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## HydraForce Relief Valve Selection Guide

	Type/Model No./Cavity	Pressure/Flow	Uses	Characteristics
	<b>DIRECT-ACTING POPPET</b> High pressure for demanding applications. Model: RVD50-20; Cav: 10-2	<b>5075 psi/350 bar</b> ; 30 gpm/114 lpm	<ul style="list-style-type: none"> <li>• Safety relief.</li> <li>• Low Leakage.</li> <li>• Very Low hysteresis.</li> <li>• Continuous duty.</li> <li>• Medium flow range.</li> <li>• Stable.</li> </ul>	<ul style="list-style-type: none"> <li>• Extremely fast response.</li> <li>• Very low pressure rise.</li> <li>• Smooth, quiet relief.</li> <li>• Contamination-tolerant.</li> <li>• Consistent pressure setting.</li> </ul>
	<b>DIRECT-ACTING POPPET</b> Model: RV08-20; Cav: 08-2 Model: RV58-20; Cav: 08-2 Model: RV10-20; Cav: 10-2 Model: RV08-29; Cav: 08-2	3600 psi/248 bar; 6 gpm/22 lpm <b>5000 psi/345 bar</b> ; 6 gpm/22 lpm 3300 psi/228 bar; 10 gpm/38 lpm 3500 psi/241 bar; 0.5 gpm/1.9 lpm	<ul style="list-style-type: none"> <li>• Safety relief.</li> <li>• Low flow range.</li> <li>• Low internal leakage.</li> <li>• RV58-20 may not be used for cross-over relief applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Inexpensive.</li> <li>• Fast response.</li> <li>• Contamination-tolerant.</li> <li>• Higher flow stability.</li> </ul>
	<b>DIFFERENTIAL-AREA POPPET</b> Model: RV08-22; Cav: 08-2 Model: RV10-22; Cav: 10-2 Model: RV50-22; Cav: 10-2	3600 psi/248 bar; 8 gpm/30 lpm 3500 psi/241 bar; 30 gpm/114 lpm <b>5000 psi/345 bar</b> ; 20 gpm/75 lpm	<ul style="list-style-type: none"> <li>• Medium flow range.</li> <li>• Low hysteresis.</li> <li>• Very low internal leakage.</li> <li>• Continuous duty.</li> <li>• RV50-22 may not be used in cross-over relief applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Extremely fast response.</li> <li>• Higher reseal resistance.</li> <li>• Low pressure rise.</li> <li>• Accurate.</li> </ul>
	<b>DIFFERENTIAL-AREA POPPET, REVERSE FLOW</b> Model: RV10-23; Cav: 10-2A	3500 psi/241 bar; 30 gpm/114 lpm	<ul style="list-style-type: none"> <li>• Low leakage.</li> <li>• Low hysteresis.</li> <li>• Medium flow range.</li> <li>• Continuous duty.</li> </ul>	<ul style="list-style-type: none"> <li>• Fast response.</li> <li>• Reseat at 90% of crack pressure.</li> <li>• Low pressure overshoot.</li> </ul>
	<b>PILOT-OPERATED POPPET</b> Model: RV10-24	—	— Obsolete —	—
	<b>PILOT-OPERATED SPOOL</b> Model: RV10-26; Cav: 10-2 Model: RV50-26; Cav: 10-2 Model: RV12-26; Cav: 12-2 Model: RV52-26; Cav: 12-2 Model: RV16-26; Cav: 16-2 Model: RV56-26; Cav: 16-2	3500 psi/241 bar; 30 gpm/114 lpm <b>5000 psi/345 bar</b> ; 30 gpm/114 lpm 3500 psi/241 bar; 40 gpm/150 lpm <b>5000 psi/345 bar</b> ; 40 gpm/150 lpm 3500 psi/241 bar; 80 gpm/303 lpm <b>5000 psi/345 bar</b> ; 100 gpm/379 lpm	<ul style="list-style-type: none"> <li>• High flow range.</li> <li>• Pilot leakage.</li> <li>• Continuous duty.</li> <li>• Low hysteresis.</li> <li>• No cross-over relief.</li> <li>• Varying load conditions.</li> </ul>	<ul style="list-style-type: none"> <li>• Very quiet.</li> <li>• Stable pressure relief.</li> <li>• Higher pressure rise.</li> <li>• Contamination tolerant.</li> <li>• Reseat at 90% of crack pressure.</li> </ul>
	<b>PILOT-OPERATED SPOOL, REVERSE CHECK</b> Model: RV10-28; Cav: 10-2A	3500 psi/241 bar; 30 gpm/114 lpm	<ul style="list-style-type: none"> <li>• Low leakage.</li> <li>• Low hysteresis.</li> <li>• No cross-over relief.</li> </ul>	<ul style="list-style-type: none"> <li>• Fast response.</li> <li>• Reverse free flow.</li> <li>• Low pressure overshoot.</li> </ul>
	<b>DIRECT-ACTING BI-DIRECTIONAL</b> Model: CR10-28; Cav: 10-2 Model: CR08-38; Cav: 08-3	3500 psi/240 bar; 16 gpm/60 lpm 3500 psi/241 bar; 10 gpm/38 lpm	<ul style="list-style-type: none"> <li>• Low flow range.</li> <li>• Low leakage.</li> <li>• Continuous duty.</li> <li>• Prohibits back pressure.</li> </ul>	<ul style="list-style-type: none"> <li>• Fast response.</li> <li>• Reseat at 90% of crack pressure.</li> </ul>
	<b>CROSS-OVER DIRECT-ACTING POPPET</b> Model: CRV08-20; Cav: N/A Model: CRV10-20; Cav: N/A	3300 psi/228 bar; 6 gpm/22 lpm 3500 psi/241 bar; 20 gpm/76 lpm	<ul style="list-style-type: none"> <li>• Protection from load-induced pressure surges.</li> <li>• Low flow range.</li> <li>• Low internal leakage.</li> </ul>	<ul style="list-style-type: none"> <li>• Extremely fast response.</li> <li>• Contamination tolerant.</li> <li>• Poor pressure-rise characteristics.</li> </ul>
	<b>CROSS-OVER DIFFERENTIAL-AREA POPPET</b> Model: CRV08-22; Cav: N/A Model: CRV10-22; Cav: N/A	2600 psi/180 bar; 8 gpm/30 lpm 3500 psi/241 bar; 20 gpm/76 lpm	<ul style="list-style-type: none"> <li>• Medium flow range.</li> <li>• Protection from load-induced pressure surges.</li> <li>• Low internal leakage.</li> </ul>	<ul style="list-style-type: none"> <li>• Extremely fast response.</li> <li>• Smooth response to pressure surges.</li> </ul>
	<b>THERMAL RELIEF</b> Model: TR04-B20; Cav: 04-B2	6000 psi/414 bar	<ul style="list-style-type: none"> <li>• Relief of pressure-induced thermal intensification.</li> <li>• Low Leakage.</li> </ul>	<ul style="list-style-type: none"> <li>• 10 drops/minute at 85% of pressure setting..</li> <li>• Withstands high pressure.</li> </ul>

### HYDRAFORCE, INC.

500 Barclay Blvd. • Lincolnshire, IL 60069 USA  
Ph: 847 793 2300 • Fx: 847 793 0086  
Web: www.hydraforce.com • E-Mail: sales@hydraforce.com

### HYDRAFORCE HYDRAULICS, LTD.

St. Stephens Street • Birmingham B6 4RG England  
Ph: 0121 333 1800 • Fx: 0121 333 1810  
Web: www.hydraforce.com • E-Mail: sales@hydraforce.com