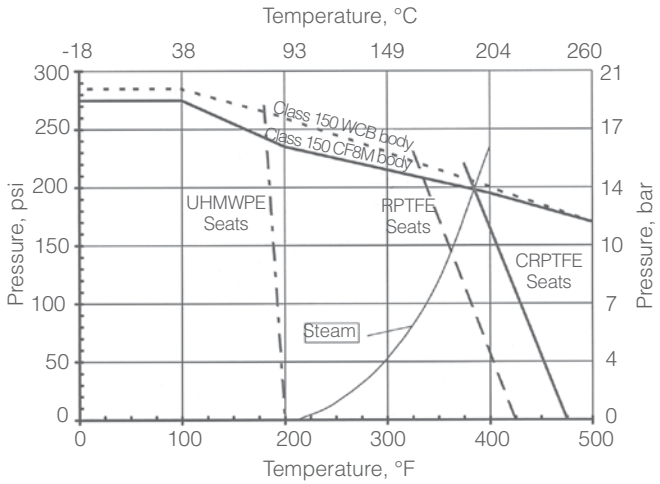
2000R-XXX-CS-F1 Series Reduced Port Valve
2000R-XXX-S6-F1 Series Reduced Port Valve

Quick Spec	
Product Scope	
Size Range	1" – 4", Reduced Port
Body Type	1-pc End Entry
Pressure Rating / Ends	ASME Class 150, Flanged Ends
Temperature Range / WSP	-20°F to 400°F / 150 psi Steam -29°C to 204°C / 10,3 bar Steam
Body	Stainless or Carbon Steel
Ball & Stem	Stainless Steel, Anti Static Design
Ball Seats	RPTFE
Stem Packing	Adjustable, Live Loaded PTFE
Body Seal / Thrust Washer	RPTFE / RPTFE (50% SST)
Operator / Mounting Pad	Manual Locking Lever / ISO 5211
Design Standards	
Design	ASME B16.34
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
Testing Standards	
Pressure Testing	API 598
Approvals	
PED 97/23/EC CRN: OC5539.5	
ISO 9001	
DIN EN10204-3.1	

Features

- Investment cast 1-piece unibody body construction
- ISO 5211 actuator mounting pad
- Blow-out proof stem
- Reinforced PTFE seats
- Adjustable, live loaded PTFE packing
- API 598 inspection and testing
- PED 97/23/EC; ISO 9001
- Locking lever operator
- Ammonia service available upon request

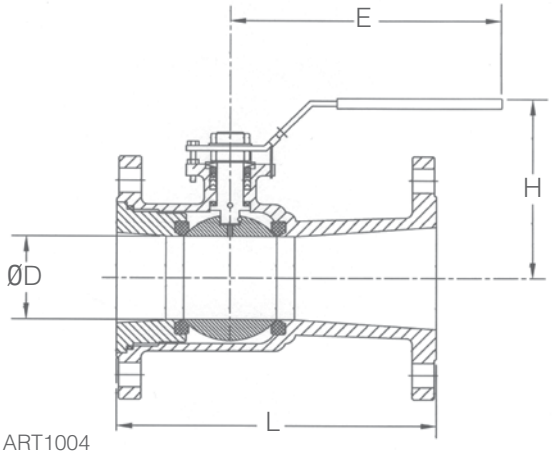
Pressure-Temperature Curves



Materials of Construction		
Part	Stainless Steel	Carbon Steel
Body	ASTM A351 CF8M	ASTM A216 WCB
End Insert	ASTM A351 CF8M	ASTM A216 WCB
Ball	ASTM A351 CF8M	
Stem	AISI 316	
Seat	RPTFE	
Seal, Body		
Antistatic Pin	AISI 316	
Thrust Washer	50% SS / 50% PTFE	
Seal Washer	PTFE	
Packing		
Gland, Packing	AISI 304	
Belleville Washer		
Stop Plate (3" - 4")		
Lock Saddle Washer		
Nut Gland		
Handle Adaptor (3" - 4")		
Handle (1" - 2")		
Handle (3" - 4")	Steel, Plated	
Lock Washer (1" - 2")	AISI 304	
Nut, Handle (1" - 2")		
Bolt, Handle (3" - 4")		
Bolt, Stop		
Cover, Handle	Vinyl	

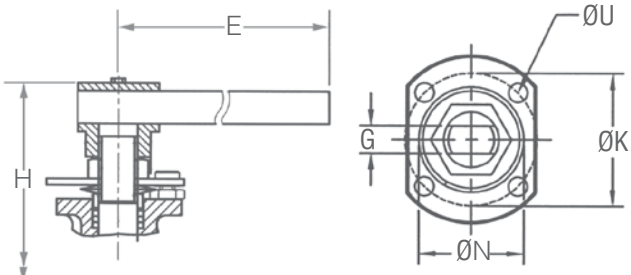
Technical Specifications		
Valve Size Inches	Operating Torque, in-lb @ 285 psig	Flow Coefficient, Cv
1"	110	33
1-1/2"	220	87
2"	380	125
3"	900	350
4"	1600	575

Technical Specifications, metric		
Valve Size NPS	Operating Torque, N-m @ 19,6 bar	Flow Coefficient, Kv
DN25	12	29
DN40	25	75
DN50	43	107
DN80	102	300
DN100	181	495

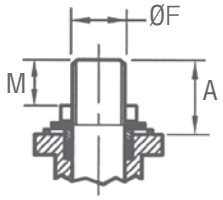


ART1004

1" – 2" 2000R



3" – 4" 2000R



Dimensions, Inches

Valve Size	2000R - 150 Series												
Inches	ØD	L	H	E	ISO 5211	ØU	K	G	ØF	A	M	ØN	Weight, lbs
1"	0.79	5.0	3.39	5.9	F04	M5	1.65	0.248	0.370	0.63	N/A	1.19	5.6
1-1/2"	1.26	6.5	4.09	7.1	F05	M6	1.97	0.315	0.429	0.83	0.61	1.38	9.0
2"	1.50	7.0	4.65	7.1	F05	M6	1.97	0.392	0.559	0.93	0.51	1.38	14.8
3"	2.56	8.0	6.14	15.0	F07	M8	2.76	0.669	0.882	1.84	0.92	—	33.5
4"	3.15	9.0	6.61	15.0	F07	M8	2.76	0.669	0.882	1.81	0.98	—	52.2

Dimensions, mm

Valve Size	2000R - 150 Series												
NPS	ØD	L	H	E	ISO 5211	ØU	K	G	ØF	A	M	ØN	Weight, kgs
DN25	20,0	127	86	150	F04	M5	42,0	6,30	9,4	16,0	N/A	30	2,6
DN40	32,0	165	104	180	F05	M6	50,0	8,00	10,9	21,1	15,4	35	4,1
DN50	38,0	178	118	180	F05	M6	50,0	9,96	14,2	23,6	13,0	35	6,7
DN80	65,0	203	156	381	F07	M8	70,0	17,0	22,4	46,7	23,4	—	15,2
DN100	80,0	29	168	381	F07	M8	70,0	17,0	22,4	46,0	24,9	—	23,7

How to Order

Valve Series	Port Design	Size	Body Material	End Connections	Packing/Seat	Ends	Handle
2000	R = Reduced Port	100 = 1"	CS = Carbon Steel	F1 = Class 150 FE	A = PTFE/PTFE	F = Class 150 FE	HL = Lever (std)
		150 = 1-1/2"	S6 = Stainless Steel		B = PTFE/RPTFE (std)		NN = None
		200 = 2"			C = PTFE/C-RPTFE		
		300 = 3"			G = Grafoil/C-RPTFE		
		400 = 4"			J = UHMW-PE/UHMW-PE		

Sample Ordering Schematic

2000	R	100	S6	F1	B	F	HL

Model		Size		Body Mat'l		End Connections		1	2	3	4	5	6	7	8	9	10	11	12

	Model Number
2000R	1 Piece Ball Valve

Size	
100	1"
150	1-1/2"
200	2"
250	2-1/2"
300	3"
400	4"

Body Material	
CS	Carbon Steel
S6	Stainless Steel

	End Connections
F1	Class 150 FE

1	Packing/Seat
A	PTFE/PTFE
B	PTFE/RPTFE (Standard)
C	PTFE/C-RPTFE
G	Grafoil/C-RPTFE
J	UHMW-PE/UHMW-PE

2	Ends
F	Class 150 FE

3&4	Operation		
HL	Lever		
NN	None		
P1	UT-0A-DA STD	S6	UT-3.5-SR STD
P2	UT-0-DA STD	S7	UT-4-SR STD
P3	UT-1-DA STD	SF	UT-4.5-SR STD
P4	UT-2-DA STD	S8	UT-5-SR STD
P5	UT-2.5-DA STD	S9	UT-6-SR STD
P6	UT-3-DA STD	M1	ER-1-2.5-4 110 VAC
P7	UT-3.5-DA STD	M2	ER-2-5-4 110 VAC
P8	UT-4-DA STD	M3	ER-3-5-4 110 VAC
S1	UT-0-SR STD	M8	ER-4-10-4 110 VAC
S2	UT-1-SR STD	M4	ER-6-15-4 110 VAC
S3	UT-2-SR STD	M5	ER-10-15-4 110 VAC
S4	UT-2.5-SR STD	M9	ER-15-30-4 110 VAC
S5	UT-3-SR-STD	MA	ER-20-12-4 110 VAC
ZZ	Non-Standard		

5&6	Actuator Pressure
60	60 psi
80	80 psi
NN	N/A (no pneumatic actuator)
ZZ	Non-Standard

7&8	Solenoid Feature	Act. Type
00	None	
3A	3W 8551-120VAC N4 UT-0/5	SR
3C	3W EF8551-120VAc N7 UT-0/5	SR
3J	3W 8317G35-120VAC N4 UT-0/2.5	SR
3M	3W 8321G1-120VAC N4 UT-3/5	SR
3Q	3W EF8317G35-120VAC N7 UT-0/2.5	SR
3R	3W EF8321G1-120VAC N7 UT-3/5	SR
4A	4W 8551-120VAC N4 UT-0A	DA
4B	4W 8551-120VAC N4 UT-0/5	DA
4D	4W EF8551-120VAC N7 UT-0A	DA
4E	4W EF8551-120VAC N7 UT0/5	DA
ZZ	Non-Standard	

9&10	Limit Swtich*
00	None
AA	Rotork SF01200-10UA7A3 (NEMA 4) to UT-0/3
AB	Rotork SF01200-10UA7A3 (NEMA 4) to UT-3.5/7
AC	Rotork SX01200-10UA7E3 (NEMA 7) to UT-0/3
AD	Rotork SX01200-10UA7E3 (NEMA 4) to UT-3.5/7
0Z	Non-Standard

*with (2) SPDT Mech. Switches

11&12	Fail Position
NN	Fail Position N/A (No "SR" Actuator)
01	Fail Closed
02	Fail Open