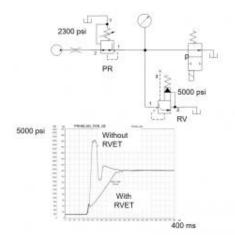


Pressure Ramp Up for Improved Pressure Control (1)

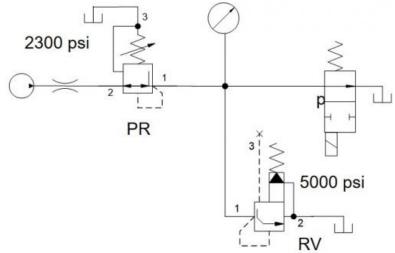
Machine: | Actuator: Pump | Function: Pressure

Prepared for : Prepared by :

Schematics



Summary

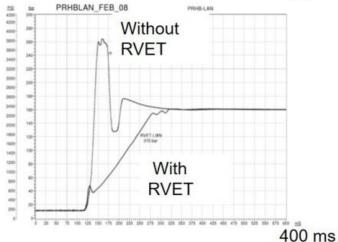


Related Products

Cartridges

PRBB - Direct-acting, pressure reducing/relieving valve PPBB - Pilot-operated, pressure reducing/relieving valve RVET - Anti-Shock, ventable, pilot-operated, balanced poppet relief valve





In this example, a vented anti-shock relief valve RV*T is used in a bypass leg of a pressure reducing valve. Port 3 of the RV*T is plugged. In the set up for the test, the 2/2-way directional valve represents a cylinder that either moves freely or stops. In the example, a direct-acting PR*B controls the pressure. The RV*T controls the rate of pressure rise only and not the final controlled pressure level.

Direct-acting pressure control:
Pilot-operated pressure control:
PP*B
Vented anti-shock relief:
RV*T

Benefits of this circuit arrangement:

 The additional RV*T improves the dynamic pressure control with PR* or PP* valves. The controlled pressure shows no overshoot when the flow to the motor stops, a cylinder stops against a load or when it is fully extended.

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• The additional RV*T also avoids pressure spikes when the upstream supply changes - for example, when the directional valve is activated. The setting of the pressure control valve (2300 psi) is below the setting of the anti-shock relief valve.

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