

Regenerative circuits made easy

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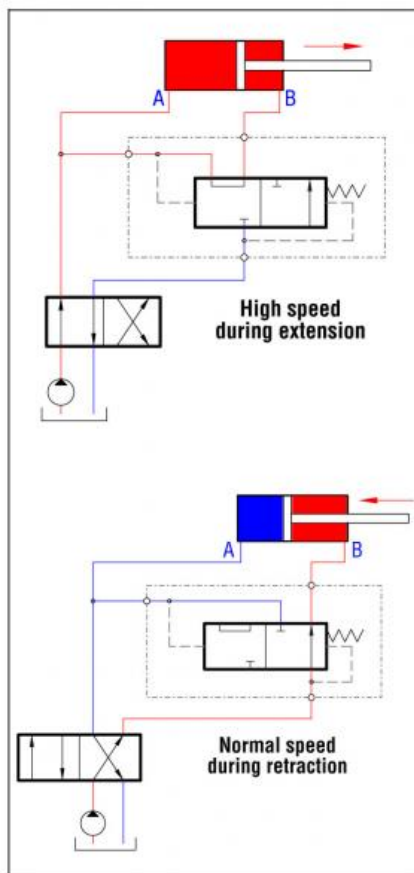
Fri, 2012-11-09 14:10

[Regenerative circuits](#) save time and energy by increasing the extension speed of double acting cylinders. They do this by routing fluid exiting the rod end of the cylinder back to its cap end instead of routing the fluid to tank.

Scanwill SV series speed valves make it simple to produce regenerative, double-acting hydraulic cylinder performance by adding a standard component to a conventional circuit. Manufactured by Scanwill Fluid Power ApS, Albertslund, Denmark, speed valves are piped between a cylinder and its directional control valve. A pilot-shifted spool interconnects the cylinder's A and B ports for high-speed, low-pressure regenerative extension. When the circuit's main directional control valve commands the cylinder to retract, the spring and pilot signal at the opposite end of the speed valve automatically shift it to send flow out of the A port directly to tank.



Speed valves allow easy incorporation of flow regeneration into circuits simply by connecting the valve's three ports between a double-acting hydraulic cylinder and directional control valve.



Rated for pressures to 500 bar, four SV series models handle flows of 40, 50, 120, and 200 lpm. They suit new installations or retrofits. These compact units are only 115-mm long and 35 mm in diameter. All fluid connections have 3/8-in. BSP threads. Speed valves do not affect cylinder retraction.

When power is important

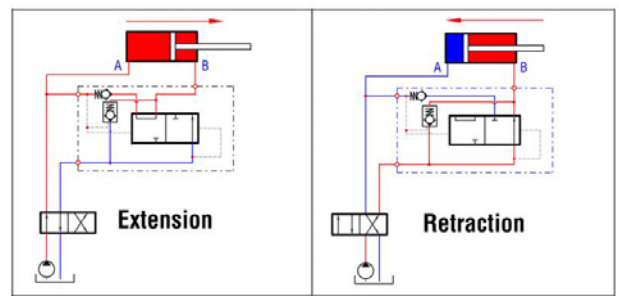
SV-type speed valves are intended for applications where high-speed extension is important, not hydraulic power. A variation is the SVA type speed valve, which achieves both high speed and full cylinder force. It provides high-speed, low-pressure regenerative extension until a predetermined load pressure is encountered. The valve then automatically shifts to allow the full force of the cylinder to be applied.

Operation of speed valves is completely automatic; no additional controls are needed. Typical

Functional schematics show high-speed, regenerative extension and normal-speed retraction using Type SV speed valve.

applications include presses, waste compactors, mobile equipment, and machine tools.

Contact Scanwill Fluid Power ApS at info@scanwill.com or visit www.scanwill.com. Scanwill speed valves are available in North America from IC Fluid Power, Rossford, Ohio. Call them at (419) 661-8811 or visit www.icfluid.com.



Functional schematics show operation of Type SVA speed valve. High-speed extension is achieved by routing flow from the pump and the cylinder's rod end into the cylinder's cap end. When a predetermined load pressure is reached, the valve shifts to route only pump flow to the cap end and routes return flow from the rod end to tank.

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