



A-T Controls, Inc.

Valves for Water



NS SERIES Ball & Butterfly Valves

NSF/ANSI 61 & 372 Certified



UND. LAB. INC. CLFD
ANSI/NSF 61 also certified to ANSI/NSF 372
<5DZ0>





VALVE
NSF/ANSI 61
ALSO CERTIFIED TO
NSF/ANSI 372
<5DZ0>

Applications

- Water Treatment
- Potable Water Service
- Reverse Osmosis
- Desalination

A-T Controls' NS Series floating ball valves and NS series butterfly valves are certified to meet the requirements of NSF 61 (Drinking Water System Components- Health Affects) and NSF 372 (Drinking Water System Components- Lead Content). This means that NS Series valves are certified for use (by Underwriters Laboratory) in water treatment, water purification, potable water, and water distribution systems and conforms with North American lead content requirements for "lead-free" plumbing.

The NS Series valves include a tag showing that the valve assembly is certified to NSF 61 and NSF 372.

NS butterfly valves are available in sizes 2" – 24", and have Class 150 flanges. NS Series ball valves are available with threaded, socket weld, butt weld, Class 150, and Class 300 end connections.

NS Series Valves

Certified NSF 61 & 372 Valve Offering:

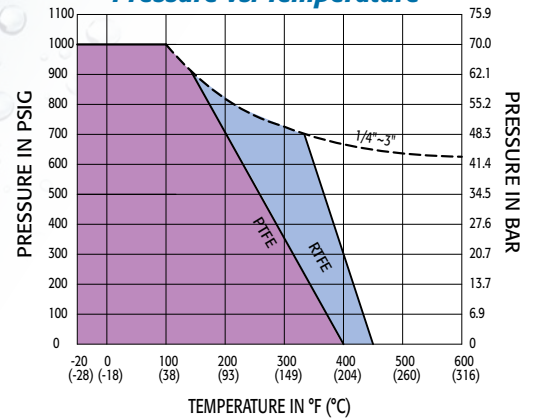
NS20	1/4" - 3"	1 pc. Regular Port Ball Valve, Threaded Ends, 1000 PSI, Stainless Steel
NS22	1/4" - 3"	2 pc. Full Port Ball Valve, Direct Mount, Threaded Ends, 1000 PSI, Stainless Steel
NS55	1/4" - 4"	3 pc. Full Port Ball Valve, Threaded, Socket Weld or Butt Weld, 800/1000 PSI, Stainless Steel
NS90-F1	1/2" - 4"	2 pc. Flanged Ball Valve, ANSI Class 150, Stainless Steel
NSD9-F1	6"	2 pc. Direct Mount, Flanged Ball Valve, ANSI Class 150, Stainless Steel
NSD9-F3	1/2" - 6"	2 pc. Direct Mount, Flanged Ball Valve, ANSI Class 300, Stainless Steel
NS Series Resilient Seated Butterfly	2" - 24"	NSF 61 & 372 and Dead-End Service, Wafer or Lug, ANSI Class 150, Stainless Steel or Ductile Iron body

2-PC FULL PORT | THREADED Series NS20



- Two piece design
- Available in stainless steel
- Full port 1000 psi
- Threaded ends only

Pressure vs. Temperature



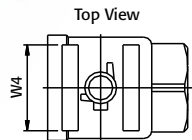
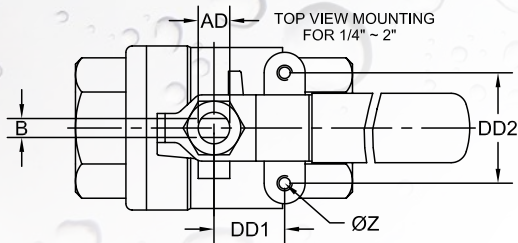
NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application.

SAMPLE PART #
NS20-TH-0200-XXX

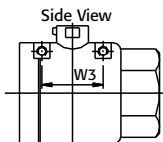
Valve Series
End Connection
Valve Size
Seat Material
Additional Special Designation
Special Designation



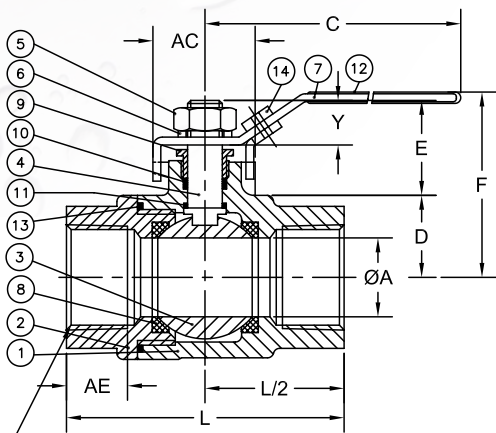
VALVE
NSF/ANSI 61
AND ALSO CERTIFIED TO
NSF/ANSI 372
<5DZ0>



Top Mounting Location for 2-1/2" - 3"



Side Mounting Location for 2-1/2" - 3"



STANDARD
NPT THREADS

MATERIALS LIST

NO.	PART NAME	QTY	MATERIAL
1	BODY	1	ASTM A351 GRADE CF8M
2	END CAP	1	ASTM A351 GRADE CF8M
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316
3	BALL	1	1/2" THRU 3" ASTM A351 GR CF8M
4	STEM	1	ASTM A276 SS316
5	STEM NUT	1	AISI 304
6	LOCKWASHER	1	AISI 304
7	HANDLE	1	AISI 304
8	SEAT	2	RTFE
9	GLAND NUT	1	AISI 304
10	V-RING PACKING	*	PTFE
11	THRUST WASHER	1	PTFE
12	HANDLE SLEEVE	1	VINYL
13	JOINT GASKET	1	PTFE
14	LOCK SADDLE	1	AISI 304

*Regular 1 pc stem packing is used for 1/4" and 3/8"; 1 set of V-Ring packing consists of 2 pcs. of V-Ring for 1/2" -3" models

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Y	Z	AC	AD	AE	DD1	DD2	W3	W4	LBS.
1/4"	0.45	0.197	3.94	0.59	0.88	1.97	2.17	0.39	10-24	1.03	0.31	0.59	0.500	1.122	N/A	N/A	0.51
3/8"	0.49	0.197	3.94	0.60	0.88	1.97	2.17	0.39	10-24	1.02	0.31	0.59	0.500	1.122	N/A	N/A	0.51
1/2"	0.59	0.256	5.12	0.71	1.01	2.36	2.56	0.43	10-24	1.18	0.37	0.63	0.500	1.122	N/A	N/A	0.84
3/4"	0.79	0.256	5.12	0.81	1.01	2.52	2.94	0.43	10-24	1.18	0.37	0.67	0.882	1.378	N/A	N/A	1.15
1"	0.98	0.315	6.50	0.99	1.24	2.80	3.46	0.53	1/4"-20	1.38	0.43	0.80	0.882	1.378	N/A	N/A	2.03
1-1/4"	1.26	0.315	6.50	1.20	1.24	3.07	4.02	0.53	1/4"-20	1.38	0.43	0.87	1.000	1.500	N/A	N/A	2.91
1-1/2"	1.50	0.382	7.48	1.58	1.38	3.39	4.33	0.61	1/4"-20	1.64	0.55	0.89	1.000	1.500	N/A	N/A	4.19
2"	1.97	0.382	7.48	1.83	1.20	3.74	4.92	0.61	1/4"-20	1.58	0.55	1.02	1.000	1.500	N/A	N/A	6.88
2-1/2"	2.56	0.472	9.84	2.41	2.13	5.12	6.32	0.96	1/4"-20	2.09	0.75	1.22	N/A	N/A	2.323	2.402	14.33
3"	3.15	0.472	9.84	2.92	2.17	5.83	7.01	0.96	1/4"-20	2.09	0.75	1.34	N/A	N/A	2.756	2.795	20.50

Series NS22 DIRECT MOUNT | 2-PC FULL PORT | THREADED

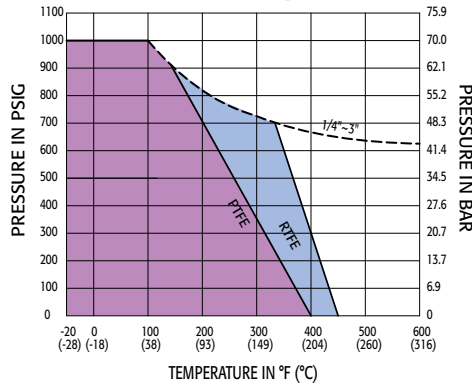


SAMPLE PART #

NS22-TH-0200-XXX

Valve Series
End Connection
Valve Size
Seat Material
Additional Special Designation
Special Designation

Pressure vs. Temperature



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.

SIZE	Cv
1/4"	7
3/8"	8
1/2"	15
3/4"	40
1"	70
1-1/4"	110
1-1/2"	250
2"	350
2-1/2"	600
3"	900

Break Away Torque for RTFE Seats

SIZE	IN-LBS.
1/4"	62
3/8"	62
1/2"	62
3/4"	71
1"	124
1-1/4"	159
1-1/2"	230
2"	319
2-1/2"	487
3"	770

NOTE: For other seat material, consult factory

STANDARDS

DESIGN
END CONNECTIONS
SULFIDE STRESS PROTECTION
MOUNTING
MARKING SYSTEM FOR VALVES
SAFETY INTEGRITY
MATERIAL CERTIFICATION
SAFETY

ANSI/ASME B16.34
ASME B1.20.1
NACE MR0175
ISO 5211
MSS SP-25, MSS SP-55
IEC 61508:2010; SIL 3
EN 10204-3.1 MTR
NSF/ANSI 61-2016
NSF/ANSI 372-2011
ISO 9001:2015

QUALITY ASSURANCE

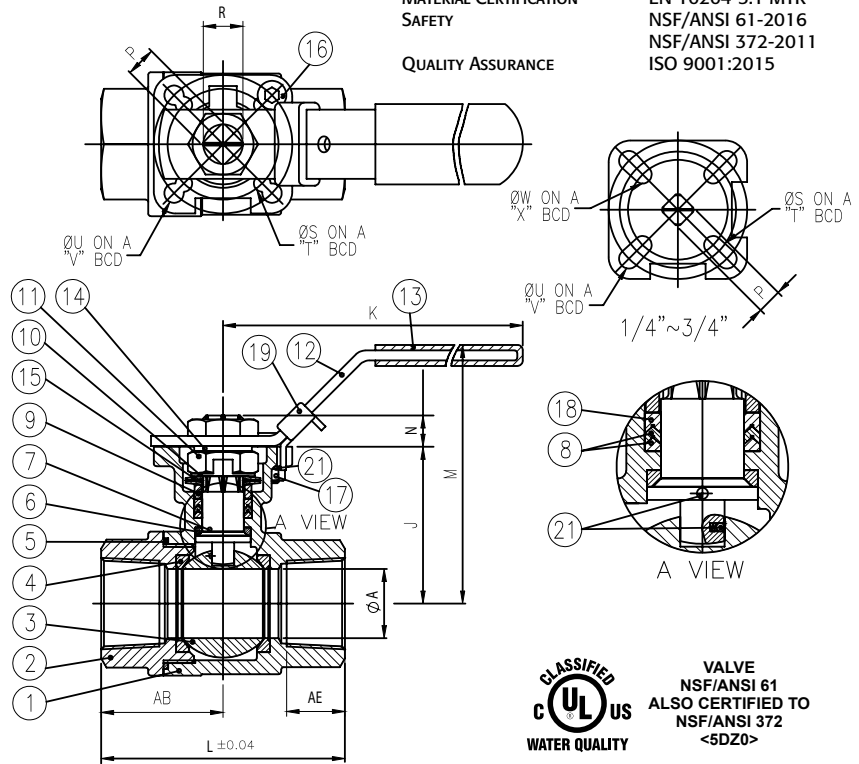
MATERIALS LIST

NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316	
3	BALL	1	1/2" THRU 3" ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM SEAL	1	RTFE	✓
7	STEM	1	ASTM A276 SS316	
8	GLAND PACKING	*	PTFE	✓
9	GLAND BUSHING	1	AISI 304	
10	LOCK SADDLE	1	AISI 304	
11	STEM NUT	2	AISI 304	
12	HANDLE	1	AISI 304	
13	HANDLE SLEEVE	1	VINYL	
14	STEM WASHER	1	AISI 304	
15	BELLEVILLE WASHER	2	AISI 301	
16	STOP BOLT	1	AISI 304	
17	STOP BOLT NUT	1	AISI 304	
18	GLAND PACKING	1	PTFE	✓
19	HANDLE LOCK	1	AISI 304	
20	HANDLE NUT	1	AISI 304	
21	ANTI-STATIC DEVICE	2	AISI 316	

* 1/4" - 1/2" - 1 PC
3/4" - 2" - 2 PCS
2-1/2" - 3" - 3 PCS

DIMENSIONS (IN)

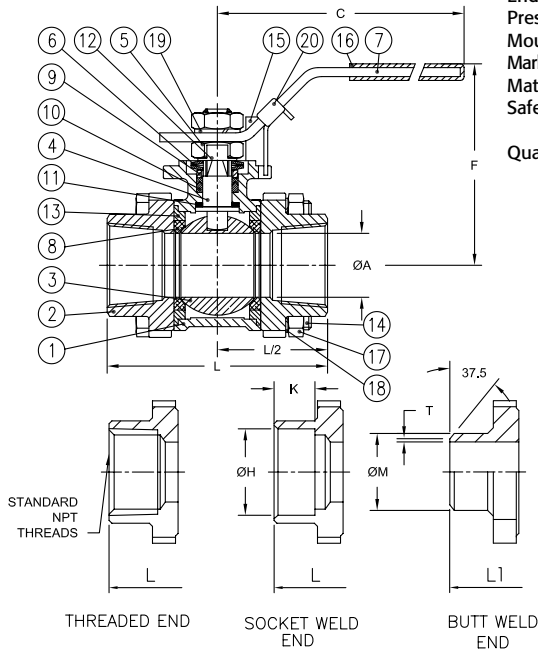
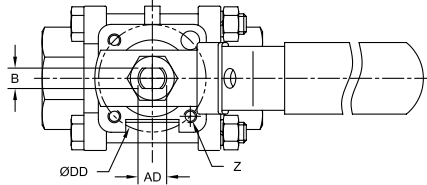
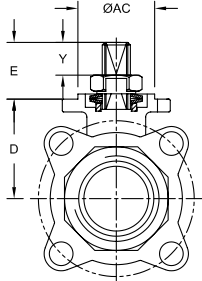
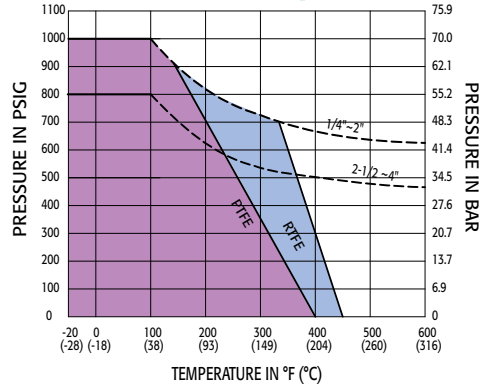
Size	Valve Dimensions							Actuator Mounting Dimensions										ISO 5211	(LBS)
	ØA	AB	AE	J	K	L	M	N	P	R	S	T	U	V	W	X			
1/4"	0.45	1.28	0.55	1.52	5.91	2.56	3.03	0.25	0.354	0.43	0.26	1.969	0.28	1.654	0.26	1.417	F03/F04/F05	1.23	
3/8"	0.49	1.28	0.55	1.52	5.91	2.56	3.03	0.25	0.354	0.43	0.26	1.969	0.28	1.654	0.26	1.417	F03/F04/F05	1.23	
1/2"	0.59	1.28	0.53	1.52	6.30	2.56	3.03	0.25	0.354	0.43	0.26	1.969	0.28	1.654	0.26	1.417	F03/F04/F05	1.23	
3/4"	0.79	1.47	0.61	1.81	6.30	2.94	3.35	0.27	0.354	0.43	0.26	1.969	0.28	1.654	0.26	1.417	F03/F04/F05	1.32	
1"	0.98	1.73	0.72	2.23	6.50	3.46	3.78	0.42	0.433	0.56	0.24	1.969	0.28	1.654	0.24	N/A	F04/F05	2.4	
1-1/4"	1.26	2.01	0.81	2.40	6.50	4.02	3.94	0.42	0.433	0.56	0.24	1.969	0.28	1.654	0.24	N/A	F04/F05	3.31	
1-1/2"	1.50	2.17	0.76	3.05	8.46	4.33	5.00	0.54	0.551	0.75	0.30	2.756	0.35	1.969	0.30	N/A	F05/F07	5.62	
2"	1.97	2.46	0.89	3.35	8.46	4.92	5.28	0.54	0.551	0.75	0.30	2.756	0.35	1.969	0.30	N/A	F05/F07	7.93	
2-1/2"	2.56	3.16	1.09	4.28	10.35	6.32	6.57	0.65	0.669	0.88	0.39	4.016	0.47	2.756	0.39	N/A	F07/F10	16.38	
3"	3.15	3.51	1.19	4.62	12.32	7.01	6.89	0.70	0.669	0.88	0.39	4.016	0.47	2.756	0.39	N/A	F07/F10	22.81	



VALVE
NSF/ANSI 61
ALSO CERTIFIED TO
NSF/ANSI 372
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3-PC FULL PORT | TH, SW, BW Series NS55

Pressure vs. Temperature



STANDARDS

Design
End Connections
Pressure Testing
Mounting
Marking System for Valves
Material Certification
Safety

Quality Assurance



ANSI/ASME B16.34
ASME B1.20.1, B16.11
API 598
ISO 5211
MSS SP-25
EN 10204-3.1 MTR
NSF/ANSI 61-2016
NSF/ANSI 372-2011
ISO 9001:2015

VALVE
NSF/ANSI 61
ALSO CERTIFIED TO
NSF/ANSI 372
<5DZ0>

SIZE	Cv
1/4"	7
3/8"	8
1/2"	15
3/4"	40
1"	70
1-1/4"	110
1-1/2"	250
2"	400
2-1/2"	600
3"	1100
4"	2000

Break Away Torque for RTFE Seats

SIZE	IN-LBS.
1/4"	62
3/8"	62
1/2"	62
3/4"	80
1"	141
1-1/4"	150
1-1/2"	257
2"	319
2-1/2"	522
3"	691
4"	1151

FOR OTHER SEAT MATERIAL CONSULT FACTORY



SAMPLE PART #
NS55-TH-0300-XXX

Valve Series
End Connection
Valve Size
Seat Material
Special Designation
Additional Special Designation

MATERIALS LIST

NO.	PART NAME	QTY.	STAINLESS STEEL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	TH END CAP	2	ASTM A351 GRADE CF8M	
2	BW/SW END CAP	2	ASTM A351 GRADE CF3M	
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316	
3	BALL	1	1/2" THRU 4" ASTM A351 GR CF8M	
4	STEM	1	ASTM A276 SS316	
5	STEM NUT	2	AISI 304	
6	BELLEVILLE WASHER	2	AISI 301	
7	HANDLE	1	AISI 304	✓
8	SEAT	2	RTFE or PTFE	
9	GLAND BUSHING	1	AISI 304	
10	GLAND PACKING	1 set	PTFE	✓
11	THRUST WASHER	1	RTFE	✓
12	LOCK SADDLE	1	AISI 304	
13	JOINT GASKET	2	PTFE	✓
14	BODY BOLT/STUD	*	ASTM A193 GRADE B8	
15	STOP BOLT	1	AISI 304	
16	HANDLE SLEEVE	1	VINYL	
17	BODY NUT	#	ASTM A194 GRADE 8	✓
18	LOCK WASHER	#	AISI 304	
19	STEM WASHER	1	AISI 304	
20	HANDLE LOCK	1	AISI 304	

* 1/4" THRU 3" QTY = 4 PCS
4" QTY = 6 PCS

1/4" THRU 2" QTY = 4 PCS
2-1/2" THRU 3" QTY = 8 PCS
4" QTY = 12 PCS

DIMENSIONS (IN)

Size	Valve Dimensions							Actuator Mounting Dimensions										ISO 5211	(LBS)
	A	B	C	D	E	F	H	K	L	L1	M	T	Y	Z	AC	AD	DD		
1/4"	0.46	0.256	5.12	1.15	0.78	2.95	0.56	0.39	2.51	2.47	0.64	0.06	0.29	M5	0.98	0.374	1.417	F03	1.4
3/8"	0.50	0.256	5.12	1.15	0.78	2.95	0.69	0.39	2.51	2.47	0.69	0.06	0.29	M5	0.98	0.374	1.417	F03	1.4
1/2"	0.59	0.256	5.12	1.15	0.78	2.95	0.86	0.39	2.59	2.59	0.89	0.06	0.29	M5	0.98	0.374	1.417	F03	1.4
3/4"	0.79	0.256	5.12	1.28	0.69	3.03	1.07	0.51	3.00	3.00	1.08	0.06	0.25	M5	0.98	0.374	1.417	F03	1.7
1"	0.98	0.315	6.30	1.53	0.81	3.35	1.33	0.51	3.39	3.39	1.34	0.06	0.48	M5	1.18	0.433	1.654	F04	2.4
1-1/4"	1.26	0.315	6.30	1.59	0.96	3.62	1.69	0.51	4.05	4.05	1.68	0.06	0.43	M5	1.18	0.433	1.654	F04	3.7
1-1/2"	1.50	0.382	7.28	1.82	1.22	4.02	1.93	0.51	4.70	4.70	1.91	0.06	0.54	M6	1.38	0.551	1.969	F05	5.5
2"	1.97	0.382	7.28	2.15	1.22	4.33	2.41	0.63	5.17	5.17	2.38	0.06	0.54	M6	1.38	0.551	1.969	F05	8.0
2-1/2"	2.56	0.472	10.24	2.81	1.68	5.91	2.91	0.63	6.46	6.46	3.00	0.08	0.91	M8	2.17	0.748	2.756	F07	16.2
3"	3.15	0.472	10.24	3.33	1.55	6.38	3.54	0.63	7.19	7.19	3.54	0.08	0.74	M10	2.76	0.748	4.016	F10	23.5
4"	3.94	0.591	11.42	4.19	2.06	7.48	4.55	0.79	9.28	9.30	4.57	0.14	1.35	M10	2.76	0.945	4.016	F10	43.7

Series NS90-F1 CLASS 150 | 1/2" - 2-1/2"

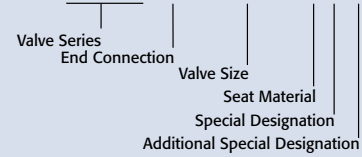


VALVE
NSF/ANSI 61
ALSO CERTIFIED TO
NSF/ANSI 372
<5DZ0>

VALVE SIZE	VALVE Cv
1/2"	15
3/4"	45
1"	85
1-1/2"	275
2"	460
2-1/2"	700
3"	1,100
4"	2,200

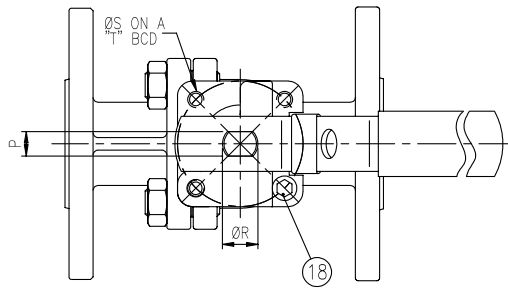
BREAKAWAY TORQUES	
SIZE	IN-LBS
1/2"	92
3/4"	127
1"	150
1-1/2"	311
2"	396
2-1/2"	657
3"	980
4"	1,700

SAMPLE PART # NS90-F1-0200-XXX



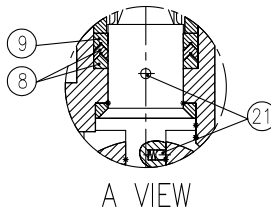
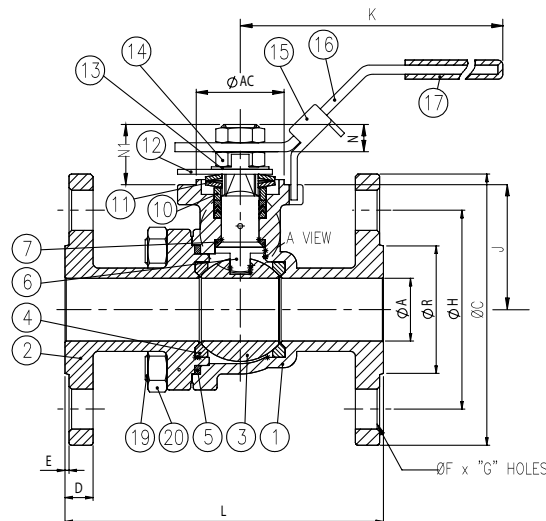
STANDARDS

DESIGN	ANSI/ASME B16.34
FACE TO FACE	ANSI/ASME B16.10
FLANGE DIMENSIONS	ANSI/ASME B16.5
PIPELINE VALVES	API 6D
PRESSURE TESTING	API 598
MOUNTING	ISO 5211
MARKING SYSTEM FOR VALVES	MSS SP-25
SAFETY INTEGRITY	IEC 61508:2010; SIL 3
MATERIAL CERTIFICATION	NSF/ANSI 61-2016
QUALITY ASSURANCE	NSF/ANSI 372-2011 EN 10204-3.1 MTR ISO 9001:2015



Series NS90-F1

- 2 pc. Flanged Ball Valve
- ANSI Class 150
- 1/2" - 2-1/2"



MATERIALS LIST (1/2" - 2-1/2")

NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM	1	ASTM A276 SS316	
7	STEM SEAL	1	RTFE	✓
8	GLAND PACKING	^	PTFE	✓
9	GLAND PACKING	1	PTFE	✓
10	GLAND BUSHING	1	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	
12	LOCKING PLATE	1	AISI 304	
13	LOCK SADDLE	1	AISI 304	
14	STEM NUT	2	AISI 304	
15	HANDLE LOCK	1	AISI 304	
16	HANDLE	1	AISI 304	
17	HANDLE SLEEVE	1	VINYL	
18	STOP BOLT	1	AISI 304	
19	BODY STUD	*	ASTM A193 GRADE B8	
20	BODY STUD NUT	*	ASTM A194 GRADE 8	
21	ANTI-STATIC DEVICE	2	AISI 316	

^ 1/2" - 1" - 2 PCS
1-1/2" - 2-1/2" - 3 PCS

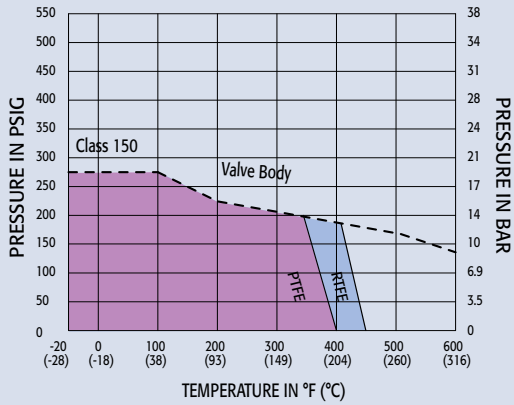
* 1/2" - 2" - 4 PCS
2-1/2" - 8 PCS

DIMENSIONS (IN)

Size	Valve Dimensions													Actuator Mounting Dimensions							ISO 5211	(LBS)
	ØA	ØB	ØC	D	E	F	G	H	J	K	L	M	ØAC	N	NI	P	R	S	T			
1/2"	0.59	1.38	3.50	0.44	0.06	0.63	4	2.38	1.36	6.69	4.26	3.15	1.18	0.36	0.91	0.315	0.44	M5	1.654	F04	3.7	
3/4"	0.79	1.69	3.88	0.44	0.06	0.63	4	2.75	1.65	6.69	4.62	3.43	1.18	0.40	0.91	0.315	0.44	M5	1.654	F04	4.6	
1"	0.98	2.00	4.25	0.56	0.06	0.63	4	3.12	1.96	8.15	5.00	4.06	1.38	0.32	0.93	0.382	0.56	M6	1.969	F05	6.8	
1-1/2"	1.50	2.88	5.00	0.75	0.06	0.63	4	3.88	3.08	10.28	6.50	6.02	2.17	0.58	1.37	0.472	0.75	M8	2.756	F07	13.6	
2"	1.97	3.62	6.00	0.75	0.06	0.75	4	4.75	3.40	10.28	7.02	6.38	2.17	0.58	1.37	0.472	0.75	M8	2.756	F07	19.2	
2-1/2"	2.56	4.12	7.00	0.75	0.06	0.75	4	5.50	3.83	10.28	7.48	6.81	2.17	0.58	1.37	0.472	0.75	M8	2.756	F07	30	

3" - 4" | CLASS 150 Series NS90-F1

Pressure vs. Temperature Chart



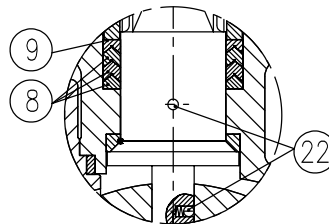
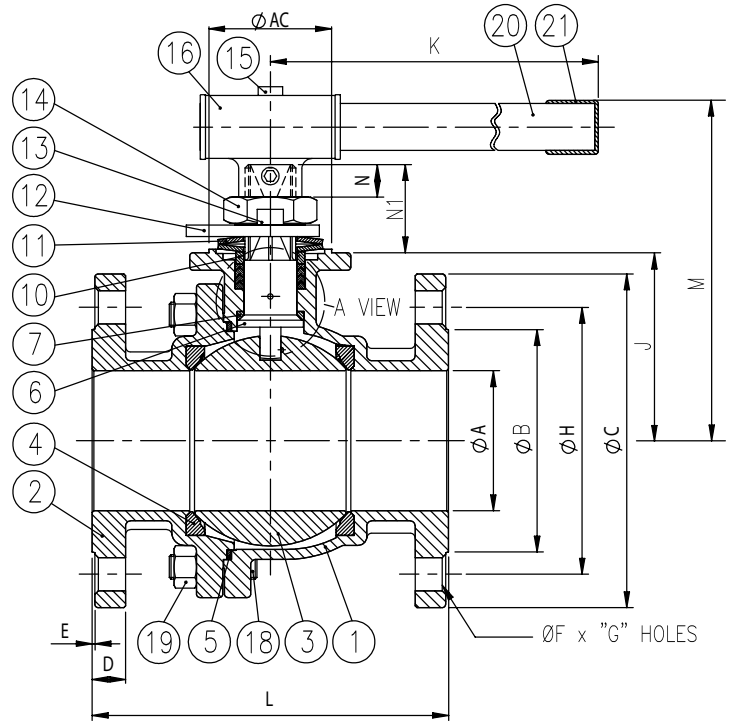
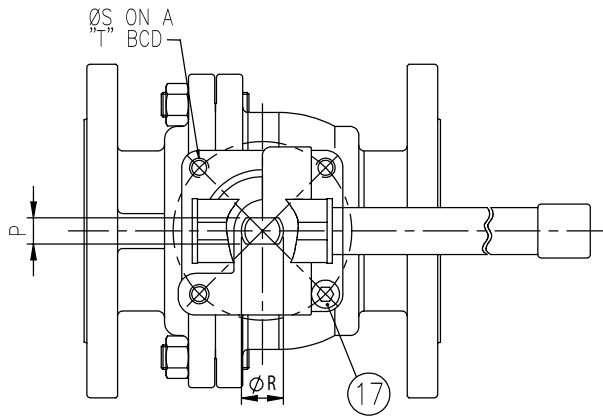
NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.

Series NS90-F1

- 2 pc. Flanged Ball Valve
- ANSI Class 150
- 3" - 4"

MATERIALS LIST (3" - 4")

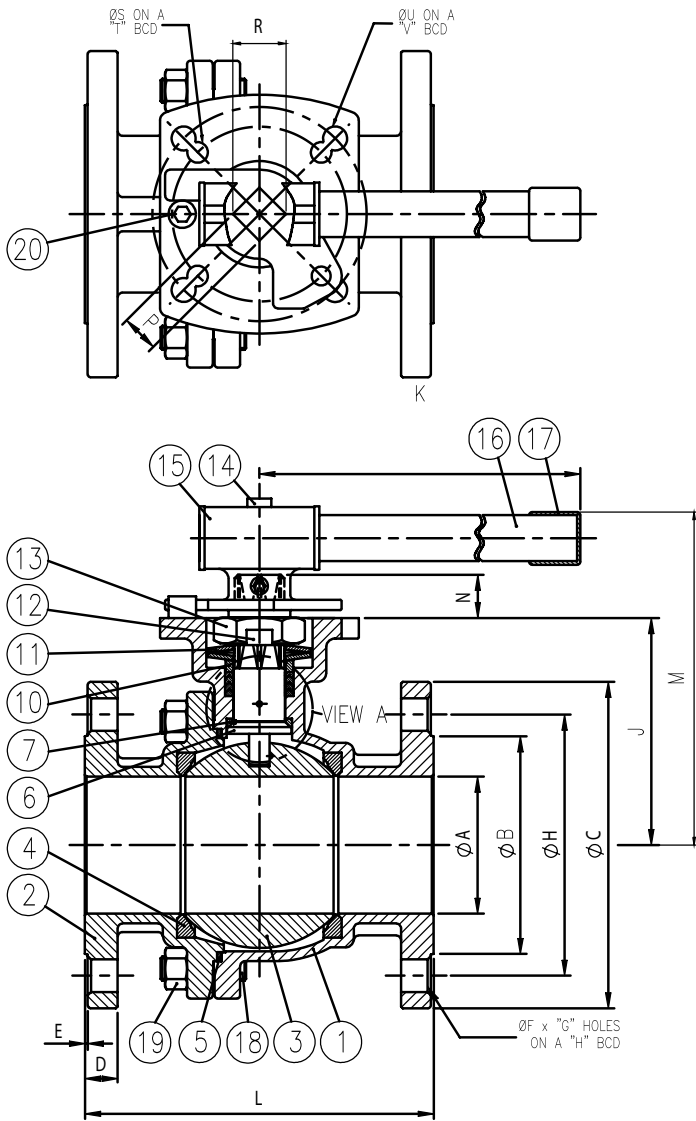
NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM	1	ASTM A276 SS316	
7	STEM SEAL	1	RTFE	✓
8	GLAND PACKING	3	PTFE	✓
9	GLAND PACKING	1	PTFE	✓
10	GLAND BUSHING	1	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	
12	LOCKING PLATE	1	AISI 304	
13	LOCK SADDLE	1	AISI 304	
14	STEM NUT	1	AISI 304	
15	HANDLE BOLT	2	AISI 304	
16	HANDLE HUB	1	AISI 304	
17	STOP PIN	1	AISI 304	
18	BODY BOLT	8	ASTM A193 GRADE B8	
19	BODY NUT	8	ASTM A194 GRADE 8	
20	HANDLE BAR	1	AISI 304	
21	HANDLE SLEEVE	1	VINYL	
22	ANTI-STATIC DEVICE	2	AISI 316	



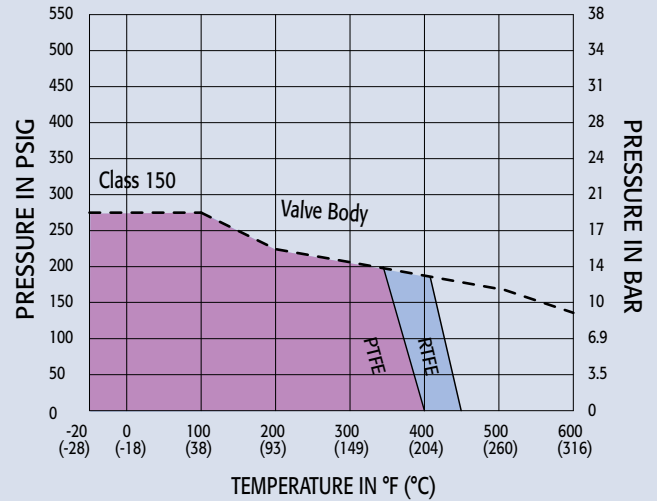
DIMENSIONS (IN)

Size	Valve Dimensions												Actuator Mounting Dimensions								ISO 5211	(LBS)
	ØA	ØB	ØC	D	E	F	G	H	J	K	L	M	ØAC	N	NI	P	R	S	T			
3"	3.15	5.00	7.50	0.75	0.06	0.75	4	6.00	4.23	14.37	8.01	6.95	2.76	0.93	1.81	0.591	0.94	M10	4.016	F10	41	
4"	3.94	6.19	9.00	0.94	0.06	0.75	8	7.50	4.82	14.37	9.00	7.52	2.76	0.93	1.81	0.591	0.94	M10	4.016	F10	65	

Series NSD9-F1 DIRECT MOUNT | CLASS 150 | 6"



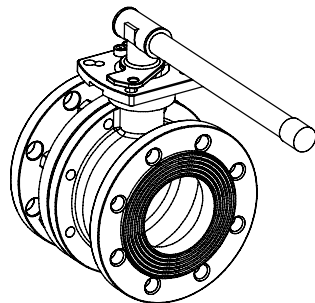
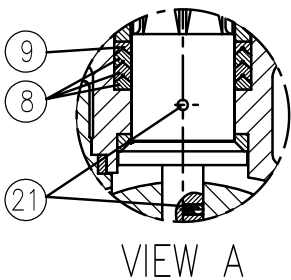
Pressure vs. Temperature Chart



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.

MATERIALS LIST (6")

NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM	1	ASTM A276 SS316	
7	STEM SEAL	1	RTFE	✓
8	GLAND PACKING	3	PTFE	✓
9	GLAND PACKING	1	PTFE	✓
10	GLAND BUSHING	1	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	
12	LOCK SADDLE	1	AISI 304	
13	STEM NUT	1	AISI 304	
14	HANDLE BOLT	2	AISI 304	
15	HANDLE HUB	1	AISI 304	
16	HANDLE BAR	1	CARBON STEEL	
17	STOP PIN	1	AISI 304	
18	HANDLE SLEEVE	1	VINYL	
19	BODY STUD	10	ASTM A193 GRADE B8	
20	BODY STUD NUT	10	ASTM A194 GRADE 8	
21	STOP BOLT	1	AISI 304	
22	ANTI-STATIC DEVICE	2	AISI 316	

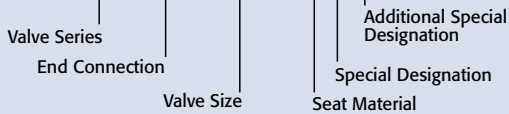


DIMENSIONS (IN)

Size	Valve Dimensions											Actuator Mounting Dimensions									
	ØA	ØB	ØC	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	ISO 5211	(LBS)
6"	5.91	8.50	11.00	1.00	0.06	0.87	8	9.50	8.28	27.76	15.50	12.50	1.12	1.063	1.41	0.55	4.921	0.71	5.512	F12/F14	145

6" | CLASS 150 | DIRECT MOUNT Series NSD9-F1

SAMPLE PART #
NSD9-F1-0600-XXX



VALVE
NSF/ANSI 61
ALSO CERTIFIED TO
NSF/ANSI 372
<5DZO>



STANDARDS

DESIGN	ANSI/ASME B16.34
FACE TO FACE	ANSI/ASME B16.10
FLANGE DIMENSIONS	ANSI/ASME B16.5
PIPELINE VALVES	API 6D
PRESSURE TESTING	API 598
MOUNTING	ISO 5211
MARKING SYSTEM FOR VALVES	MSS SP-25
SAFETY INTEGRITY	IEC 61508:2010; SIL 3
	NSF/ANSI 61-2016
	NSF/ANSI 372-2011
	EN 10204-3.1 MTR
	ISO 9001:2015

MATERIAL CERTIFICATION
QUALITY ASSURANCE

Break Away Torque for RTFE Seats

VALVE SIZE	VALVE Cv
6"	5,150

SIZE	IN-LBS.
6"	2,550

Series NSD9-F1

- 2 pc. Direct Mount Flanged Ball Valve
- ANSI Class 150
- 6"

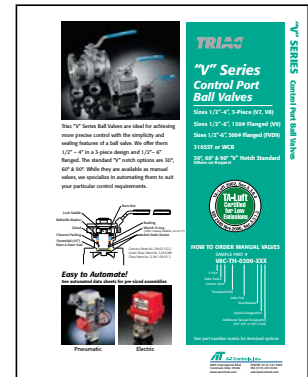
NSV9 Series:

The NS90 & NSD9 Series' are available with a **v-port ball option** (30°, 60°, or 90° V-notch). V-port valves offer better and more consistent control than traditional round ported ball valves. We offer this valve with the control port cast and machined into the ball, not in the seat. This allows for much better flow characteristics and eliminates the need to replace seats. The 30° option allows for finer tapered control throughout the valve rotation, and the 60° & 90° offer a larger Cv in addition to controlled flow.

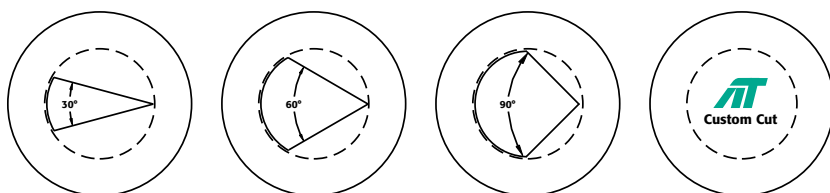
The RTFE seat is standard in the both the NSV9 and NSD9 Class 150 and Class 300.

Series NSV9

- 2 pc. Flanged Ball Valve
- V-Port
- ANSI Class 150 or 300
- 1/2" - 6"



* Refer to pg 3 of the V-Series Control Port Ball Valve Catalog for Cv values.



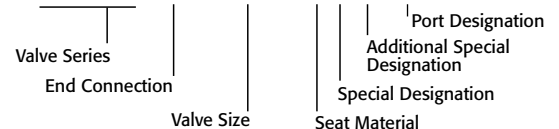
30° V-Port

60° V-Port

90° V-Port

Note: May be customized; call factory for flow analysis design.

SAMPLE PART #
NSV9-F1-0600-XXX-6



Series NSD9-F3 DIRECT MOUNT | CLASS 300 | 1/2" - 2-1/2"



SAMPLE PART #
NSD9-F3-0200-XXX

Valve Series | End Connection | Valve Size | Additional Special Designation | Special Designation | Seat Material

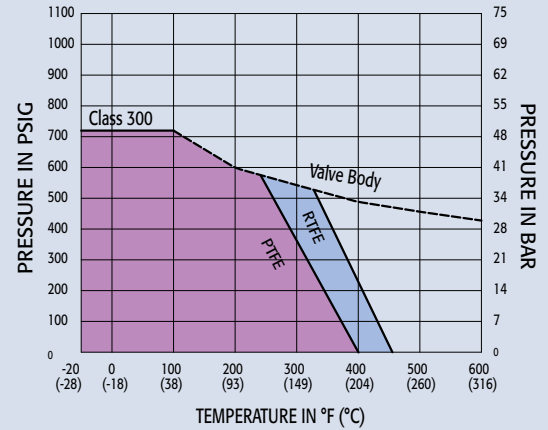
STANDARDS

Design
 Face to Face
 Flange Dimensions
 Pipeline Valves
 Pressure Testing
 Sulfide Stress Protection
 Safety Integrity

ANSI/ASME B16.34
 ANSI/ASME B16.10
 ANSI/ASME B16.5
 API 6D
 API 598
 NACE MR0175
 IEC 61508:2010; SIL 3
 NSF/ANSI 61-2016
 NSF/ANSI 372-2011
 ISO 5211
 MSS SP-25
 EN 10204-3.1 MTR
 ISO 9001:2015

Mounting
 Marking System for Valves
 Material Certification
 Quality Assurance

Pressure vs. Temperature Chart
 for Valves 1/2" to 6"



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.



VALVE
 NSF/ANSI 61
 ALSO CERTIFIED TO
 NSF/ANSI 372
 <SDZ0>

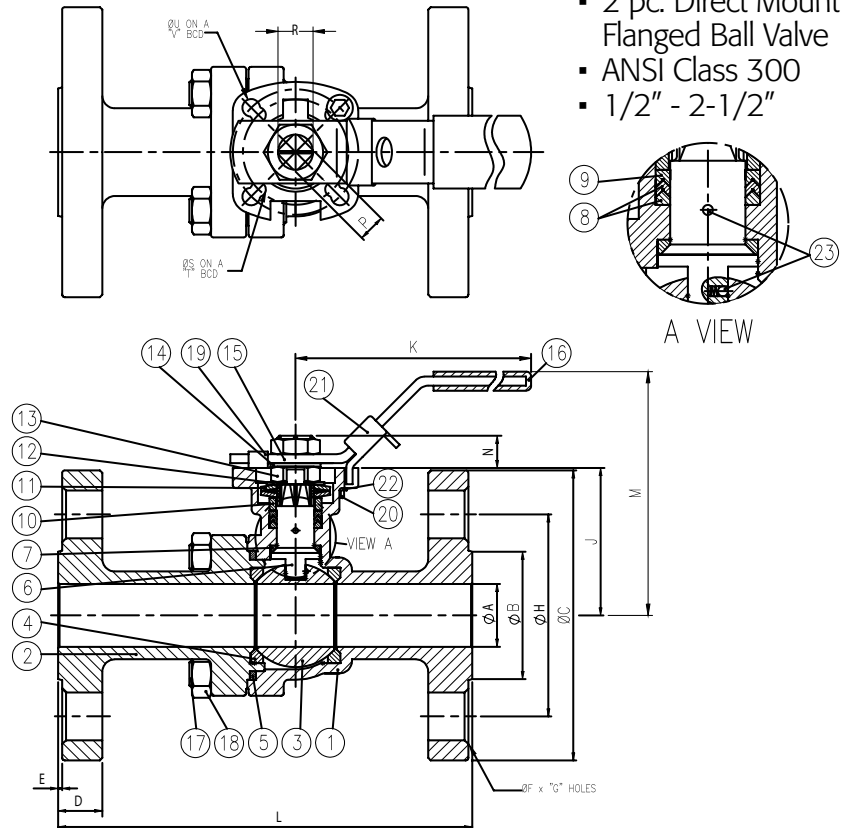
MATERIALS LIST (1/2" - 2-1/2")

NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM	1	ASTM A276 SS316	
7	STEM SEAL	1	RTFE	✓
8	GLAND PACKING	&	PTFE	✓
9	GLAND PACKING	1	PTFE	✓
10	GLAND BUSHING	1	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	
12	LOCK SADDLE	1	AISI 304	
13	STEM NUT	2	AISI 304	
14	STEM WASHER	1	AISI 304	
15	HANDLE	1	AISI 304	
16	HANDLE SLEEVE	1	VINYL	
17	BODY STUD	*	ASTM A193 GRADE B8	
18	BODY STUD NUT	*	ASTM A194 GRADE 8	
19	STOP BOLT	1	AISI 304	
20	STOP BOLT NUT	1	AISI 304	
21	HANDLE LOCK	1	AISI 304	
22	STOP BOLT WASHER	1	AISI 304	
23	ANTI-STATIC DEVICE	2	AISI 316	

* 1/2" - 2" - 4 PCS
 2-1/2" - 8 PCS
 & 1/2" - 1" - QTY 2
 1-1/2" - 2-1/2" - QTY 3

Series NSD9-F3

- 2 pc. Direct Mount Flanged Ball Valve
- ANSI Class 300
- 1/2" - 2-1/2"



DIMENSIONS (IN)

Size	Valve Dimensions											Actuator Mounting Dimensions								ISO 5211	(LBS)
	ØA	ØB	ØC	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V		
1/2"	0.59	1.38	3.75	0.56	0.06	0.63	4	2.62	1.92	6.50	5.50	3.33	0.39	0.433	0.55	0.26	1.654	0.28	1.969	F04/F05	5
3/4"	0.79	1.69	4.62	0.62	0.06	0.75	4	3.25	2.50	6.50	6.00	3.92	0.41	0.433	0.55	0.26	1.654	0.28	1.969	F04/F05	8
1"	0.98	2.00	4.88	0.69	0.06	0.75	4	3.50	2.50	6.50	6.50	3.92	0.41	0.433	0.55	0.26	1.654	0.28	1.969	F04/F05	10.5
1-1/2"	1.50	2.88	6.12	0.81	0.06	0.87	4	4.50	3.51	10.31	7.50	5.79	0.75	0.748	0.94	0.39	2.756	0.47	4.016	F07/F10	22
2"	1.97	1.26	6.50	0.88	0.06	0.75	8	5.00	3.80	10.31	8.50	6.09	0.75	0.748	0.94	0.39	2.756	0.47	4.016	F07/F10	28.5
2-1/2"	2.56	4.12	7.50	1.00	0.06	0.87	8	5.88	4.57	10.31	9.50	6.85	0.75	0.748	0.94	0.39	2.756	0.47	4.016	F07/F10	42

3" - 6" | CLASS 300 | DIRECT MOUNT Series NSD9-F3

Break Away Torque for RTFE Seats	
SIZE	IN-LBS
1/2"	125
3/4"	175
1"	220
1-1/2"	450
2"	525
2-1/2"	750
3"	1,400
4"	1,900
6"	3,050

VALVE SIZE	VALVE Cv
1/2"	15
3/4"	45
1"	85
1-1/2"	275
2"	450
2-1/2"	700
3"	1,100
4"	2,200
6"	5,150

Series NSD9-F3

- 2 pc. Direct Mount Flanged Ball Valve
- ANSI Class 300
- 3" - 6"

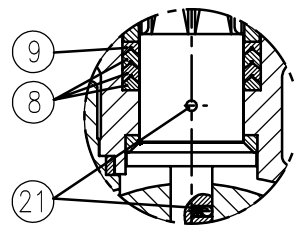
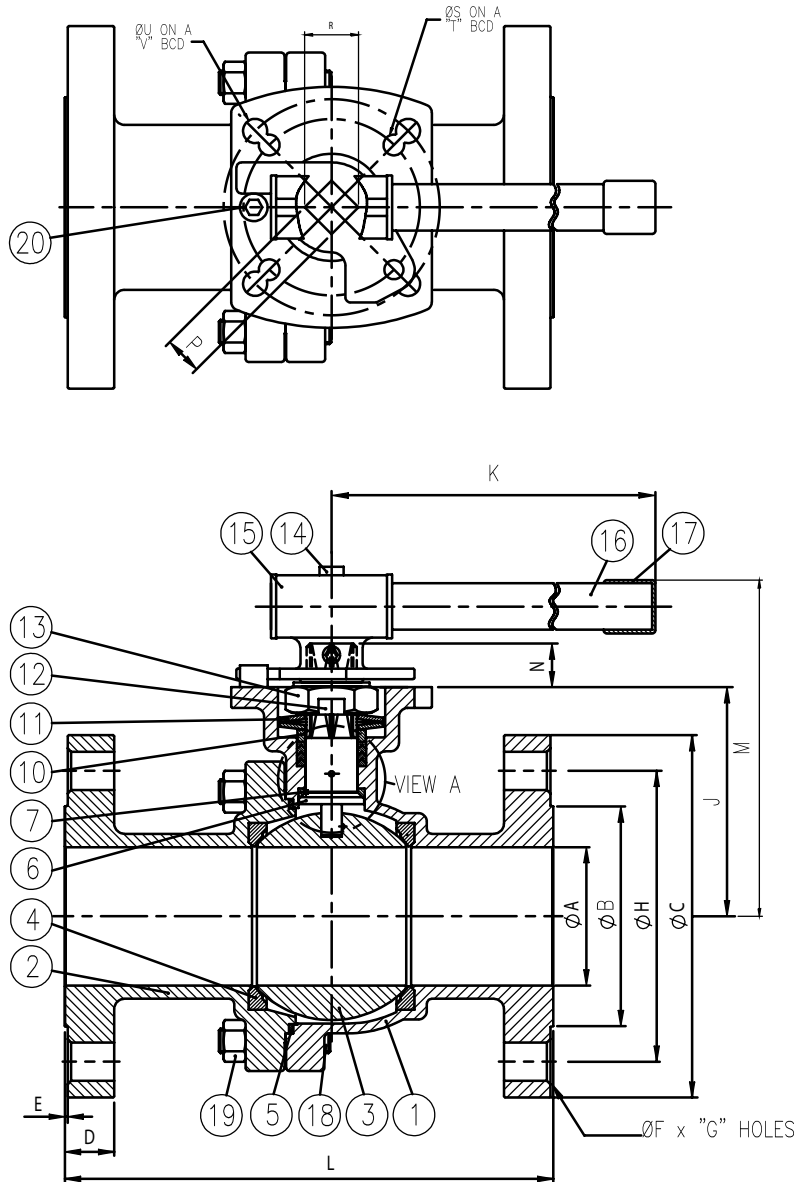
MATERIALS LIST (3" - 6")

NO.	PART NAME	QTY.	MATERIAL	Repair Kit
1	BODY	1	ASTM A351 GRADE CF8M	
2	END CAP	1	ASTM A351 GRADE CF8M	
3	BALL	1	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE or PTFE	✓
5	JOINT GASKET	1	PTFE	✓
6	STEM	1	ASTM A276 SS316	
7	STEM SEAL	1	RTFE	✓
8	GLAND PACKING	3	PTFE	✓
9	GLAND PACKING	1	PTFE	✓
10	GLAND BUSHING	1	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	
12	LOCK SADDLE	1	AISI 304	
13	STEM NUT	1	AISI 304	
14	HANDLE BOLT	2	AISI 304	
15	HANDLE HUB	1	AISI 304	
16	HANDLE BAR	1	3" - 4" - AISI 304 6" - CARBON STEEL	
17	STOP PIN	1	AISI 304	
18	HANDLE SLEEVE	1	VINYL	
19	BODY STUD	#	ASTM A193 GRADE B8	
20	BODY STUD NUT	#	ASTM A194 GRADE 8	
21	STOP BOLT	1	AISI 304	
22	ANTI-STATIC DEVICE	2	AISI 316	

3" - 4" - QTY 8
6" - QTY 10

DIMENSIONS (IN)

Size	Valve Dimensions												Actuator Mounting Dimensions								ISO 5211	(LBS)
	ØA	ØB	ØC	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V			
3"	3.15	5.00	8.25	1.12	0.06	0.87	8	6.62	5.22	14.37	11.12	8.05	0.91	0.866	1.18	0.47	4.016	0.55	4.921	F10/F12	59	
4"	3.94	6.19	10.00	1.25	0.06	0.87	8	7.88	6.18	14.37	12.00	9.00	0.91	0.866	1.18	0.47	4.016	0.55	4.921	F10/F12	96	
6"	5.91	8.50	12.50	1.44	0.06	0.87	12	10.62	8.28	27.76	15.87	12.50	1.12	1.063	1.41	0.55	4.921	0.71	5.512	F12/F14	213	



VIEW A

Series NS

NSF 61 & 372 rated, Dead-End Service
Manual and Automated Butterfly Valves
Lug or Wafer body, ANSI 125/150 flanges



- » Bi-directional, bubble tight shutoff for full-pressure differential
- » Vulcanized Molded rubber seat design
- » ASTM A395 DI & A351 CF8M body materials
- » Multiple disc materials available
- » Square stems and ISO 5211 mounting pad for direct mounting

STANDARDS

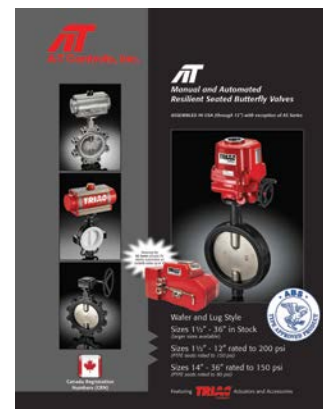
DESIGN	API 609, ASME B16.34, ASME B16.42, MSS SP-67
FACE TO FACE	API 609
END CONNECTION	ASME B16.5 (Class 150), PN 10/16 (Wafer only)
PRESSURE TESTING	API 598
MOUNTING	ISO 5211
MARKINGS	API 609, ASME B16.34, MSS SP-25
MATERIAL CERTIFICATION	EN 10204-3.1 MTR
QUALITY ASSURANCE	ISO 9001:2015

CERTIFICATIONS

DRINKING WATER SYSTEM COMPONENTS	NSF/ANSI 61 & 372 Health Effects & Lead Content
CANADA REGISTRATION	CRN OC20682.5
ABS APPROVAL	(Pending)
CE	(Pending)

Page Reference

- Page 12.....Product Details and Standards
- Page 13.....Bill of Materials 2"-14"
- Page 14.....Bill of Materials 16"-24"
- Page 15.....Dimensions
- Page 16.....Cv Values and Operating Torques and Pressure & Temperature Ratings
- Page 17.....Handles and Gear Operator Sizing
- Page 18.....Automation Capabilities
- Page 19.....How To Order: NS Series Part Number Matrix



* Refer to the Resilient Seated Butterfly Valve Catalog for NS Series Automated Package Sizing and other material options, when NSF 61 is not required.

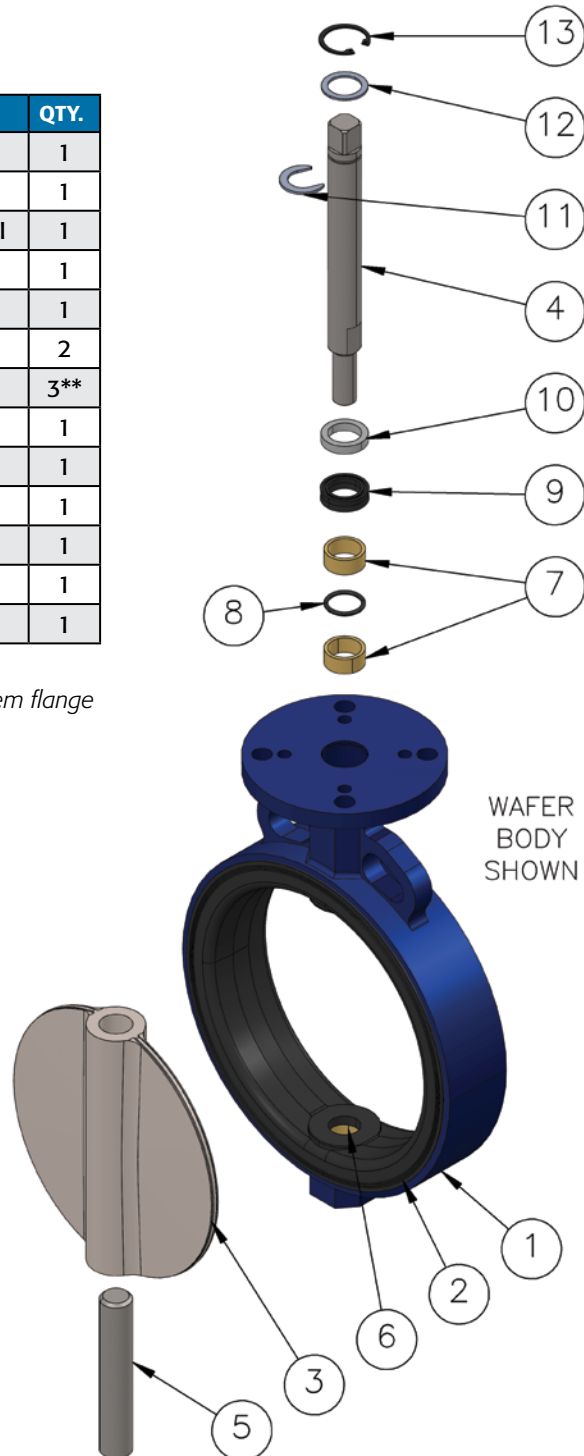
Bill of Materials | 2" - 14"

Bill of Materials (2"-14")

ITEM	DESCRIPTION	MATERIAL	QTY.
1	Body	ASTM A395 / A351 CF8M	1
2	Seat	EPDM	1
3	Disc	A351 CF8M / Nylon Coated DI	1
4	Upper Stem*	17-4 PH®	1
5	Lower Stem*	17-4 PH®	1
6	Flange Bushing	Brass	2
7	Bushing	Brass	3**
8	O-Ring	Buna-N	1
9	X-Ring	Buna-N	1
10	Bushing	PTFE	1
11	Stem Retainer	ASTM A276 304	1
12	Thrust Washer	ASTM A276 304	1
13	Snap Ring	SK7 Steel	1

*2"-3" valves have a one-piece stem

**one bushing(7) is not shown; it is located below lower stem flange bushing(6)



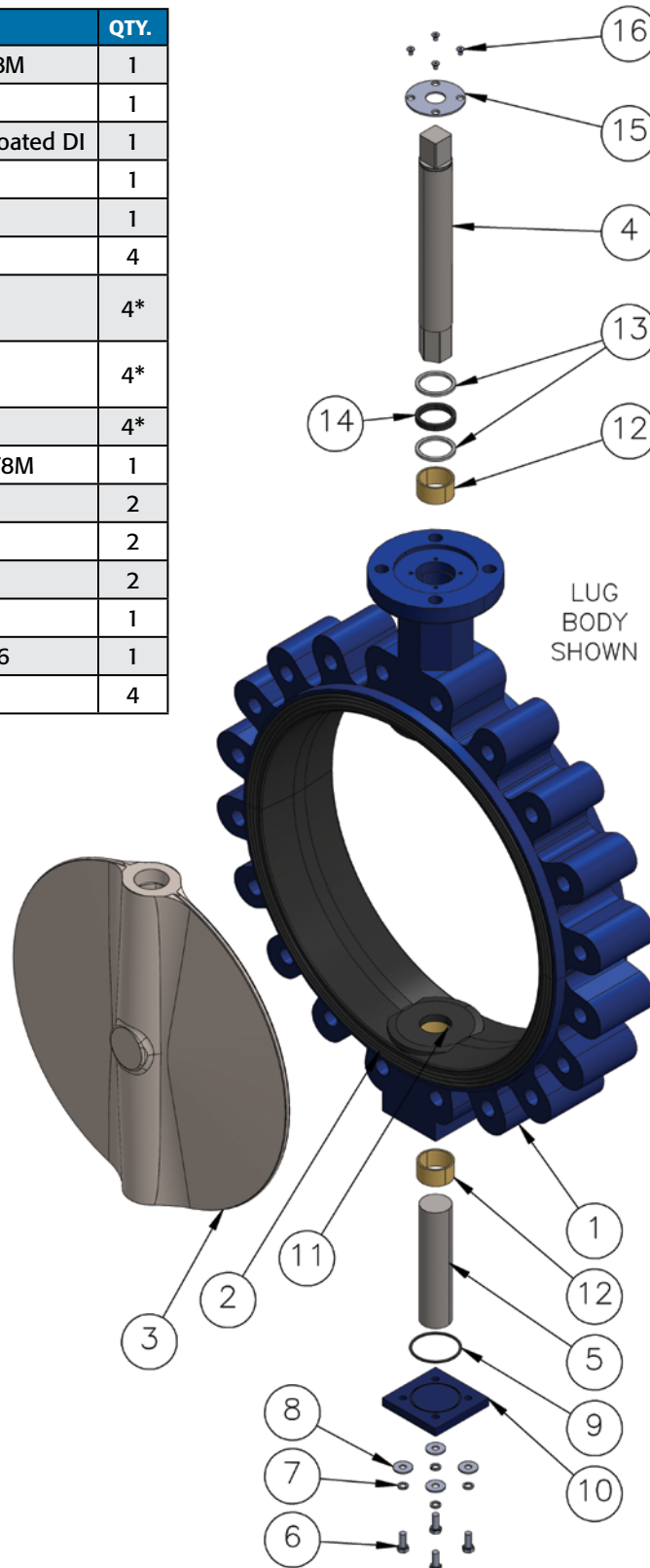
Series NS RESILIENT SEATED BUTTERFLY

Bill of Materials | 16" - 24"

Bill of Materials (16"-24")

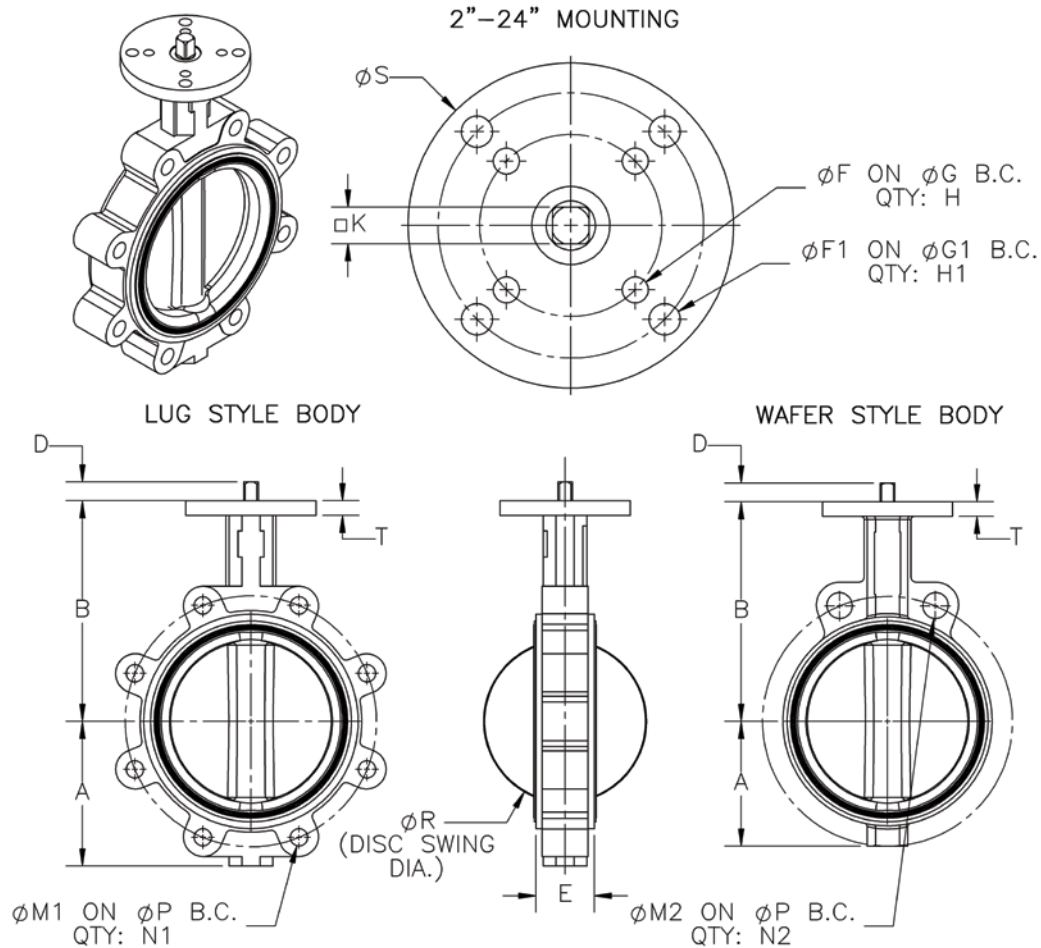
ITEM	DESCRIPTION	MATERIAL	QTY.
1	Body	ASTM A395 / A351 CF8M	1
2	Seat	EPDM	1
3	Disc	A351 CF8M / Nylon Coated DI	1
4	Upper Stem	17-4 PH®	1
5	Lower Stem	17-4 PH®	1
6	Bottom Cover Bolt	A2-70	4
7	Bottom Cover Lock Washer	ASTM A276 304	4*
8	Bottom Cover Flat Washer	ASTM A276 304	4*
9	Bottom Cover O-Ring	Buna-N	4*
10	Bottom Cover	ASTM A395 / A351 CF8M	1
11	Flange Bushing	Brass	2
12	Long Bushing	Brass	2
13	Short Bushing	PTFE	2
14	Packing	Buna-N	1
15	Gland	WCB / ASTM A276 316	1
16	Gland Bolt	ASTM A276 304	4

*16"-20" valves have quantity 2



RESILIENT SEATED BUTTERFLY **Series NS**

Dimensions | 2" - 24"



ANSI/ASME Class 150

Size	A		B		D	E	ØF	ØG	H	ØF1	ØG1	H1	K	ØM1	N1	ØM2			N2			ØP			ØR	ØS	T	Lug (lbs)	Wafer (lbs)
	Lug	Wafer	Lug	Wafer												Class 150	PN 10 (mm)	PN 16 (mm)	Class 150	PN 10	PN 16	Class 150	PN 10 (mm)	PN 16 (mm)					
2"	3.15	2.40	5.51	5.51	0.63	1.69	0.39	2.756 (F07)	4	-	-	-	0.354	5/8 - 11	4	0.79	19	19	2	2	2	4.75	125	125	2.07	3.54	0.51	8	6
2-1/2"	3.50	2.68	5.91	5.91	0.63	1.81	0.39	2.756 (F07)	4	-	-	-	0.354	5/8 - 11	4	0.79	19	19	2	2	2	5.50	145	145	2.53	3.54	0.51	9	7
3"	3.74	2.99	6.22	6.22	0.63	1.81	0.39	2.756 (F07)	4	-	-	-	0.354	5/8 - 11	4	0.79	19	19	2	2	2	6.00	160	160	3.10	3.54	0.51	11	8
4"	4.49	3.62	6.93	6.93	0.63	2.05	0.39	2.756 (F07)	4	-	-	-	0.433	5/8 - 11	8	0.79	19	19	2	2	2	7.50	180	180	4.09	3.54	0.55	19	12
5"	5.00	4.21	7.48	7.48	0.71	2.20	0.39	2.756 (F07)	4	-	-	-	0.551	3/4 - 10	8	0.91	19	19	2	2	2	8.50	210	210	4.85	3.54	0.55	25	16
6"	5.47	4.72	8.35	8.31	0.71	2.20	0.39	2.756 (F07)	4	0.47	4.016 (F10)	4	0.551	3/4 - 10	8	0.91	23	23	2	2	2	9.50	240	240	6.13	4.92	0.55	30	18
8"	6.85	5.94	9.29	9.25	0.71	2.36	0.47	4.016 (F10)	4	0.71	5.512 (F14)	4	0.669	3/4 - 10	8	0.91	23	23	2	2	2	11.75	295	295	7.97	6.89	0.63	45	31
10"	7.99	7.32	10.43	10.43	0.94	2.68	0.47	4.016 (F10)	4	0.71	5.512 (F14)	4	0.866	7/8 - 9	12	1.02	23	28	2	2	2	14.25	350	355	9.86	6.89	0.63	69	49
12"	9.53	8.31	12.01	12.01	0.94	3.07	0.47	4.016 (F10)	4	0.71	5.512 (F14)	4	0.866	7/8 - 9	12	1.02	23	28	2	2	2	17.00	400	410	11.87	6.89	0.71	102	69
14"	10.51	10.63	14.49	14.49	0.94	3.07	0.47	4.016 (F10)	4	0.71	5.512 (F14)	4	0.866	1 - 8	12	1.14	23	28	4	4	4	18.75	460	470	13.13	6.89	0.79	128	85
16"	13.10	13.10	15.75	15.75	1.42	4.02	0.71	5.512 (F14)	4	0.87	6.496 (F16)	4	1.063	1 - 8	16	1.14	28	31	4	4	4	21.25	515	525	15.34	8.27	0.87	210	139
18"	14.28	14.28	16.61	16.61	1.42	4.49	0.71	5.512 (F14)	4	0.87	6.496 (F16)	4	1.063	1 1/8 - 7	16	1.26	28	31	4	4	4	22.75	565	585	17.34	8.27	0.98	231	163
20"	15.26	15.26	17.91	17.40	1.42	5.00	0.71	5.512 (F14)	4	0.87	6.496 (F16)	4	1.417	1 1/8 - 7	20	1.26	28	34	4	4	4	25.00	620	650	19.35	8.27	1.06	344	231
24"	18.69	18.80	22.24	22.24	1.81	6.06	0.87	6.496 (F16)	4	-	-	-	1.417	1 1/4 - 7	20	1.38	31	37	4	4	4	29.50	725	770	23.33	8.27	1.26	485	412

- Unless otherwise specified, all dimensions are in inches.
- Face-To-Face dimensions (E) are across the body flats (metal-to-metal). Approximately 1/16" of the rubber seat protrudes from each side for flange sealing.
- 2" - 24" Lug valve end connections conform to ANSI B16.5 Class 150, Wafer valve end connections conform to ANSI B16.5 Class 150 and EN1092-2 PN 10/16.

A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice. See website for updates.

Series NS RESILIENT SEATED BUTTERFLY

Cv Values and Operating Torques

NS Series Butterfly Valve **Cv Values** (US-GPM @ 1 Δ P) - Rated Flow Coefficients

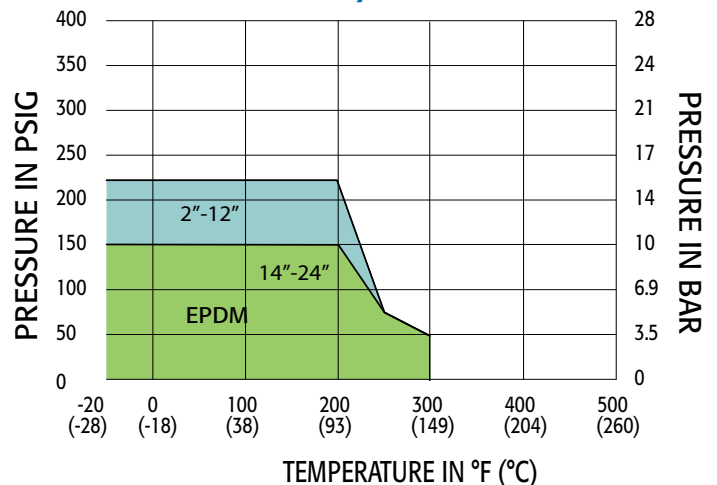
Valve Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2"	0.1	5	12	24	45	64	90	125	135
2-1/2"	1	8	20	37	65	98	144	204	220
3"	2	12	22	39	70	116	183	275	302
4"	3	17	36	78	139	230	364	546	600
5"	5	29	61	133	237	392	620	930	1,022
6"	8	45	95	205	366	605	958	1,437	1,579
8"	13	89	188	408	727	1,202	1,903	2,854	3,136
10"	21	151	320	694	1,237	2,047	3,240	4,859	5,340
12"	30	234	495	1,072	1,911	3,162	5,005	7,507	8,250
14"	40	338	715	1,549	2,761	4,568	7,230	10,844	11,917
16"	50	464	983	2,130	3,797	6,282	9,942	14,913	16,388
18"	72	615	1,302	2,822	5,028	8,320	13,168	19,752	21,705
20"	86	971	1,674	3,628	6,465	10,698	16,931	25,396	27,908
24"	256	1,222	2,587	5,605	9,989	16,528	26,157	39,236	43,116

Approximate Operating Torque (In-lbs)

SIZE	50 PSID	100 PSID	150 PSID	225 PSID
	WET			
2"	105	115	126	140
2-1/2"	112	134	138	154
3"	170	176	201	221
4"	275	303	345	365
5"	433	482	532	556
6"	680	754	886	1,065
8"	1,215	1,365	1,592	1,947
10"	1,903	2,204	2,532	2,920
12"	2,784	3,285	3,813	4,602
14"	3,658	4,212	4,872	-
16"	4,516	5,914	6,855	-
18"	5,832	7,758	9,524	-
20"	7,632	10,620	13,650	-
24"	12,340	15,340	19,870	-



Pressure vs. Temperature Chart for NS Butterfly Valves 2"-24"



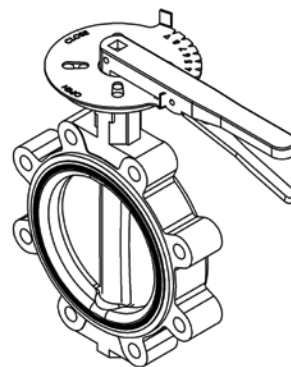
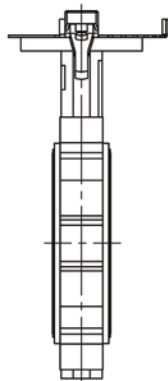
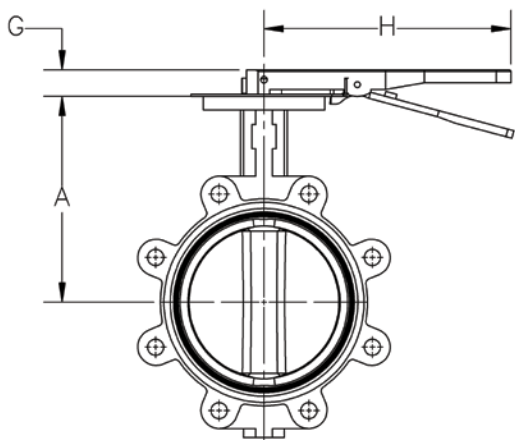
Pressure vs. Temperature

Seat Temperature Ratings

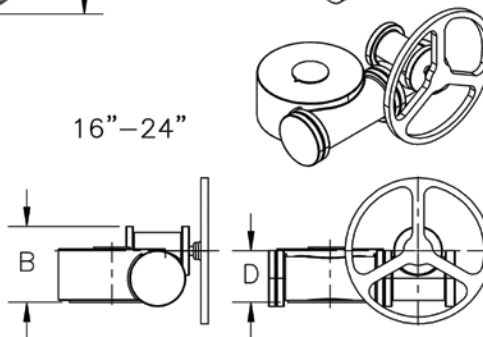
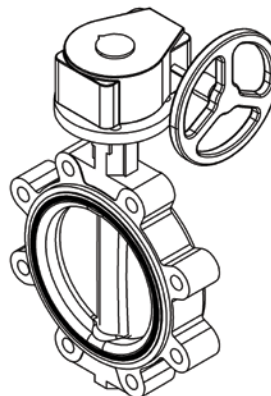
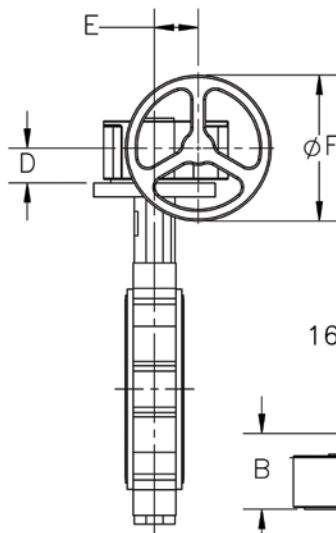
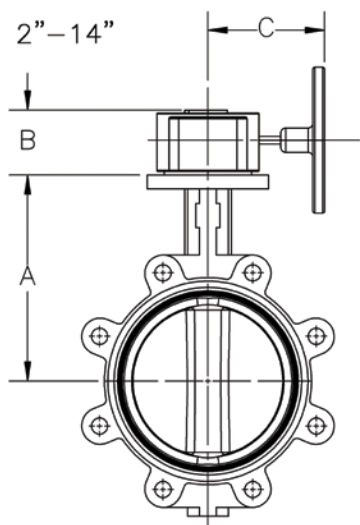
Seat	Temperature °F	2" - 12" Pressure (PSIG)	14" - 24" Pressure (PSIG)
EPDM	-20°	225 PSIG	150 PSIG
	100°	225 PSIG	150 PSIG
	200°	225 PSIG	150 PSIG
	250°	75 PSIG	75 PSIG
	300°	50 PSIG	50 PSIG

Handle and Gear Operator Sizing

HANDLE (2"–6" ONLY)



GEAR OPERATOR



SIZE	A		GEAR OPERATOR					HANDLE	
	Lug	Wafer	B	C	D	E	ØF	G	H
2"	5.51	5.51	2.64	4.74	1.42	1.78	6.00	1.05	10.25
2-1/2"	5.91	5.91							
3"	6.22	6.22							
4"	6.93	6.93							
5"	7.48	7.48							
6"	8.35	8.31							
8"	9.29	9.25	3.27	7.09	1.81	2.48	12.00	-	-
10"	10.43	10.43							
12"	12.01	12.01							
14"	14.49	14.49							
16"	15.75	15.75							
18"	16.61	16.61	6.14	7.80	4.17	7.13	12.00	-	-
20"	17.91	17.40							
24"	22.24	22.24							
								7.21	11.85

Automation Capabilities

Pneumatic Rack & Pinion Actuators



2R Series Rack & Pinion



S2 Series Stainless Steel Actuators



TRIAC® Automated Valve Assemblies

- ▶ Pneumatic or Electric
- ▶ Pre-engineered assemblies
- ▶ Pre-sized and pre-priced
- ▶ Double Acting or Spring Return
- ▶ Options
- ▶ Butterfly Valve packages

Electric Actuators



APL Limit Switches

- ▶ Aluminum or Stainless Steel housing
- ▶ Weatherproof/explosion proof construction
- ▶ Dome indicator
- ▶ Easy-Set cams
- ▶ Captive bolts
- ▶ Many switch options
- ▶ AS-I systems
- ▶ Can be mounted on manual valves

APL-910N
Stainless Steel
Type 4X, IP 67

APL-310N
CSA Approved,
Type 4X

APL-510N
CSA Approved
Class I, Div 1 & 2, Groups B, C, D

APL-210N
CSA Approved, Type 4X

See individual brochures for details & options

How to ORDER

Part Number Matrix for A-T Controls NSF/ANSI 61 & 372 Certified Valves

A-T Controls NS Series BALL Valves

1 Valve Series			
NS20	2pc. Full Port 1000 WOG, NSF 61 & 372 certified		
NS22	2pc. Direct Mount 1000 WOG, Full Port, NSF 61 & 372 certified		
NS55	3pc. 1000/800 WOG, Full Port, NSF 61 & 372 certified		
NS90	2pc. Flanged Full Port, NSF 61 & 372 certified		
NSV9	2pc. Flanged Full Port, V-Port, NSF 61 & 372 certified		
NSD9	Direct Mount Flanged, NSF 61 & 372 certified		
2 End Connection			
TH	NPT Ends		
SW	Socket Weld Ends		
BW	Butt Weld Ends		
F1	150# Flanged Ends		
F3	300# Flanged Ends		
TS	NPT x Socket Weld		
3 Valve Size			
0025	1/4"	0300	3"
0038	3/8"	0400	4"
0050	1/2"	0500	5"
0075	3/4"	0600	6"
0100	1"		
0125	1-1/4"		
0150	1-1/2"		
0200	2"		
0250	2-1/2"		
4 Seat Material			
X	Reinforced TFE Seats (RTFE)		
P	Virgin TFE (PTFE)		
5 Special Designations			
X	No Specials		
G	Gear Operator		
O	Oval Handle (available on some)		
S	Spring Return Handle (Direct Mount only)		
6 Additional Specials			
X	No Specials		
7 Ball Designation (NSV9 only)			
3	30° V-Port Ball		
6	60° V-Port Ball		
9	90° V-Port Ball		

EXAMPLES:

NS55-TH-0200-XXX
Series 55 Full Port Ball Valve with 2" NPT threaded ends, 316SST Body and Trim, 1000 psi WOG, F05 B.C., RTFE Seats/Stem Seal, PTFE Joint Gaskets/Packing. Assembled grease free. Certified for NSF/ANSI 61-2016 and NSF/ANSI 372-2011 for up to 60°C service (UL Certification Mark tag included).

NSD9-F3-0100-XXX

1" Series D9 Class 300 Full Port Ball Valve. 316SST Body and Trim, F04/F05 B.C., RTFE Seats/Stem Seal, PTFE Joint Gasket/Packing. Assembled grease free with no stem o-ring. Certified for NSF/ANSI 61-2016 and NSF/ANSI 372-2011 for up to 60°C service (UL Certification Mark tag included).

HOW TO ORDER MANUAL NS SERIES BALL VALVES			
1	2	3	4 5 6
↓	↓	↓	↓↓↓
NS55 - TH - 0200 - XXX			

REPAIR KIT EXAMPLES:

NS55-RK-0200-PTFE

Series NS55 2" Repair Kit containing: (2) PTFE Seats, (1) set of PTFE packing, (1) RTFE Stem Seal, (2) PTFE Joint Gaskets

NS55-RK-0200-RTFE

Series NS55 2" Repair Kit containing: (2) RTFE seats, (1) set of PTFE packing, (1) RTFE Stem Seal, (2) PTFE Joint Gaskets

A-T Controls NS Series BUTTERFLY Valves

1 Valve Series			
NS	A-T NSF 61 & 372 / Dead-End Service Butterfly Valve		
2 Body Material			
blank	A351 CF8M (No Designation)		
P	A395 Ductile Iron (Standard)		
3 End Connection			
L1	125/150# Lug		
W1	125/150# Wafer		
4 Valve Size			
0200	2"	1400	14"
0250	2-1/2"	1600	16"
0300	3"	1800	18"
0400	4"	2000	20"
0500	5"	2400	24"
0600	6"		
0800	8"		
1000	10"		
1200	12"		
5 Seat Material/Style			
N	EPDM (NSF 61 & 372 and Dead-End Service)		
6 Disc Material/Style			
N	Nylon Coated Ductile Iron (NSF 61 & 372)		
S	A351 CF8M (NSF 61 & 372)		
7 Stem Bushing			
R	PTFE / Brass		
8 Operator Designation			
X	Bare Stem		
S	Stainless Steel 10 position Handle		
L	Locking Handle -10 position (up to 6")		
G	Gear Operator		
9 Stem			
A	17-4 PH® Stem		

EXAMPLE:

NS-L1-0400-NSR-XA

NSF 61 & 372 Approved 4" NS Series RSBFV, Class 125/150 Lug Style, A351 CF8M Body, EPDM Dead-End Service Seat, A351 CF8M Disc, PTFE Stem Bushing, 17-4 PH Square Stem, Bare Stem.

HOW TO ORDER MANUAL NS SERIES BUTTERFLY VALVES			
1 2	- 3	- 4	- 5 6 7 - 8 9
↓↓	↓	↓	↓↓↓ ↓↓
NS - L1 - 0400 - NSR - X A			



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