



Description of Items

1. Valve Body
2. Inner Valve (trim set):
 - A. Upper stem: 3/16" \AA
 - B. Upper Seat: 3/4" = 3/4" hex; 1" = 15/16" hex
 - C. Lower Stem
 - D. Plug (throttling portion)
 - E. Lower Seat: 3/4" = 5/8" hex; 1" = 1-3/4" hex
3. Bonnet: 3/4" = 1-1/2 hex; 1" = 1-3/4" hex
4. Yoke Lock nut: 1-1/8" hex
5. Packing gland: 1/2" hex
6. Packing
7. Body-bonnet gasket
8. Packing follower
9. Packing adaptor

Dimensions (Inches)					
PS	A	B	C	D	Stroke
3/4"	3.37	2.94	3.90	.875	.562
1"	4.00	3.34	3.95	.875	.562

3/4" and 1" Research Control Valve
 Pressure vs. Temperature Rating for Valve Superstructure
 Excluding Packing or End Fittings
 See Note 1 below

Temp	316 S/S		Carbon Steel	
	3/4"	1"	3/4"	1"
100° F	1500	1500	1500	1500
200° F	1450	1450	1350	1350
300° F	1325	1325	1325	1325
400° F	1175	1175	1275	1275
500° F	1100	1100	1200	1200
600° F	1050	675	1100	1100
700° F	840	250	1075	1075
800° F	575			
3/4" Recommended Bonnet Torque = 290 ft/lbs.				
1" Recommended Bonnet Torque = 345 ft/lbs.				

INNERVALVE CHART

Valve Size	Trim Designation	Max Cv	Orifice		Nominal Rangeability	Max Pressure
			Dia. (in)	Area(sq in)		
1"	5.0 lwr seat	5.0	0.6250	0.3068	50:1	100 psi
	5.0 upr seat	5.0	0.6250	0.3068	50:1	100 psi
1"	4.0 lwr seat	4.0	0.6250	0.3068	50:1	100 psi
	4.0 upr seat	4.0	0.6250	0.3068	50:1	100 psi
3/4", 1"	3.5 lwr seat	3.5	0.5000	0.1963	50:1	100 psi
	3.5 upr seat	3.5	0.4375	0.1503	50:1	100 psi
3/4", 1"	A lwr seat	2.5	0.3750	.01104	40:1	100 psi
	A upr seat	2.5	0.4375	0.1503	40:1	100 psi
3/4", 1"	B lwr seat	2.0	0.3750	0.1104	40:1	100 psi
	B upr seat	2.0	.04375	0.1503	40:1	100 psi
3/4", 1"	C lwr seat	1.5	.02810	0.0620	40:1	100 psi
	C upr seat	1.5	0.4375	0.1503	40:1	100 psi
3/4", 1"	D lwr seat	0.8	0.2500	0.0491	40:1	150 psi
	D upr seat	0.8	0.4375	0.1503	40:1	150 psi
3/4", 1"	E lwr seat	0.5	0.2500	0.0491	40:1	150 psi
	E upr seat	0.5	0.4375	0.1503	40:1	150 psi
3/4", 1"	F lwr seat	0.3	0.1560	0.0191	30:1	300 psi
	F upr seat	0.3	0.4375	0.1503	30:1	300 psi
3/4", 1"	G lwr seat	0.2	0.1560	0.0191	30:1	300 psi
	G upr seat	0.2	0.4375	0.1503	30:1	300 psi
3/4", 1"	H lwr seat	0.13	0.1560	0.0191	30:1	300 psi
	H upr seat	0.13	0.4375	0.1503	30:1	300 psi
3/4", 1"	I lwr seat	0.08	0.1560	0.0191	30:1	300 psi
	I upr seat	0.08	0.4375	0.1503	30:1	300 psi
3/4", 1"	J lwr seat	0.05	0.1560	0.0191	30:1	300 psi
	J upr seat	0.05	0.4375	0.1503	30:1	300 psi

Note 1. The pressure/temperature ratings listed above are based on material cross sections at the joint between the body and bonnet where a gasketed screwed type bonnet is utilized. When the proper torque levels are used, the valve should not experience rupture of the joint or the material. The above listed torque levels were used in hydrostatic tests at the factory at 70 degrees F. at maximum body rating and were found to provide acceptable seating. Other factors such as high or cyclic temperatures, light process gases, or poor gasket surfaces can dictate the ability of a seal to be made. Under such conditions, the only way to be assured of tight sealing is to perform a test under the actual process conditions.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding bid obligation exists.

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