

# HCS Brief

## Hydraulic Cartridge Systems

Tech Brief  
TB-0017

## Common Cavity Valves That Can Be Converted to EPR External Seals Only (no internal seals)

Parker-HCS receives requests from customers concerning the use of our threaded cartridge valves in systems/applications that require the use of EPR seals. Parker-HCS does not currently offer our cartridge valve products with EPR seals, though some of our cartridge valve product can be converted to EPR seals by the customer/end user by replacing the external seals. This is only applicable to cartridge valves that do **not** contain any internal seals.

In order to replace the external seals, Parker-HCS suggests the following procedure to remove the residual hydraulic oil from the valves prior to installing EPR seals since any hydraulic oil contacting the EPR seal could result in the seal to fail and the valve to leak.

**\*\*\*Suggested flushing procedure for the removal of residual hydraulic oil from the valve\*\*\***

1. Remove all existing external seals (o-rings/d-rings and back-up rings) from the valve.
2. Thoroughly wash off all residual hydraulic oil from the valve using Isopropyl Alcohol, Brake Cleaner, Mineral Spirits, etc.
3. Install EPR o-rings and back-up rings onto the cartridge valve.

To assist our customer and end users in determining if their Parker-HCS cartridge valve can be used with EPR seals, the chart below is being provided to show which of the HCS cartridge valve families can be used with EPR seals.

**\*\*\*Note - This is for cartridge valves without manual overrides/adjustment screw since these contain internal o-rings\*\*\***

<b>C08-2</b>	<b>C10-2</b>	<b>C10-4</b>
DSL(H)081C,CR,CH,CHR,N,NR	DSL(H)101C,CR,CH,CHR,N,NR	DSL(H)104B,B2,E1,E4,E15,M,N
DSL(H)082C,N	DSL(H)102C,N	DSL105C1,C2,C4,C7,C9
D02B2	CVH103P	FCP101F
CVH081P	D04B2	FDC101
<b>C08-3</b>	<b>C10-3</b>	L04A3
DSL(H)083A,B,C,N	DSL(H)103A,B,C,N	R04A4
<b>C08-4</b>	CVH104P	R04B4
DSL(H)084B,N,M,E1	CPC101P	DH103B,C
	FCR101F	N04A4
	R04C3	N04B4
	R04D3	

<b><u>C12-2</u></b>
CVH121P

<b><u>C16-2</u></b>
D06B2P
CVH161P

<b><u>C16-3</u></b>
FCR161F

<b><u>C16-4</u></b>
L06A3

<b><u>C20-2</u></b>
CVH201P

**More Information**

Parker valves are available from the Hydraulic Cartridge Systems Division. Consult your HCS catalog or [www.parker.com/hcs](http://www.parker.com/hcs) for more information. You can also contact a Product Manager or Technical Support Specialist for help at 847-955-5000 or [HCSTechnical@parker.com](mailto:HCSTechnical@parker.com).

