


# MODEL NUMBERS

# Research® Control Valves

<p><b>1. FIRST 4 DIGITS ARE BASE MODEL NUMBER AND DESIGNATE VALVE SIZE</b></p> <p>1001 - 1/4" VALVE          1002 - 1/2" VALVE          1003- 3/4" VALVE          1004 - 1" VALVE          1005 - 1-1/2" VALVE          1007 - 2" VALVE</p> <p><b>2. NEXT 2 DIGITS DESIGNATE BODY TYPE</b></p> <p>GC - GLOBE CAST          GB - GLOBE BARSTOCK          AB - ANGLE BARSTOCK          AH - ANGLE HIGH PRESSURE (UNION)          GH - GLOBE HIGH PRESSURE (UNION)          TC - THREE-WAY CAST          TB - THREE-WAY BARSTOCK          GS - GLOBE SANITARY          AS - ANGLE SANITARY          GE - GLOBE, EXTENDED (CBX,HAST-C BELLOW)          GU-GLOBE CAST HIGH PRESSURE UNION</p>	<p>EG - EXTENSION NECK BONNET - GRAFOIL          EV - EXTENSION NECK BONNET - CV RING          HV - HEAVY DUTY GUIDE - CV RING PACKING          HG - HEAVY DUTY GUIDE - GRAFOIL          KV - H.D. GUIDED COOLING FIN - CV RING          KG - H.D. GUIDED COOLING FIN - GRAFOIL          MV - MEDIUM GUIDED TRIM W/CV RINGS          DV - DOUBLE CV RINGS (PTFE)          DK - DOUBLE CV RINGS (KALREZ)          MU - MANUAL, UNION,DISK PACKING</p> <p><b>SANITARY BONNETS:</b></p> <p>YO - CLAMP TYPE WITH "O" RING          UO - UNION TYPE WITH "O" RING          YD - CLAMP TYPE WITH DOUBLE "O" RINGS          UD - UNION TYPE WITH DOUBLE "O" RINGS          YP - CLAMP TYPE WITH PURGE PORT AND DOUBLE "O" RINGS          UP - UNION TYPE WITH PURGE PORT AND DOUBLE "O" RINGS          YR - SANITARY CLAMP TYPE WITH ROLLING DIAPHRAGM          YR - SANITARY CLAMP TYPE WITH ROLLING DIAPHRAGM</p>	<p>000 - LESS TRIM          APS - "A" =% SOFT SEAT</p> <p>NOTE: THESE ARE JUST EXAMPLES OF HOW THE INNERVALVE MODEL NUMBER IS CONSTRUCTED. A COMPLETE LIST OF ALL THE INNERVALVES WOULD BE TOO LARGE TO LIST.</p>														
<p><b>3. NEXT DIGIT DESIGNATES BODY END FITTING</b></p> <p>N - NPT          F - FLANGED (DOES NOT SPECIFY SIZE, RATING OR FACE FINISH)          S - SOCKET WELD (DOES NOT SPECIFY SIZE)          B - BUTT WELD (EXTENSION NIPPLES) [DOES NOT SPECIFY SIZE]          T - TUBE FITTINGS (E.G., SWAGELOK, AE, ETC)          W - WAFER (CLAMP BETWEEN FLANGES)          Y - CLAMP TYPE (SANITARY)          U - UNION TYPE (SANITARY)</p>	<p><b>6. NEXT 2 DIGITS DESIGNATE ACTUATOR TYPE</b></p> <p>OS - ATO STANDARD          CS - ATC STANDARD          OP - ATO-P WITH POSITIONER          CP - ATC-P WITH POSITIONER          OB-ATO WITH BUYOUT POSITIONER          CB-ATC WITH BUYOUT POSITIONER          OR - ATO REVERSIBLE          CR - ATC REVERSIBLE          O3 - ATO S/S TOPWORKS          C3 - ATC S/S TOPWORKS          OO - LESS TOPWORKS          MN - MANUAL          OE - EVA-1 SIGNAL TO OPEN          CE - EVA -1 SIGNAL TO CLOSE          O9 - EVA-100/200 SIGNAL TO OPEN          C9 - EVA-100/200 SIGNAL TO CLOSE          OH - ATO WITH HANDWHEEL          CH - ATC WITH HANDWHEEL          OT - ATO SIZE 35 (1.125" MOUNTING) WITHOUT POSITIONER          CT - ATC SIZE 35 (1.125" MOUNTING) WITHOUT POSITIONER          OW - ATO SIZE 35 (1.125" MOUNTING) WITH POSITIONER          CW - ATC SIZE 35 (1.125" MOUNTING) WITH POSITIONER          OZ - ATO SIZE 35 (1.0" MOUNTING) WITH POSITIONER [FOR BA-2500, BA-2030, ETC]          CZ - ATC SIZE 35 (1.0" MOUNTING) WITH POSITIONER [FOR BA-2500, BA-2030, ETC]</p>	<p><b>8. NEXT 2 DIGITS DESIGNATE TRIM MATERIAL (NORMALLY SAME AS BODY MATERIAL)</b></p> <p>16-DIN 1.4462/Duplex 2205          17-DIN 1.4571          36 - 316 S/S          3L - 316L S/S          ST - STELLITE (WITH 316 BASE MATERIAL)          S6 - STELLITE - 416 S/S          HB - HASTELLOY B (ALLOY B)          HC - HASTELLOY C (ALLOY C)          H2 - HASTELLOY C-22          HG - HASTELLOY G          3T - 316 S/S - TEFLON          3K - 316 S/S - KEL-F          TC - TUNGSTEN CARBIDE          S3 - STELLITE - 316 S/S          S2 - STELLITE - CARP. 20          SB - STELLITE - HAST. B          SC - STELLITE - HAST. C          TA - TANTALUM          TI - TITANIUM          KY - KYNAR          PC - PVC          NI - NICKEL          MN - MONEL          37 - 347 S/S          S4 - STELLITE &amp; 304          C2 - CARPENTER 20 (ALLOY 20)          TS - TITANIUM NITRIDE COATED STELLITE          SP - STELLITE &amp; PHOSPHOR BRONZE (P TRIM)          ZR - ZIRCONIUM</p> <p><b>NOTE: "X" IN ANY SPACE DENOTES "SPECIAL"</b></p>														
<p><b>4. NEXT 2 DIGITS DESIGNATE THE BODY-BONNET MATERIAL</b></p> <p>16-DIN 1.4462/Duplex 2205          17-DIN 1.4571/1.4581          36 - 316 S/S          3L - 316L S/S          34 - 304 S/S          37 - 347 S/S          BR - BRASS OR BRONZE          CS - CARBON STEEL          MN - MONEL          C2 - CARPENTER 20 (ALLOY 20)          HB - HASTELLOY B (ALLOY B)          HC - HASTELLOY C (ALLOY C)          H2 - HASTELLOY C-22          HG - HASTELLOY G          IN - INCONEL          TI - TITANIUM          TA - TANTALUM          NI - NICKEL          KY - KYNAR          PC - PVC          ZR - ZIRCONIUM</p>	<p><b>7. NEXT 3 DIGITS DESIGNATE TRIM SIZE &amp; CHARACTERISTIC</b></p> <p><b>"EXAMPLES ONLY"</b></p> <table border="0"> <tr> <td>ALN - "A" LINEAR</td> <td>ELN-"E" LINEAR</td> </tr> <tr> <td>BEP - "B" =%</td> <td>FEP-"F" =%</td> </tr> <tr> <td>CLN - "C" LINEAR</td> <td>GLN-"G" LINEAR</td> </tr> <tr> <td>DEP - "D" =%</td> <td>HEP-"H" =%</td> </tr> <tr> <td>60L - 6.0 LINEAR</td> <td>45L - 4.5 LINEAR</td> </tr> <tr> <td>50P = 5.0 =%</td> <td>35P = 3.5 =%</td> </tr> <tr> <td>P01 - "P-1"</td> <td>P15 - "P-15"</td> </tr> </table> <p>AQO - "A" QUICK OPEN - METAL TO METAL          AQS - "A" QUICK OPEN - SOFT SEAT          ALS - "A" LINEAR SOFT SEAT</p>	ALN - "A" LINEAR	ELN-"E" LINEAR	BEP - "B" =%	FEP-"F" =%	CLN - "C" LINEAR	GLN-"G" LINEAR	DEP - "D" =%	HEP-"H" =%	60L - 6.0 LINEAR	45L - 4.5 LINEAR	50P = 5.0 =%	35P = 3.5 =%	P01 - "P-1"	P15 - "P-15"	<p><b>ADDITIONAL MODEL NUMBERS</b></p> <p>1000 PARTS          1006 REPAIRS          1011 1/4" TRIM          1012 1/2" TRIM          1013 3/4" TRIM          1014 1" TRIM          1015 1-1/2" TRIM          1016 "P" TRIM          1017 TOPWORKS</p>
ALN - "A" LINEAR	ELN-"E" LINEAR															
BEP - "B" =%	FEP-"F" =%															
CLN - "C" LINEAR	GLN-"G" LINEAR															
DEP - "D" =%	HEP-"H" =%															
60L - 6.0 LINEAR	45L - 4.5 LINEAR															
50P = 5.0 =%	35P = 3.5 =%															
P01 - "P-1"	P15 - "P-15"															
<p><b>5. NEXT 2 DIGITS DESIGNATE BONNET STYLE AND PACKING</b></p> <p>SV - STANDARD BONNET - CV RING PACKING          SK - STANDARD BONNET - KALREZ CV RINGS          SG - STANDARD BONNET - GRAFOIL PACKING          SR - STANDARD BONNET - REVERSED CV RING          CV - COOLING FIN BONNET - CV RING PACKING          CG - COOLING FIN BONNET - GRAFOIL PACKING          CK - COOLING FIN BONNET - KALREZ CV RINGS          CM - COOLING FIN - MEDIUM GUIDED (PACKING NOT SPECIFIED, ASSUMES PTFE)          BV - BELLOWS BONNET - CV RING PACKING          BG - BELLOWS BONNET - GRAFOIL PACKING</p>	<p><b>EXAMPLE:</b></p> <p><b>1002 GC N 36 SV OS ALN 36</b></p> <p>1002 - 1/2" VALVE          GC - GLOBE CAST          N - NPT          36 - 316 S/S          SV - STD BONNET - CV RING PACKING          OS - ATO STANDARD          ALN - "A" LINEAR          36 - 316 S/S</p>	<p><b>QUESTIONS? Call: (918) 836-8411</b>  <b>Fax: (918) 832-9962</b>  <b>E-Mail: rcv@badgermeter.com</b></p> <p><b>BADGER METER, INC.</b></p> 														

Stellite® and Hastelloy® are registered trademarks of The Haynes Stellite Company.  
 Monel® is a registered trademark of Inco Alloys International, Inc.  
 Kalrez® is a registered trademark of DuPont Dow Elastomers.  
 Teflon® is a registered trademark of E. I. du Pont de Nemours and Company.  
 GRAFOIL® is a registered trademark of Graftech Inc.