



Pneumatic Double Acting

Automated Ball Valve Package

Series D9
ANSI Class 150
Flanged Ball Valve
Direct Mount

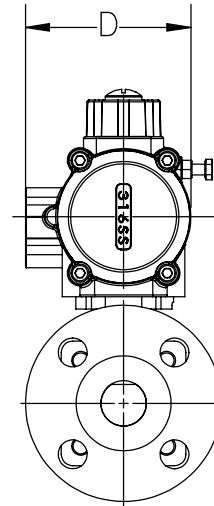
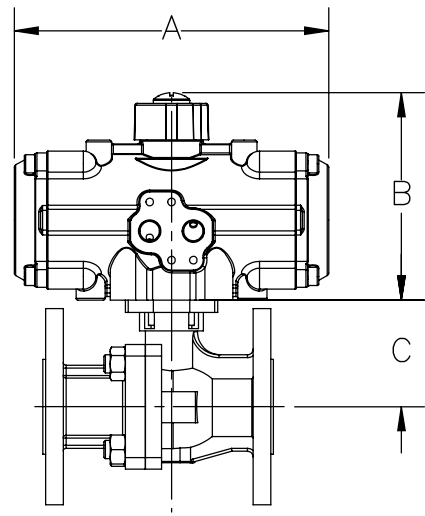
Sizes 1/2"-6" stock
316SST Body, Ball, & Stem
ANSI Class 150
Full Port Design
Superior Live Loaded
Packing System
Blowout Proof Stem w/ Dual
Anti-Static Devices
RTFE Seats Standard
Pyramidal Stem Seal Design

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	EN 10204-3.1 MTR
QUALITY ASSURANCE	ISO 9001:2015



Direct Mount to TRIAC® S2 Series
Stainless Steel Actuator



DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	5.75	3.88	1.84	3.07	15
3/4"	5.75	3.88	2.02	3.07	45
1"	6.81	4.49	2.31	3.58	85
1-1/2"	8.03	5.30	3.51	4.42	275
2"	8.03	5.30	3.80	4.42	450
2-1/2"	8.03	5.30	4.57	4.42	700
3"	10.63	6.32	5.22	5.31	1,100
4"	11.89	7.14	6.18	6.12	2,200

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES D9 Split Body "Painless Stainless"

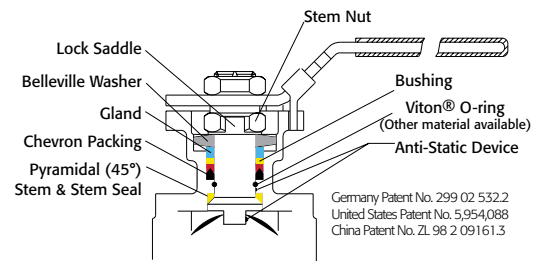


SIZED FOR 80 psi AIR SUPPLY

SIZE	MODEL
1/2"	D9-F1-050/S21D-XX
3/4"	D9-F1-075/S21D-XX
1"	D9-F1-100/S22D-XX
1-1/2"	D9-F1-150/S23D-XX
2"	D9-F1-200/S23D-XX
2-1/2"	D9-F1-250/S23D-XX
3"	D9-F1-300/S24D-XX
4"	D9-F1-400/S25D-XX

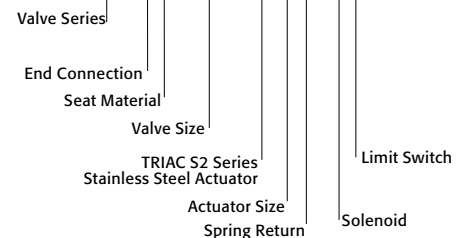
SIZED FOR 60 psi AIR SUPPLY

SIZE	MODEL
1/2"	D9-F1-050/S21D-XX
3/4"	D9-F1-075/S21D-XX
1"	D9-F1-100/S22D-XX
1-1/2"	D9-F1-150/S23D-XX
2"	D9-F1-200/S23D-XX
2-1/2"	D9-F1-250/S24D-XX
3"	D9-F1-300/S24D-XX
4"	D9-F1-400/S25D-XX



Germany Patent No. 299 02 532.2
United States Patent No. 5,954,088
China Patent No. ZL 98 2 09161.3

SAMPLE PART # D9-F1-300/S24D-XX



See valve part number matrix for complete part number and options.

OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
Type 4 Aluminum Solenoid	(A)	Type 4 Aluminum Limit Switch (2) spdt	(A)
Type 7 Aluminum Solenoid	(B)	Type 7 Aluminum Limit Switch (2) spdt	(B)
Type 4 Stainless Steel Solenoid	(Q)	Type 4 Stainless Steel Limit Switch	(Q)
Type 7 Stainless Steel Solenoid	(M)	Type 7 Stainless Steel Limit Switch	(M)

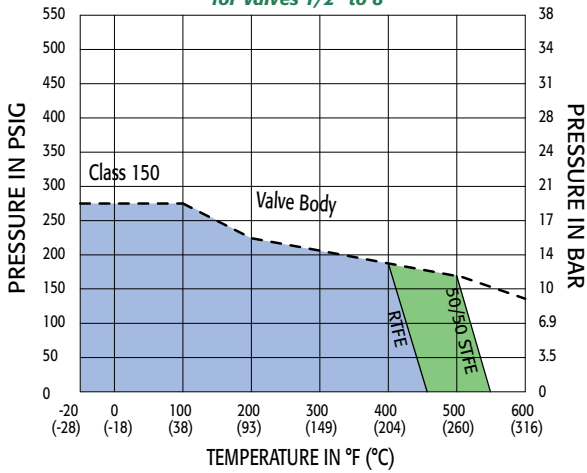
Other options available - call for details
Actuators are sized based on clean/clear fluid.



Series D9

High Performance, Full Port Split Body Ball Valve Series D9 (ANSI Class 150)

Pressure vs. Temperature Chart for Valves 1/2" to 8"



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.

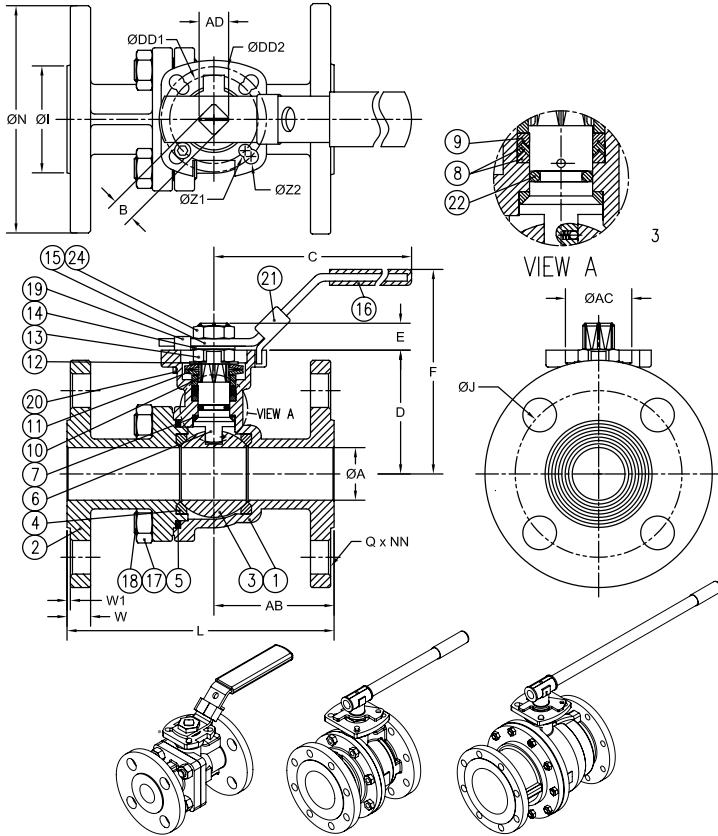
Break Away Torque for RTFE Seats	
SIZE	IN-LBS.
1/2"	92
3/4"	127
1"	150
1-1/2"	360
2"	395
2-1/2"	600
3"	900
4"	1,500
6"	2,550
8"	7,256

NOTE: For other seat material, consult factory

MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL
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
5	JOINT GASKET	2	PTFE
6	STEM	1	ASTM A276 SS316
7	STEM SEAL	1	RTFE
8	GLAND PACKING	1 [^]	PTFE
9	GLAND WASHER	1	RTFE
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	STEM WASHER	1	AISI 304
15	HANDLE	1	AISI 304
16	HANDLE SLEEVE	1	VINYL
17	BODY NUT	*	ASTM A194 GRADE 8
18	BODY STUD	*	ASTM A193 GRADE B8
19	STOP BOLT	1	AISI 304
20	STOP BOLT NUT	1	AISI 304
21	HANDLE LOCK	1	AISI 304
22	O-RING	1	VITON®
23	ANTI-STATIC DEVICE	2	AISI 316
24	HANDLE NUT	1	AISI 304

[^] PACKING SET
 * 1/2" THRU 2" QTY = 4 PCS
 * 2-1/2" THRU 4" QTY = 8 PCS
 * 6" QTY = 10 PCS
 * 8" QTY = 12 PCS



BENT HANDLE SIZES 1/2" - 2-1/2" PIPE HANDLE SIZES 3" - 4" PIPE HANDLE SIZE 6"
 NOTE: A-T CONTROLS RECOMMENDS A GEAR FOR 6" VALVES AND LARGER

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Z1	Z2	AB	AC	AD	DD1	DD2	NN	ISO 5211	(LBS)
1/2"	0.59	0.433	6.50	1.84	0.39	3.30	1.38	2.38	4.26	3.50	0.63	0.44	0.06	0.26	0.28	1.84	1.26	0.55	1.654	1.969	4	F04/F05	4.0
3/4"	0.79	0.433	6.50	2.02	0.39	3.45	1.69	2.74	4.62	3.88	0.63	0.44	0.06	0.26	0.28	2.18	1.26	0.55	1.654	1.969	4	F04/F05	5.0
1"	0.98	0.433	6.50	2.31	0.41	3.81	2.00	3.12	5.00	4.25	0.63	0.44	0.06	0.26	0.28	2.21	1.26	0.55	1.654	1.969	4	F04/F05	7.0
1-1/2"	1.50	0.748	10.32	3.51	0.75	5.60	2.88	3.88	6.50	5.00	0.63	0.56	0.06	0.39	0.47	2.83	2.09	0.94	2.756	4.016	4	F07/F10	14.5
2"	1.97	0.748	10.32	3.80	0.75	5.78	3.62	4.75	7.02	6.00	0.75	0.63	0.06	0.39	0.47	3.38	2.09	0.94	2.756	4.016	4	F07/F10	20.5
2-1/2"	2.56	0.748	10.32	4.57	0.75	6.75	4.12	5.50	7.48	7.00	0.75	0.69	0.06	0.39	0.47	3.06	2.09	0.94	2.756	4.016	4	F07/F10	31.0
3"	3.15	0.866	14.37	5.22	0.91	8.05	5.00	6.00	8.01	7.50	0.75	0.75	0.06	0.47	0.55	4.01	2.55	1.18	4.016	4.921	4	F10/F12	41.0
4"	3.94	0.866	14.37	6.18	0.91	9.00	6.19	7.50	9.00	9.00	0.75	0.94	0.06	0.47	0.55	4.07	2.55	1.18	4.016	4.921	8	F10/F12	67.5
6"	5.91	1.063	29.53	8.28	1.12	12.50	8.50	9.50	15.50	11.0	0.87	1.00	0.06	0.55	0.71	7.00	2.97	1.41	4.921	5.511	8	F12/F14	145.0
8"	7.91	1.417	37.60	10.43	1.58	12.83	10.62	11.75	18.00	13.5	0.88	1.12	0.06	0.71	0.87	9.00	NA	1.81	5.51	6.50	8	F14/F16	208.0

NOTE: 1-1/2" - 2-1/2" have 0.748 shaft as standard, 0.669 shaft is optional.
 Viton® is a registered trademark of E.I. DuPont de Nemours.
 A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.



Pneumatic Spring Return

Automated Ball Valve Package

Series D9
ANSI Class 150
Flanged Ball Valve
Direct Mount

Sizes 1/2"-6" stock
316SST Body, Ball, & Stem
ANSI Class 150
Full Port Design
Superior Live Loaded
Packing System
Blowout Proof Stem w/ Dual
Anti-Static Devices
RTFE Seats Standard
Pyramidal Stem Seal Design

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	EN 10204-3.1 MTR
QUALITY ASSURANCE	ISO 9001:2015

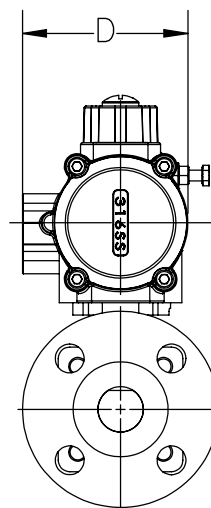
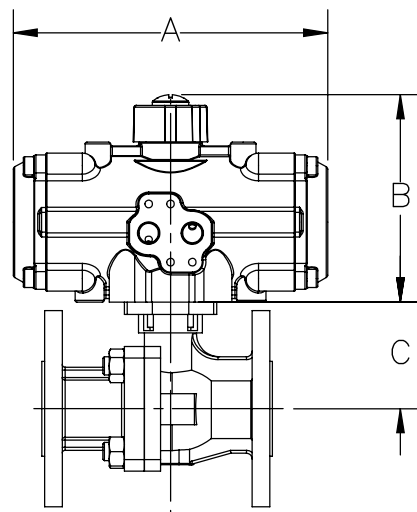


Direct Mount to TRIAC® S2 Series
Stainless Steel Actuator

DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	6.81	4.49	1.84	3.58	15
3/4"	6.81	4.49	2.02	3.58	45
1"	8.03	5.30	2.31	4.42	85
1-1/2"	10.63	6.32	3.51	5.31	275
2"	10.63	6.32	3.80	5.31	450
2-1/2"	10.63	6.32	4.57	5.31	700
3"	15.51	7.83	5.22	6.75	1,100
4"	17.95	8.88	6.18	7.58	2,200

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

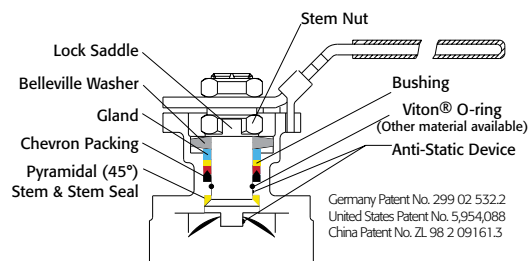


SERIES D9 Split Body "Painless Stainless"

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	D9-F1-050/S22S-XX
3/4"	D9-F1-075/S22S-XX
1"	D9-F1-100/S23S-XX
1-1/2"	D9-F1-150/S24S-XX
2"	D9-F1-200/S24S-XX
2-1/2"	D9-F1-250/S24S-XX
3"	D9-F1-300/S26S-XX
4"	D9-F1-400/S27S-XX

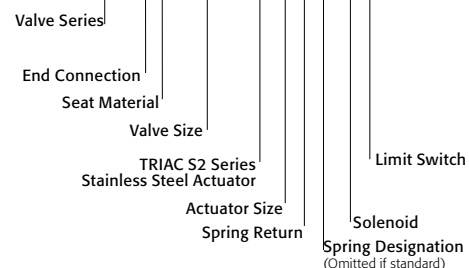
SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	D9-F1-050/S22S4-XX
3/4"	D9-F1-075/S22S4-XX
1"	D9-F1-100/S23S4-XX
1-1/2"	D9-F1-150/S24S4-XX
2"	D9-F1-200/S24S4-XX
2-1/2"	D9-F1-250/S25S4-XX
3"	D9-F1-300/S26S4-XX
4"	D9-F1-400/S27S4-XX

For spring return assemblies, all 80 psi assemblies will have 5 springs, and all 60 psi assemblies will have 4 springs (indicated by the 4-XX).



Germany Patent No. 299 02 532.2
United States Patent No. 5,954,088
China Patent No. ZL 98 2 09161.3

SAMPLE PART # D9-F1-300/S26S4-XX



See valve part number matrix for complete part number and options.

OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
Type 4 Aluminum Solenoid	(A)	Type 4 Aluminum Limit Switch (2) spdt	(A)
Type 7 Aluminum Solenoid	(B)	Type 7 Aluminum Limit Switch (2) spdt	(B)
Type 4 Stainless Steel Solenoid	(Q)	Type 4 Stainless Steel Limit Switch	(Q)
Type 7 Stainless Steel Solenoid	(M)	Type 7 Stainless Steel Limit Switch	(M)

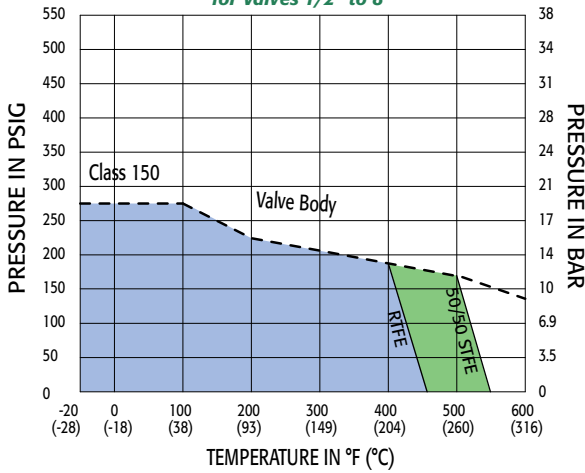
Other options available - call for details
Actuators are sized based on clean/clear fluid.



Series D9

High Performance, Full Port Split Body Ball Valve Series D9 (ANSI Class 150)

Pressure vs. Temperature Chart for Valves 1/2" to 8"

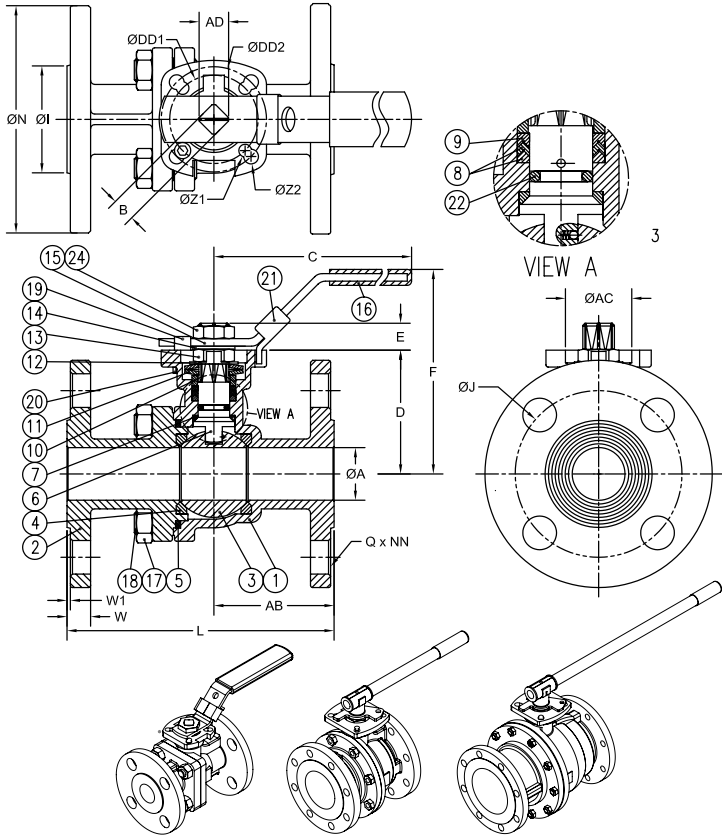


NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.

Break Away Torque for RTFE Seats

SIZE	IN-LBS.
1/2"	92
3/4"	127
1"	150
1-1/2"	360
2"	395
2-1/2"	600
3"	900
4"	1,500
6"	2,550
8"	7,256

NOTE: For other seat material, consult factory



BENT HANDLE SIZES 1/2" - 2-1/2" PIPE HANDLE SIZES 3" - 4" PIPE HANDLE SIZE 6"
NOTE: A-T CONTROLS RECOMMENDS A GEAR FOR 6" VALVES AND LARGER

MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL
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
5	JOINT GASKET	2	PTFE
6	STEM	1	ASTM A276 SS316
7	STEM SEAL	1	RTFE
8	GLAND PACKING	1 ^	PTFE
9	GLAND WASHER	1	RTFE
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	STEM WASHER	1	AISI 304
15	HANDLE	1	AISI 304
16	HANDLE SLEEVE	1	VINYL
17	BODY NUT	*	ASTM A194 GRADE 8
18	BODY STUD	*	ASTM A193 GRADE B8
19	STOP BOLT	1	AISI 304
20	STOP BOLT NUT	1	AISI 304
21	HANDLE LOCK	1	AISI 304
22	O-RING	1	VITON®
23	ANTI-STATIC DEVICE	2	AISI 316
24	HANDLE NUT	1	AISI 304

^ PACKING SET
* 1/2" THRU 2" QTY = 4 PCS
* 2-1/2" THRU 4" QTY = 8 PCS
* 6" QTY = 10 PCS
* 8" QTY = 12 PCS

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Z1	Z2	AB	AC	AD	DD1	DD2	NN	ISO 5211	(LBS)
1/2"	0.59	0.433	6.50	1.84	0.39	3.30	1.38	2.38	4.26	3.50	0.63	0.44	0.06	0.26	0.28	1.84	1.26	0.55	1.654	1.969	4	F04/F05	4.0
3/4"	0.79	0.433	6.50	2.02	0.39	3.45	1.69	2.74	4.62	3.88	0.63	0.44	0.06	0.26	0.28	2.18	1.26	0.55	1.654	1.969	4	F04/F05	5.0
1"	0.98	0.433	6.50	2.31	0.41	3.81	2.00	3.12	5.00	4.25	0.63	0.44	0.06	0.26	0.28	2.21	1.26	0.55	1.654	1.969	4	F04/F05	7.0
1-1/2"	1.50	0.748	10.32	3.51	0.75	5.60	2.88	3.88	6.50	5.00	0.63	0.56	0.06	0.39	0.47	2.83	2.09	0.94	2.756	4.016	4	F07/F10	14.5
2"	1.97	0.748	10.32	3.80	0.75	5.78	3.62	4.75	7.02	6.00	0.75	0.63	0.06	0.39	0.47	3.38	2.09	0.94	2.756	4.016	4	F07/F10	20.5
2-1/2"	2.56	0.748	10.32	4.57	0.75	6.75	4.12	5.50	7.48	7.00	0.75	0.69	0.06	0.39	0.47	3.06	2.09	0.94	2.756	4.016	4	F07/F10	31.0
3"	3.15	0.866	14.37	5.22	0.91	8.05	5.00	6.00	8.01	7.50	0.75	0.75	0.06	0.47	0.55	4.01	2.55	1.18	4.016	4.921	4	F10/F12	41.0
4"	3.94	0.866	14.37	6.18	0.91	9.00	6.19	7.50	9.00	9.00	0.75	0.94	0.06	0.47	0.55	4.07	2.55	1.18	4.016	4.921	8	F10/F12	67.5
6"	5.91	1.063	29.53	8.28	1.12	12.50	8.50	9.50	15.50	11.0	0.87	1.00	0.06	0.55	0.71	7.00	2.97	1.41	4.921	5.511	8	F12/F14	145.0
8"	7.91	1.417	37.60	10.43	1.58	12.83	10.62	11.75	18.00	13.5	0.88	1.12	0.06	0.71	0.87	9.00	NA	1.81	5.51	6.50	8	F14/F16	208.0

NOTE: 1-1/2" - 2-1/2" have 0.748 shaft as standard, 0.669 shaft is optional.
Viton® is a registered trademark of E.I. DuPont de Nemours.
A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.