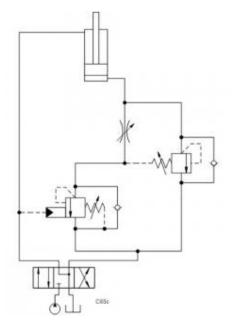


## **CBV Stability Improvement by Reducing Flow (2)**

Machine: | Actuator: Cylinder | Function: Counterbalance

Prepared for : Prepared by :

#### **Schematics**

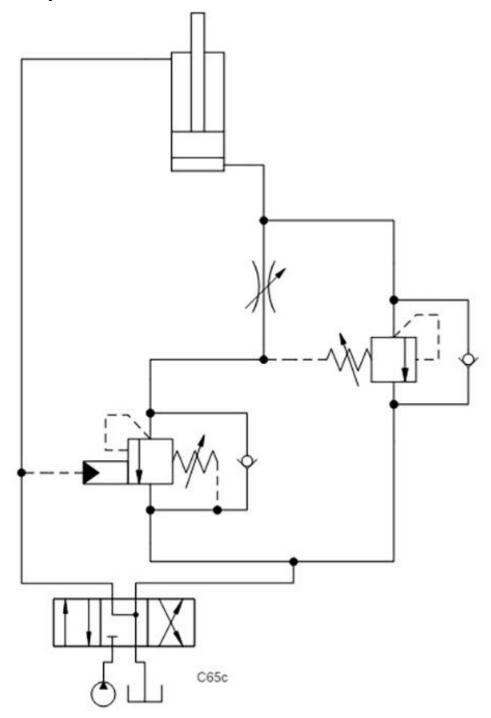


## **Related Products**

#### Cartridges

CBAA - 3:1 pilot ratio, ultra-restrictive counterbalance valve SCEB - Atmospherically referenced, direct-acting sequence valve with reverse flow check NFAB - Fully adjustable needle valve - pilot capacity

# **Summary**



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The example shows a circuit where flow to a counterbalance valve is reduced to increase stability. A sequence valve in parallel to the CBV diverts the majority of the flow away from the CBV.

Standard counterbalance: CB\*\*, MB\*\*
Direct sequence valve: SC\*\*
Needle valve: NF\*\*

Benefits of this circuit arrangement:

- A counterbalance valve (CBV,) needle valve (NV) and sequence valve (SV) are connected to the full bore side of a cylinder as shown in the circuit.
- CBV is opened by the pressure created from a low-volume flow through the NV. This pressure also reduces the SV setting, allowing a larger volume of oil to flow through SV from the cylinder.
- The circuit gives a good resolution and good stability at low flows through CBV regulated by the pilot pressure to CBV.
- The direct-acting SV is suitable for load-holding applications and incorporates a reverse-free-flow check for cylinder extension.

For Sun technical support, contact Steve Weber.

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