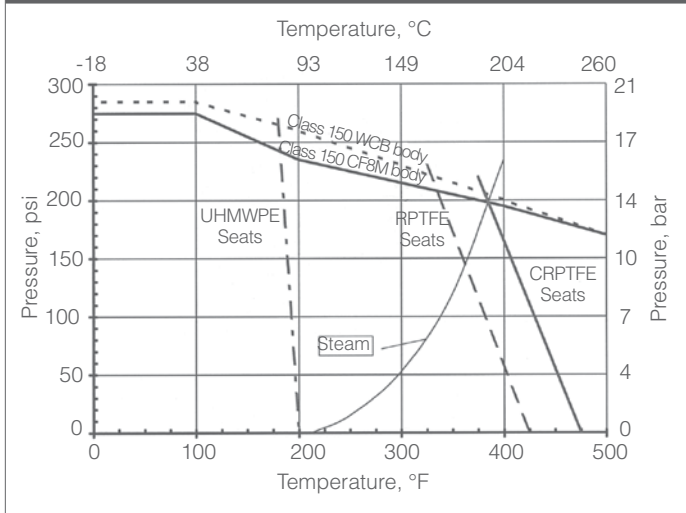




### Features

- 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



### 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

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

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

#### Quick Spec

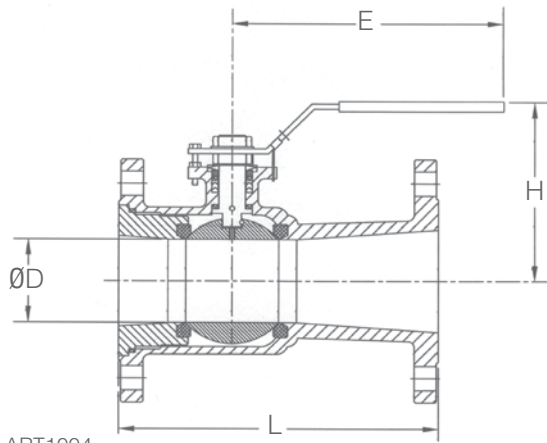
Product Scope	
Size Range	1" - 4", Reduced Port
Body Type	1-pc End Entry
Pressure Rating / Ends	ASME Class 150, Flanged Ends
Temperature Range / WSP	-20°F to 400°F / 150 psi Steam -29°C to 204°C / 10,3 bar Steam
Body	Stainless or Carbon Steel
Ball & Stem	Stainless Steel, Anti Static Design
Ball Seats	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	

#### Materials of Construction

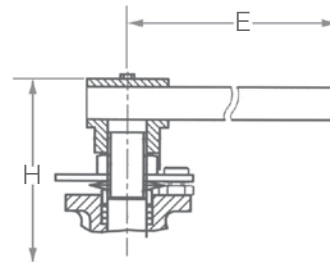
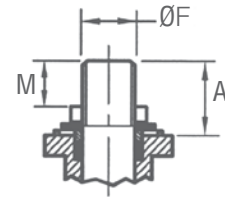
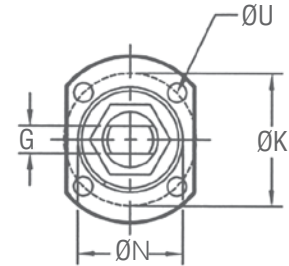
Part	Stainless Steel	Carbon Steel
Body	ASTM A351 CF8M	ASTM A216 WCB
End Insert	ASTM A351 CF8M	ASTM A216 WCB
Ball	ASTM A351 CF8M	
Stem	AISI 316	
Seat	RPTFE	
Seal, Body	AISI 316	
Antistatic Pin	AISI 316	
Thrust Washer	50% SS / 50% PTFE	
Seal Washer	PTFE	
Packing	PTFE	
Gland, Packing	AISI 304	
Belleville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

### 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												Weight, lbs
Inches	ØD	L	H	E	ISO 5211	ØU	K	G	ØF	A	M	ØN	
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												Weight, kgs
NPS	ØD	L	H	E	ISO 5211	ØU	K	G	ØF	A	M	ØN	
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	219	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
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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

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

Ends	
F	Class 150 FE

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		

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

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	

Limit Switch	
00	None
AA	LS FMYB-5120-N4 to UT-0/3
AB	LS FMYB-5120-N4 to UT-3.5/7
AC	LS AMYB-5120-N7 to UT-0/3
AD	LS AMYB-5120-N7 to UT-3.5/7
0Z	Non-Standard

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