

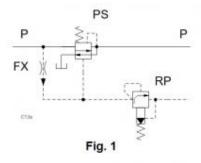
Pressure Ramp Up for Improved Pressure Control (3)

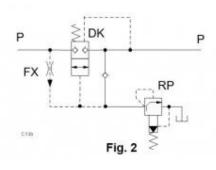
Machine: | Actuator: Pump | Function: Pressure

Prepared for :	Prepared by :

Schematics

Summary





Related Products

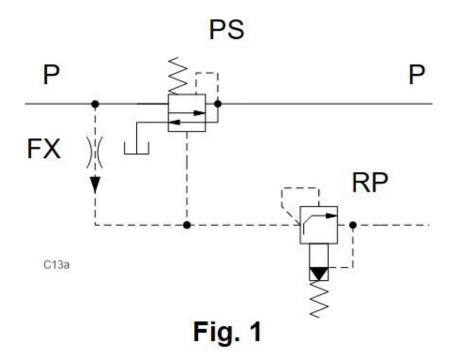
Cartridges

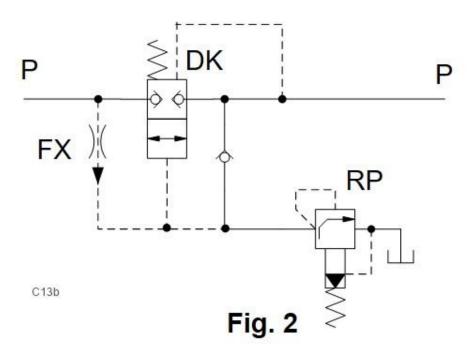
PSDT - Direct-acting, pressure reducing/relieving main stage piloted from port 4

DKHS - Normally closed, balanced poppet, logic element - pilot-to-open *RPET* - Anti-Shock, pilot-operated, balanced poppet relief valve

FXAA - Fixed-orifice, pressure compensated flow control valve

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This example shows a direct-acting pressure-reducing/relieving main-stage element piloted with pressure created by an anti-shock relief valve. Fig.2 shows a normally closed balanced logic element as pressure-reducing valve.

Pressure-reducing /relieving: <u>PS*T</u>
Balanced logic element: <u>DK*S</u>
Anti-shock relief: <u>RP*T</u>
Flow control: <u>FX*A</u>

Benefits of this circuit arrangement

• Standard pressure-reducing/relieving valves (pilot-operated PP** and direct-acting PR**) are normally open valves that allow a pressure spike travelling through the valve when the supply pressure increases rapidly.

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- Both circuits use normally closed elements. They open only after pilot pressure has built up between the pilot flow control and a pilot relief valve.
- Fig.1 uses a direct-acting spool-type reducing/relieving valve as a main stage. It gives a precise pressure control. The controlled pressure P is about 10 psi below the setting of the pilot valve RPET. Using a proportional valve RBAP instead of a RPET provides good control at very low pressures.
- Fig. 2 uses a normally closed balanced logic valve DK*S as a main stage. It offers greater pressure reducing stability when the downstream flow changes rapidly. A check valve between the pilot stage and P provides an optional additional relief function.

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