

Cartridges

RSDC - Pilot-operated, balanced piston sequence valve
DKDP - Normally closed, balanced poppet, logic element - pressure adjustable
DRBC - 3-way, direct-acting, directional valve with internal drain to port 3 (1 blocked, 2 to 3 open)
MWDM - Model

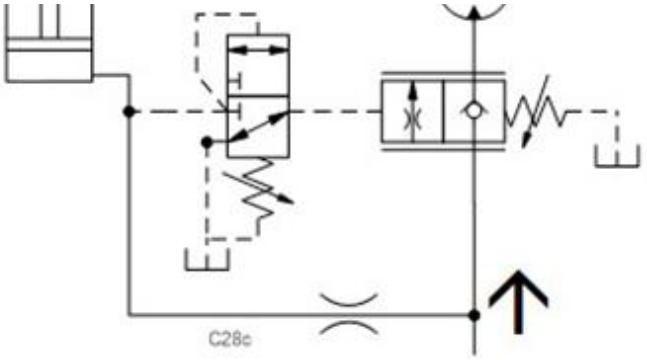

Fig.3

In this example, circuits demonstrate normally closed balanced elements upstream from a motor. When the cylinder pressure is satisfied, the valve will shift and allow oil to the motor.

- **Sequence valve: RS*C**
- **Normally closed, balanced logic element: DK*P**
- **3-way, direct-acting, directional valve: DRBC**
- **Normally closed, balanced logic element: MW*M**

Benefits of this circuit arrangement:

- **Fig. 1** shows a sequence valve to ensure pressure on the (clamping) cylinder before the motor rotates (a drill).
- **Fig. 2** The logic element DK is an adjustable, leak-free valve that doesn't open until pressure in a (long) hose builds up to clamp a (drilling) tool - e.g. with a cylinder. There is no minimum pressure drop required for flow to the motor once the logic valve is open.
- **Fig. 3** shows a vented load control valve instead of the logic valve in circuit 2. It incorporates a reverse free-flow check. The 2/3-way DRBC unloads the pilot port of the MW*M to tank until P3 exceeds the setting of the DRBC.