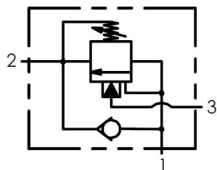


## Counterbalance Valve, Hydraulic Cartridge

### Functional Symbol



### Description:

A screw-in, poppet type, cartridge counterbalance valve with internal Check Valve. For use as a blocking or load-holding device in your Hydraulic system.

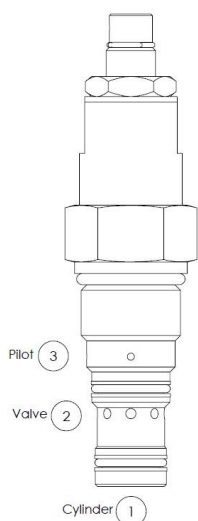
### Operation:

The DCBC allows unrestricted flow passage from port 2 to port 1, while blocking flow in the opposite direction. Pressure to Port 3 will release the flow from Port 1 to Port 2. A counterbalance, or load-holding, valve is a mechanism typically located near the actuator that uses hydraulic pressure to keep a load from moving. Generally, these valves have three related functions: support, control and safety.

When required for load support, these valves prevent a hydraulic actuator under load from drifting in position. When lowering loads, the counterbalance controls the rate or speed of motion of the load on the actuator.

### Features:

- Sealed spool for stability and repeatability.
- Hardened seat for long life and low leakage.
- Adjustable to achieve desired speed of load release.
- Compact size for space requirement consideration.
- Cartridge design for ease of installation and maintenance.
- 4.5:1 Pilot Ratio



### Ratings:

Rated Flow: 12 GPM (45 LPM)

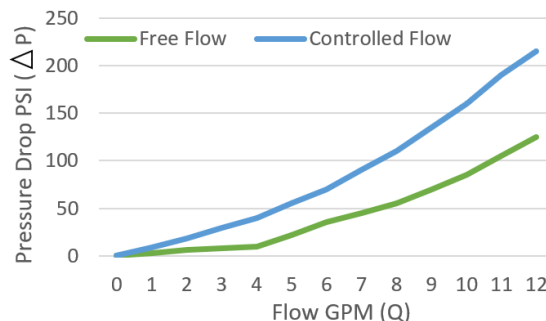
Max. Inlet Pressure: 5,500 PSI (415 bar)

Operating Temperature: -31° to 250°f (-35° to 121°c)

Leak Rate: < 5 drops per minute

Approx. Weight: .5 lbs. (0.23 kg)

**Performance Curve**  
**Flow vs. Pressure Drop**  
(Through cartridge only)



### Ordering Information:

DCBC		10	-	25	V	SS				
Model	Cavity		Control		Adjustment Range		Seal Material		Material Coating	
DCBC	08	8-3 Cavity	Blank	Standard Screw Adjustment	A	500-1500 psi (35-103 bar)	Blank	Buna-N	Blank	Plated Steel
	10	10-3 Cavity	T	Tamper Resistant- Factory Set	B	1500- 3000 psi (103-207 bar)	V	Viton	SS	Stainless Steel
	16	16-3 Cavity	K	Hand Knob	C	2500-5000 psi (172-345 bar)	R	EPDM	SS316	316 SST
					05	Factory Set to 500 psi 34.5 bar	W	Low Temp Buna-N		
					10	Factory Set to 1000 psi 69 bar				
					15	Factory Set to 1500 psi 104 bar				
					20	Factory Set to 2000 psi 138 bar				
					25	Factory Set to 2500 psi 173 bar				
					30	Factory Set to 3000 psi 207 bar				
					40	Factory Set to 4000 psi 276 bar				
				45	Factory Set to 4500 psi 311 bar					