

Sun Hydraulics – CBI?

- Pilot area ratio?
- Flow level 480 l/min
- How many?

CVG (Control Valve Group)

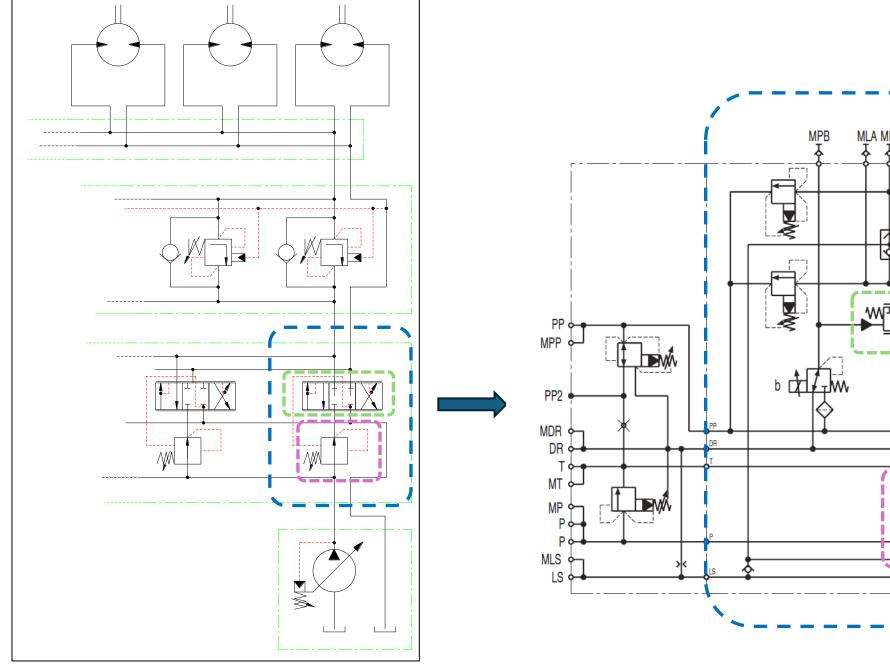
- Main spool: sufficient flow (more than one?)
- Setting of pressure compensator
- Checking return pressure drop
- Open/closed center?

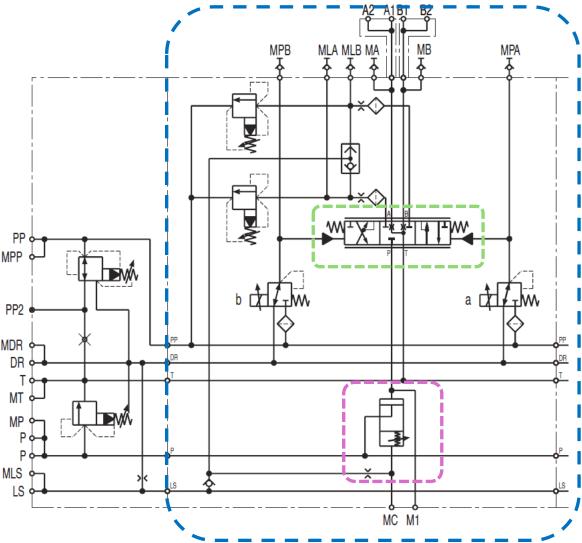
Simply a pressure source with some limitations

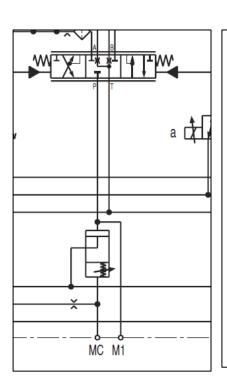
- Pressure level
- Maximum flow

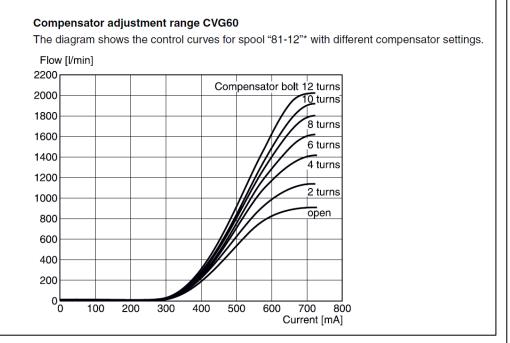












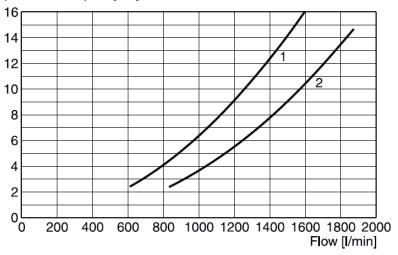
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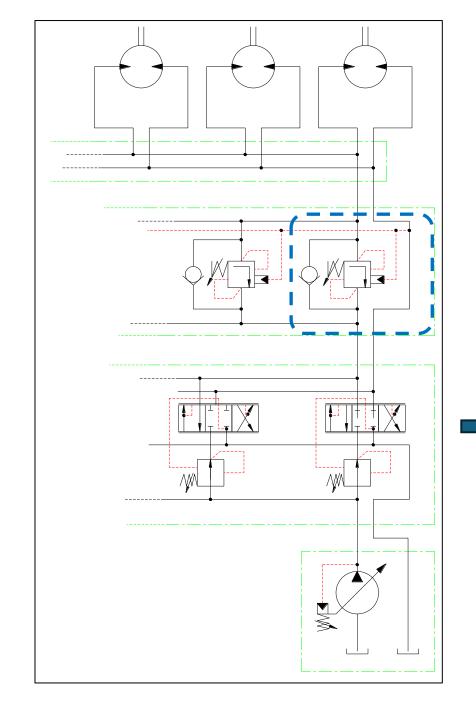
Pressure drop CVG60 spools

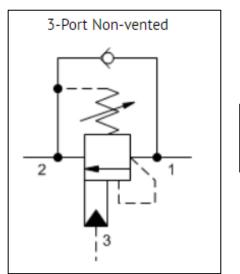
The diagram below specifies the pressure loss over spool control edge.

∆p over main spool [bar]



spool	nominal size	Position b		Position a	
		P-B	A-T	P-A	В-Т
10	1000 l/min (size 60)	1	1	1	1
12	1200 l/min (size 60)	2	2	2	2





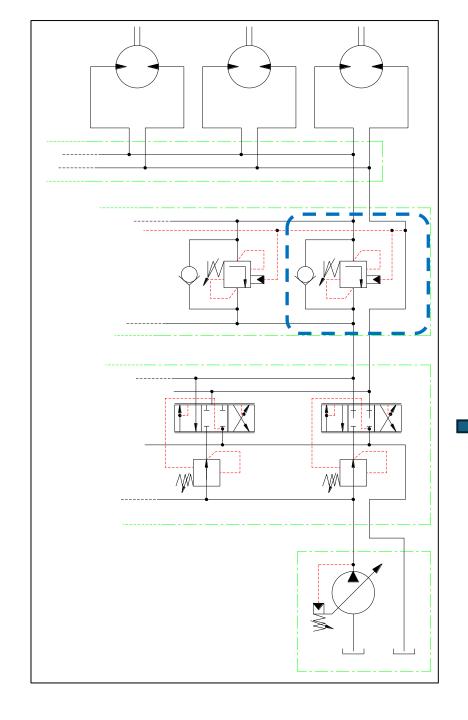
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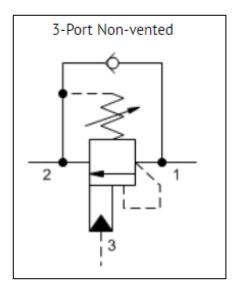
• Pilot area ratio?

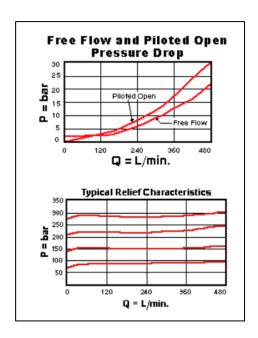
$$p_1 + \alpha \cdot p_3 = p_{cr} + (1 + \alpha) \cdot p_2$$

$$p_1 - p_3 = \Delta p_M = \frac{2 \cdot \pi \cdot M_M}{D_M}$$

$$p_3 = \frac{p_{cr} + (1 + \alpha) \cdot p_2 - \Delta p_M}{(1 + \alpha)}$$







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