



Pneumatic Double Acting Automated Ball Valve Package

**Series 22
Direct Mount**

316SST Body, Ball & Stem

Sizes 1/4" – 3"

Full Port Valve

Threaded Ends

1000 psi WOG

NACE MR-0175

2-piece High Cycle Design

Blowout Proof Stem w/ Dual
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

STANDARDS

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

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
ISO 9001:2015

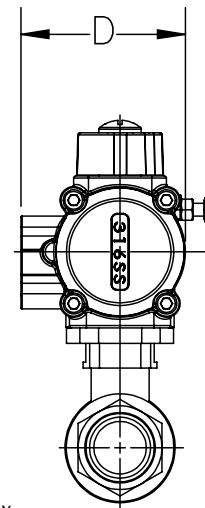
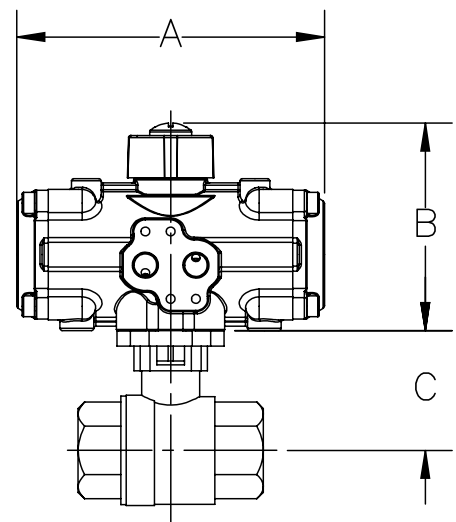


Direct Mount to TRIAC® S2 Series
Stainless Steel Actuator

DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/4"	5.75	3.88	1.53	3.07	7
3/8"	5.75	3.88	1.53	3.07	8
1/2"	5.75	3.88	1.60	3.07	15
3/4"	5.75	3.88	1.82	3.07	40
1"	5.75	3.88	2.24	3.07	70
1-1/4"	5.75	3.88	2.40	3.07	110
1-1/2"	6.81	4.49	3.06	3.58	250
2"	8.03	5.30	3.35	4.42	350
2-1/2"	8.03	5.30	4.31	4.42	600
3"	10.63	6.32	4.63	5.31	900

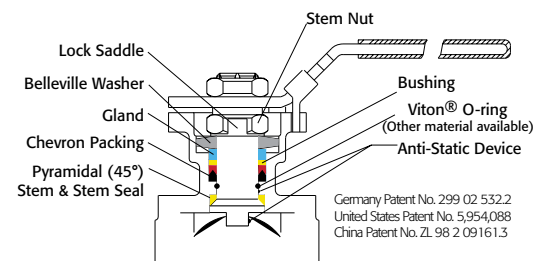
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY



SERIES 22 2-Piece Direct Mount "Painless Stainless"

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	22-TX-025/S21D-XX
3/8"	22-TX-038/S21D-XX
1/2"	22-TX-050/S21D-XX
3/4"	22-TX-075/S21D-XX
1"	22-TX-100/S21D-XX
1-1/4"	22-TX-125/S21D-XX
1-1/2"	22-TX-150/S22D-XX
2"	22-TX-200/S23D-XX
2-1/2"	22-TX-250/S24D-XX
3"	22-TX-300/S24D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	22-TX-025/S21D-XX
3/8"	22-TX-038/S21D-XX
1/2"	22-TX-050/S21D-XX
3/4"	22-TX-075/S21D-XX
1"	22-TX-100/S21D-XX
1-1/4"	22-TX-125/S22D-XX
1-1/2"	22-TX-150/S22D-XX
2"	22-TX-200/S23D-XX
2-1/2"	22-TX-250/S24D-XX
3"	22-TX-300/S24D-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 # 22-TX-150/S22D-XX

Valve Series
End Connections
Seat Material
Valve Size
TRIAC S2 Series
Stainless Steel Actuator
Actuator Size
Double Acting
Solenoid
Limit Switch

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)

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



A-T Controls, Inc.

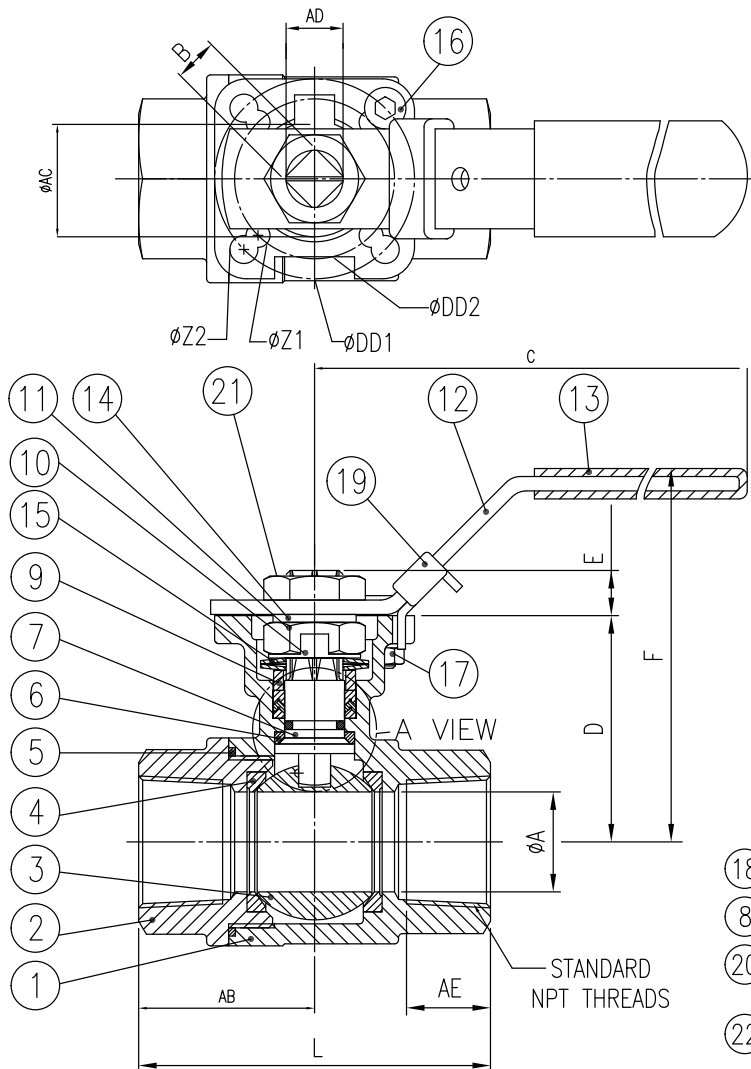
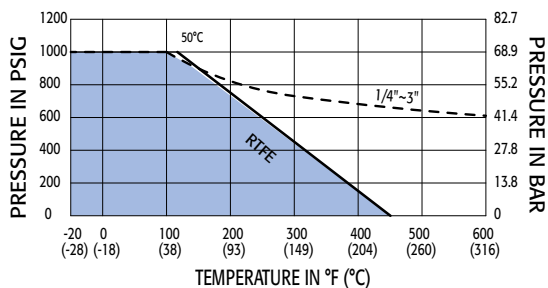
9955 International Blvd.
Cincinnati, Ohio 45246
www.atcontrols.com

PHONE (513) 247-5465
FAX (513) 247-5462
sales@atcontrols.com

Series 22

Direct Mount High Cycle Full Port Ball Valve

Pressure vs. Temperature Chart



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 GRADE CF8M
4	SEAT	2	RTFE
5	JOINT GASKET	1	PTFE
6	STEM SEAL	1	RTFE
7	STEM	1	ASTM A276 SS316
8	GLAND PACKING	1	PTFE
9	GLAND BUSHING	1	AISI 304
10	LOCK SADDLE	1	AISI 304
11	STEM NUT	1	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	BOLT NUT	1	AISI 304
18	GLAND WASHER	1	RTFE
19	HANDLE LOCK	1	AISI 304
20	O-RING	1	VITON®
21	HANDLE NUT	1	AISI 304
22	ANTI-STATIC DEVICE	2	AISI 316

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

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Z1	Z2	AB	AC	AD	AE	DD1	DD2	LBS	ISO 5211
1/4"	0.45	0.354	5.88	1.53	0.26	2.99	2.56	0.26	0.28	1.28	0.92	0.43	0.55	1.417	1.969	1.23	F03/F04/F05
3/8"	0.49	0.354	6.12	1.52	0.26	2.99	2.56	0.26	0.28	1.28	0.92	0.43	0.53	1.417	1.969	1.23	F03/F04/F05
1/2"	0.59	0.354	5.83	1.60	0.26	3.05	2.56	0.26	0.28	1.28	0.92	0.43	0.53	1.417	1.969	1.23	F03/F04/F05
3/4"	0.79	0.354	5.88	1.82	0.28	3.23	2.94	0.26	0.28	1.47	0.91	0.43	0.61	1.417	1.969	1.32	F03/F04/F05
1"	0.98	0.433	6.77	2.24	0.43	3.74	3.46	0.26	0.28	1.73	1.26	0.56	0.72	1.654	1.969	2.40	F04/F05
1-1/4"	1.26	0.433	6.77	2.40	0.43	3.92	4.02	0.24	0.27	2.01	1.26	0.56	0.81	1.654	1.969	3.31	F04/F05
1-1/2"	1.50	0.551	8.51	3.06	0.55	4.00	4.33	0.29	0.35	2.17	1.53	0.75	0.76	1.969	2.756	5.62	F05/F07
2"	1.97	0.551	8.51	3.35	0.56	5.16	4.92	0.29	0.35	2.46	1.53	0.75	0.89	1.969	2.756	7.93	F05/F07
2-1/2"	2.56	0.669	10.53	4.31	0.67	6.18	6.32	0.39	0.48	3.16	2.07	0.88	1.09	2.756	4.016	16.38	F07/F10
3"	3.15	0.669	11.88	4.63	0.71	6.80	7.01	0.39	0.48	3.51	2.08	0.88	1.19	2.756	4.016	22.81	F07/F10

Viton® is a registered trademark of E.I. DuPont de Nemours.

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 Cincinnati, Ohio 45246
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Pneumatic Spring Return Automated Ball Valve Package

Series 22 Direct Mount

316SST Body, Ball & Stem

Sizes 1/4" – 3"

Full Port Valve

Threaded Ends

1000 psi WOG

NACE MR-0175

2-piece High Cycle Design

Blowout Proof Stem w/ Dual
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

STANDARDS

DESIGN	ANSI/ASME B16.34
END CONNECTIONS	ASME B1.20.1
SULFIDE STRESS PROTECTION	NACE MR0175
MOUNTING	ISO 5211
MARKING SYSTEM FOR VALVES	MSS SP-25, MSS SP-55
SAFETY INTEGRITY	IEC 61508:2010; SIL 3
MATERIAL CERTIFICATION	EN 10204-3.1 MTR
QUALITY ASSURANCE	ISO 9001:2015

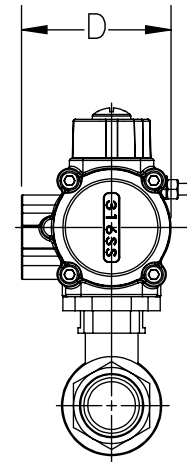
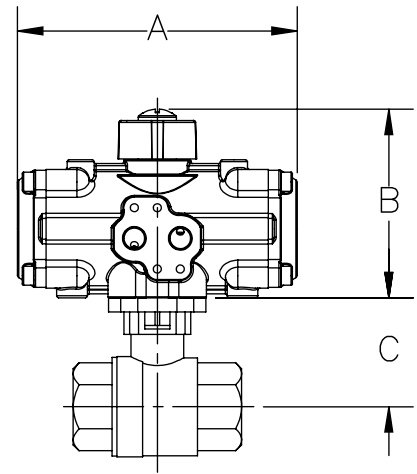


Direct Mount to TRIAC® S2 Series
Stainless Steel Actuator

DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/4"	5.75	3.88	1.53	3.07	7
3/8"	5.75	3.88	1.53	3.07	8
1/2"	5.75	3.88	1.60	3.07	15
3/4"	6.81	4.49	1.82	3.58	40
1"	6.81	4.49	2.24	3.58	70
1-1/4"	8.03	5.30	2.40	4.42	110
1-1/2"	8.03	5.30	3.06	4.42	250
2"	10.63	6.32	3.35	5.31	350
2-1/2"	10.63	6.32	4.31	5.31	600
3"	11.89	7.14	4.63	6.12	900

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY



SERIES 22 2-piece Direct Mount "Painless Stainless"

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	22-TX-025/S21S-XX
3/8"	22-TX-038/S21S-XX
1/2"	22-TX-050/S21S-XX
3/4"	22-TX-075/S22S-XX
1"	22-TX-100/S22S-XX
1-1/4"	22-TX-125/S23S-XX
1-1/2"	22-TX-150/S23S-XX
2"	22-TX-200/S24S-XX
2-1/2"	22-TX-250/S24S-XX
3"	22-TX-300/S25S-XX

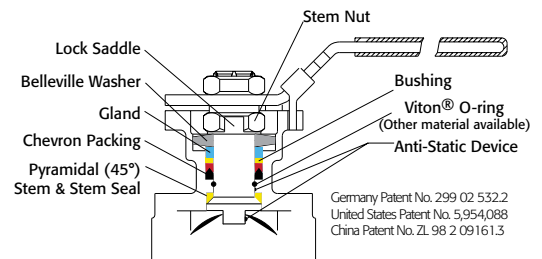
SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	22-TX-025/S21S4-XX
3/8"	22-TX-038/S21S4-XX
1/2"	22-TX-050/S21S4-XX
3/4"	22-TX-075/S22S4-XX
1"	22-TX-100/S22S4-XX
1-1/4"	22-TX-125/S23S4-XX
1-1/2"	22-TX-150/S23S4-XX
2"	22-TX-200/S24S4-XX
2-1/2"	22-TX-250/S25S4-XX
3"	22-TX-300/S26S4-XX

OPTIONS

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).

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)

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



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

SAMPLE PART # 22-TX-125/S23S4-XX

Valve Series
End Connections
Seat Material
Valve Size
TRIAC S2 Series
Stainless Steel Actuator
Actuator Size
Spring Return
Spring designation
(Omitted if standard)
Solenoid
Limit Switch

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



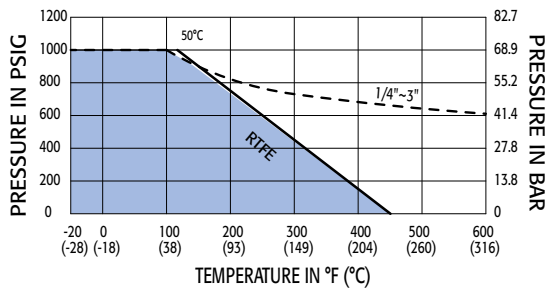
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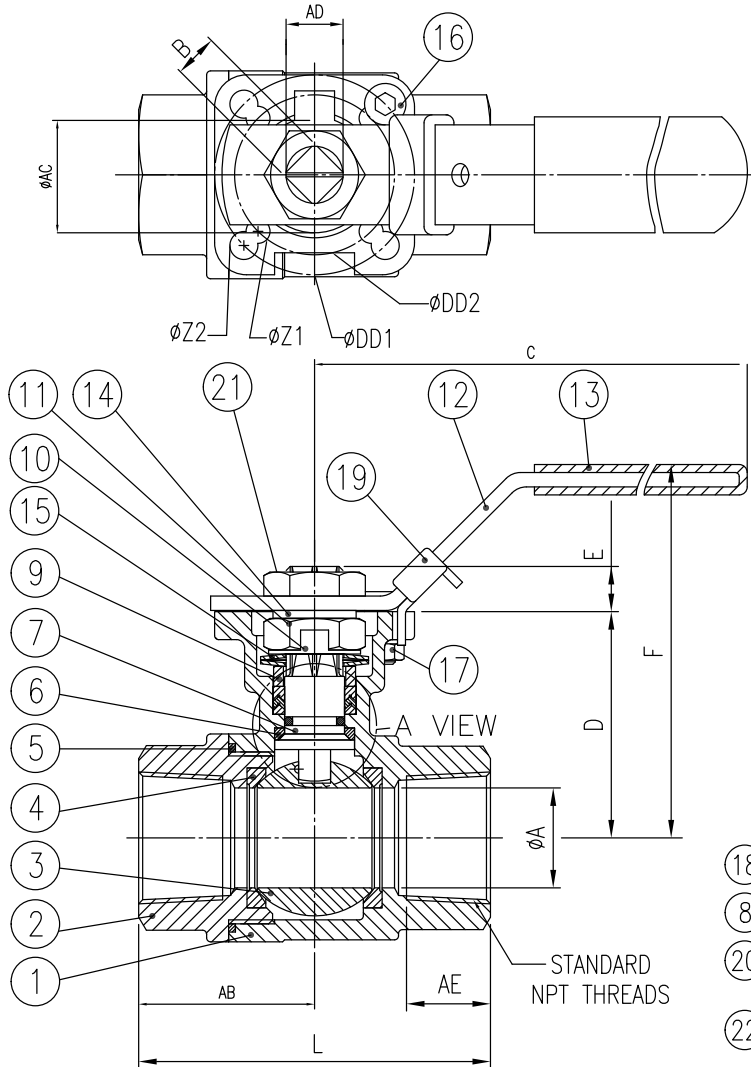
Series 22

Direct Mount High Cycle Full Port Ball Valve

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

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 GRADE CF8M
4	SEAT	2	RTFE
5	JOINT GASKET	1	PTFE
6	STEM SEAL	1	RTFE
7	STEM	1	ASTM A276 SS316
8	GLAND PACKING	1	PTFE
9	GLAND BUSHING	1	AISI 304
10	LOCK SADDLE	1	AISI 304
11	STEM NUT	1	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	BOLT NUT	1	AISI 304
18	GLAND WASHER	1	RTFE
19	HANDLE LOCK	1	AISI 304
20	O-RING	1	VITON®
21	HANDLE NUT	1	AISI 304
22	ANTI-STATIC DEVICE	2	AISI 316

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

DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	L	Z1	Z2	AB	AC	AD	AE	DD1	DD2	LBS	ISO 5211
1/4"	0.45	0.354	5.88	1.53	0.26	2.99	2.56	0.26	0.28	1.28	0.92	0.43	0.55	1.417	1.969	1.23	F03/F04/F05
3/8"	0.49	0.354	6.12	1.52	0.26	2.99	2.56	0.26	0.28	1.28	0.92	0.43	0.53	1.471	1.969	1.23	F03/F04/F05
1/2"	0.59	0.354	5.83	1.60	0.26	3.05	2.56	0.26	0.28	1.28	0.92	0.43	0.53	1.417	1.969	1.23	F03/F04/F05
3/4"	0.79	0.354	5.88	1.82	0.28	3.23	2.94	0.26	0.28	1.47	0.91	0.43	0.61	1.417	1.969	1.32	F03/F04/F05
1"	0.98	0.433	6.77	2.24	0.43	3.74	3.46	0.26	0.28	1.73	1.26	0.56	0.72	1.654	1.969	2.40	F04/F05
1-1/4"	1.26	0.433	6.77	2.40	0.43	3.92	4.02	0.24	0.27	2.01	1.26	0.56	0.81	1.654	1.969	3.31	F04/F05
1-1/2"	1.50	0.551	8.51	3.06	0.55	4.00	4.33	0.29	0.35	2.17	1.53	0.75	0.76	1.969	2.756	5.62	F05/F07
2"	1.97	0.551	8.51	3.35	0.56	5.16	4.92	0.29	0.35	2.46	1.53	0.75	0.89	1.969	2.756	7.93	F05/F07
2-1/2"	2.56	0.669	10.53	4.31	0.67	6.18	6.32	0.39	0.48	3.16	2.07	0.88	1.09	2.756	4.016	16.38	F07/F10
3"	3.15	0.669	11.88	4.63	0.71	6.80	7.01	0.39	0.48	3.51	2.08	0.88	1.19	2.756	4.016	22.81	F07/F10

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