Pressure Ramp Up for Improved Pressure Control (2)

Machine: | **Actuator:** Pump | **Function:** Pressure

Prepared for :

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Prepared by :

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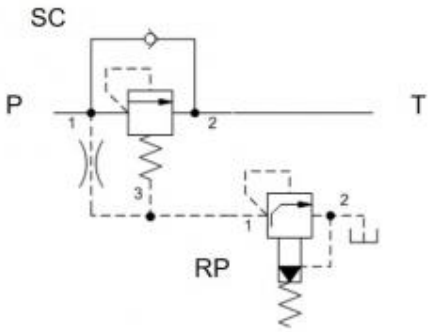
Schematics



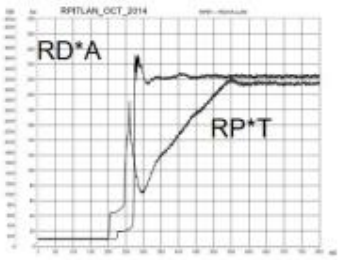


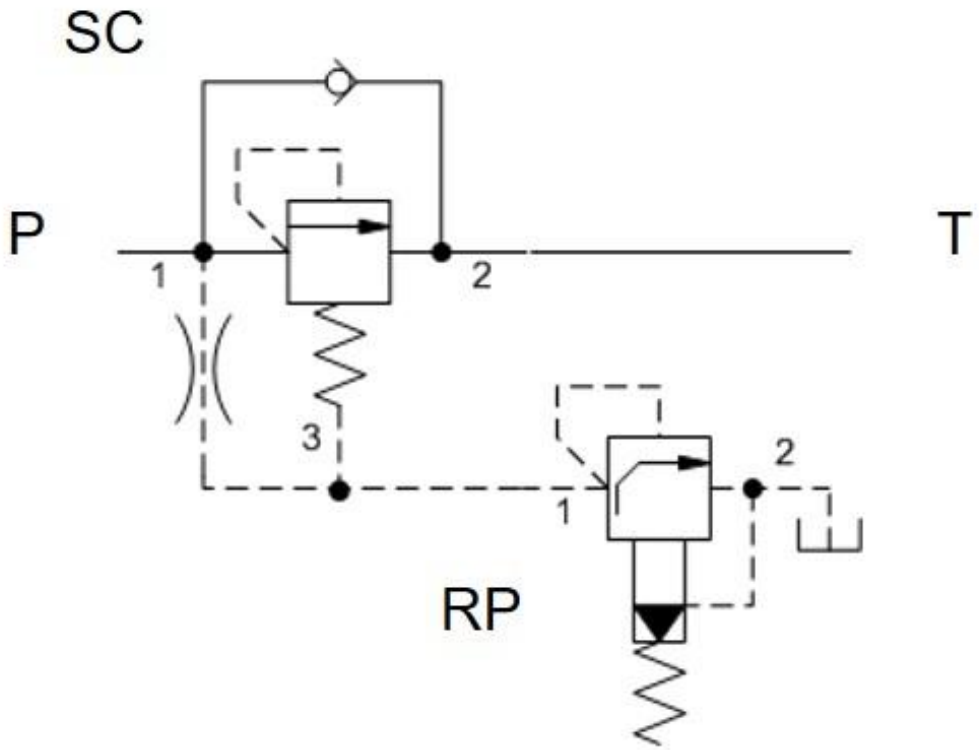
Fig. 1

Summary

Related Products

Cartridges

RPET - Anti-Shock, pilot-operated, balanced poppet relief valve
SCEA - Direct-acting sequence valve with reverse flow check



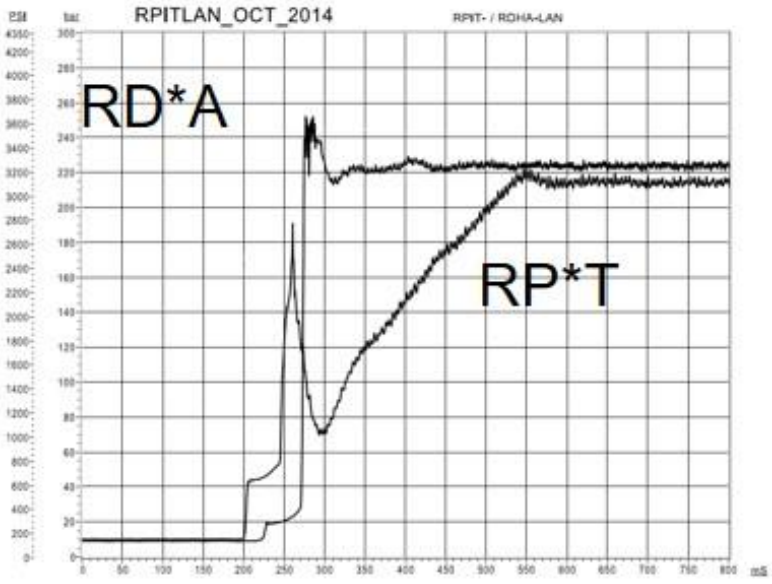


Fig. 1

A direct-acting sequence valve SC*A can be used as a main stage relief. By applying pressure onto port 3, the setting and/or relief characteristics of the SC*A can be controlled separately from the main stage. An external orifice is used to limit the pilot flow to the relief valve RP*T

- **Direct-acting sequence:** **SC*A,**
- **Relief valves as pilot:** **RP*T, RD*A**

Benefits of this circuit arrangement:

- The direct-acting sequence valve SC*A as a main stage controls high flow rates well and has a good response time. Since the pilot valve (RP*T) has a high capacity, the main stage SC*A can open very fast. Piloting a SC*A with a RP*T effectively produces a 3 stage valve
- **Fig.1** shows the step response of a standard direct-acting relief valve RD*A and an anti-shock relief RP*T.
- The SC*A should be set to its minimum setting without pilot pressure. Approximately 300 psi is a good minimum setting for a fast reseat.