

## RIGID COUPLING/STYLE 5

- Provides joint rigidity, for the support and hanging requirements of ANSI B31.1
- Tongue and groove arrangements in housings do not permit expansion, contraction or deflection
- Available with hot dipped galvanized coating as optional
- Supplied with pre-lubed gasket
- Provided with EPDM Gasket



UL Listed Under File No. EX15592

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	Pipe	Max Working	Allow Pipe End	Dimensions (In.)		Approx. Weight	
Nominal Size	Actual Size (In.)	Pressure (psi)*	Separation (In.)	Α	В	С	Each (lb.)
1"	1.315	300	0.1	2.188	3.86	1.73	1.2
11/4"	1.66	300	0.1	2.638	4.213	1.732	1.31
1½"	1.9	300	0.1	2.835	4.37	1.732	1.26
2"	2.375	300	0.1	3.346	4.921	1.732	1.47
<b>2</b> ½"	2.875	300	0.1	3.898	5.472	1.772	1.76
3"	3.5	300	0.1	4.567	6.535	1.772	2.41
4"	4.5	300	0.16	5.551	7.52	1.929	2.93
5"	5.563	300	0.16	6.575	8.622	1.929	3.55
6"	6.625	300	0.16	7.874	9.882	1.929	4.73
8"	8.625	300	0.19	9.961	12.598	2.323	8.15
10"	10.75	300	0.19	13.189	16.772	2.677	17.08
12"	12.75	300	.20	14.96	18.50	2.56	24.5

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. — Bolts and Nuts are galvanized. \* – Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product. EPDM gasket is supplied as standard. For other gaskets contact us.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



## FLEXIBLE COUPLING/STYLE 12

- · Provides joint flexibility required in some piping systems
- Conforms to the requirements of ANSI B31.1 Power Piping Code; ANSI B31.9 Building Service Pipe Code and NFPA 13 Sprinkler Systems
- Available with hot dipped galvanized coating as optional
- Supplied with pre-lubed gasket
- Provided with EPDM Gasket



UL Listed Under File No. EX15592

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	Pipe	Max Working					Dimensions (In.)			
Nominal Size	Actual Size (In.)	Pressure (psi)*	Separation (In.)	Per Coup. Deg.	Pipe (In.)	Α	В	С	Each (lb.)	
1"	1.315	300	0.1	5°-26'	1.14	2.19	3.86	1.73	1.2	
11/4"	1.66	300	0.1	4°-19'	0.9	2.638	4.213	1.732	1.30	
1½"	1.9	300	0.1	3°-46'	0.79	2.835	4.37	1.732	1.27	
2"	2.375	300	0.1	3°-1'	0.62	3.346	4.882	1.732	1.48	
<b>2</b> ½"	2.875	300	0.1	2°-29'	0.52	3.898	5.433	1.772	1.71	
3"	3.5	300	0.1	2°-3'	0.43	4.567	6.496	1.772	2.44	
4"	4.5	300	0.16	3°-11'	0.67	5.551	7.48	1.929	2.89	
5"	5.563	300	0.16	2°-35'	0.54	6.575	8.622	1.929	3.58	
6"	6.625	300	0.16	2°-10'	0.46	7.874	9.843	1.929	4.73	
8"	8.625	300	0.19	1°-40'	0.34	9.961	12.559	2.323	7.91	
10"	10.75	300	0.19	0°-95'	0.13	12.48	15.787	2.48	16.95	
12"	12.75	300	.20	0°-23'	0.12	14.76	17.91	2.52	24.0	

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. ☐ -Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product. EPDM gasket is supplied as standard. For other gaskets contact us.

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NOTES 2:	



## REDUCING COUPLING/STYLE 25

- Replaces two couplings and in-line reducer (concentric or eccentric)
- Available with hot dipped galvanized coating
- Provided with EPDM Gasket

# CUL US

UL Listed Under File No. EX15592

### HEAD LOSS

Size	Flov	/ Reducing	Flow Expanding		
(ln.)	C∟ Value	Equivalent Pipe Length (Smaller Dia.)	C∟ Value	Equivalent Pipe Length(Smaller Dia.)	
6" x 4"	0.16	4.5 ft	0.08	2.3 ft	
5" x 4"	0.14	3.0 ft	0.14	3.3 ft	
4" x 3"	0.37	6.0 ft	0.15	2.5 ft	
3" x 2½"	0.30	3.8 ft	0.19	2.5 ft	
3" x 2"	0.50	5.5 ft	0.30	3.5 ft	
2½" x 2"	0.18	1.9 ft	0.09	1.0 ft	
2" x 1½"	0.25	1.9 ft	0.23	2.0 ft	

In above table,  $C_L = \frac{2GH_L}{V^2}$ 

 $H_L = Head Loss in feet$ 

V = Velocity in smaller pipe in feet/sec.

G =Acceleration due to gravity = 32.2 feet/sec.<sup>2</sup>

→ C	B
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Pipe	Max. Working	Allow Pipe End		ction from er line	n Dimensions (in.)			Approx. Weight
Nominal Size	Pressure (psi)	Separation (in.)	Per Coup Deg.	Pipe (in.)	Α	В	С	Each (lb.)
1½" x 1¼"	300	0.12	1°-53'	0.4	2.88	4.55	1.77	1.75
2" x 1¼"	300	0.12	1°-53'	0.4	3.543	5.079	1.85	1.88
2" x 1½"	300	0.12	1°-33'	0.4	3.543	5.079	1.85	1.95
2½" x 2"	300	0.12	1°-33'	0.32	3.976	5.394	1.8	2.50
3" x 2"	300	0.12	1°-17'	0.26	4.724	6.45	1.89	3.64
3" x 2½"	300	0.12	1°-17'	0.26	4.72	6.457	1.89	3.27
4" x 2"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	4.74
4" x 2½"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	4.55
4" x 3"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	4.16
5" x 4"	300	0.25	2°-5'	0.44	6.969	8.74	1.909	6.65
6" x 4"	300	0.25	1°-44'	0.38	7.992	9.252	1.969	8.16
8" x 6"	300	0.25	1°-15'	0.26	10.394	12.32	2.362	15.15

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. — Bolts and Nuts are galvanized. \* – Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product. EPDM gasket is supplied as standard.

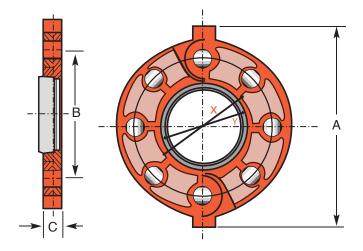
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# **GROOVED FLANGE/STYLE 14**

- Designed to connect ANSI Class 125 or 150 flanged components to a grooved piping system
- Made of a ductile iron conforming to ASTM A-536. Every lot is metallurgically examined to insure compliance
- Provided with EPDM rubber gasket as standard, suitable for -30 °F to 150 °F (-34 °C to 110 °C)
- Available with hot dipped galvanized coating





F	Pipe	Max Working	Sealing Surface (in.)			Approx. Weight		
Nominal Size	Actual Size (In.)	Pressure (psi) *	X Min.	Y Max.	Α	В	С	Each (lb.)
2"	2.375	300	3.09	2.42	8.11	4.763	0.866	3.84
2½"	2.875	300	3.58	2.92	9.055	5.511	0.866	5.08
3"	3.5	300	4.21	3.56	9.527	5.984	0.944	5.17
4"	4.5	300	5.26	4.57	11.023	7.519	0.944	6.46
5"	5.563	300	6.41	5.65	12.795	8.503	0.964	8.64
6"	6.625	300	7.48	6.71	13.583	9.5	0.964	8.49
8"	8.625	300	9.58	8.7	16.311	11.751	1.102	13.48
10"	10.75	300	11.65	10.85	20	14.25	1.195	24.0

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. — Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

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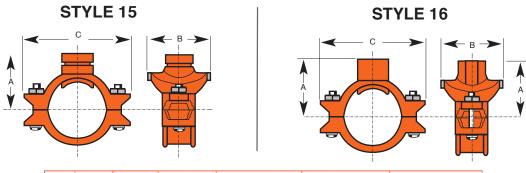


# MECHANICAL TEES STYLE 15 GROOVED & STYLE 16 THREADED

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Mechanical Branchlet provides a direct branch connection at any location along the pipe run without welding. A hole cut along the center line of pipe will receive the hole locator collar to secure the outlet. A pressure responsive EPDM gasket molded to suit the run pipe insures leak tight joints. Cross type connections can be made utilizing upper housings only. Available with hot dipped galvanized coating.

UL Listed Under File No. EX15592



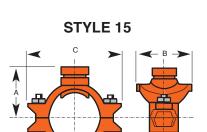
Run	Outlet	Max Working	Hole Diameter		Groov	ed Dimer (In.)	nsions	Thread	ed Dime (In.)	nsions	Approx. Weight Each	
Size	Size (In.)	Pressure (psi)*	Hole Saw (In.)	Max. Perm. (In.)	Α	В	С	Α	В	С	Grooved lb.	Thrd. lb.
1½"	1"	300	1.25	1.30	_	_	_	2.20	2.40	4.40	_	1.95
	1"	300	1.5	1.63	_	_	_	2.36	2.71	4.567	_	1.53
2	1-1/4"	300	1.75	1.63	2.32	2.71	4.57	2.36	2.71	4.567	2.27	1.66
	1-1/2"	300	1.75	1.81	2.32	2.71	4.57	2.36	2.71	4.567	2.46	1.88
	1"	300	1.5	1.63	_	_	_	2.76	3.03	5.67	_	1.98
2½	1-1/4"	300	2	1.63	2.76	3.307	5.67	2.76	3.27	5.67	2.27	2.36
	1-1/2"	300	2	2.13	2.76	3.267	5.67	2.76	3.27	5.67	2.47	2.33
	1"	300	1.5	1.63	_	_	_	3.23	3.03	5.98	_	2.48
3	1-1/4"	300	2	1.63	2.76	3.23	5.98	3.23	3.27	5.98	2.50	2.47
3	1-1/2"	300	2	2.13	2.76	3.58	5.98	3.23	3.62	5.98	2.89	2.60
	2"	300	2.5	2.13	3.23	2.4	5.98	3.23	3.89	5.98	3.23	2.96
	1"	300	1.5	1.63	_	_	_	3.43	3.03	6.77	_	2.86
	1-1/4"	300	2	1.63	3.66	3.27	7.32	3.43	3.27	6.77	3.40	3.261
	1-1/2"	300	2	2.13	3.66	3.62	7.32	3.43	3.62	6.77	3.16	3.25
4	2"	300	2.5	2.13	3.66	3.82	7.4	3.43	3.82	6.77	3.30	3.55
	2-1/2"	300	3	2.63	3.82	4.84	7.4	3.43	4.41	6.77	4.55	3.59
	3"	300	3.5	3.05	3.82	4.92	7.4	3.43	4.9	6.77	4.56	4.84

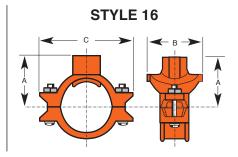
NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. — Bolts and Nuts ore galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.ct us.

APPROVAL STAMP
☐ APPROVED
☐ APPROVED AS NOTED
☐ NOT APPROVED
REMARKS:

# **MECHANICAL TEES**STYLE 15 GROOVED & STYLE 16 THREADED

Mechanical Branchlet provides a direct branch connection at any location along the pipe run without welding. A hole cut along the center line of pipe will receive the hole locator collar to secure the outlet. A pressure responsive gasket molded to suit the run pipe insures leak tight joints. Cross type connections can be made utilizing upper housings only.







UL Listed Under File No. EX15592

### PERFORMANCE DATA

OUTLET	Cv	Equiv. Feet of Pipe					
Nominal Size (In.)	Values	Grvd.	Female Thrd.				
1/2	15	-	2.0				
3/4	18	-	4.0				
1	22	-	5.0				
11/4	39	5.5	6.0				
11/2	52	7.0	8.0				
2	87	9.0	10.5				
21/2	117	11.0	12.5				
3	173	13.5	15.5				
4	346	20.0	22.0				

Run	Outlet	Max Working	Hole Diameter		Groove	ed Dimer (In.)	nsions	Thread	ed Dime (In.)	nsions	Approx. Weight Each	
Size	Size (In.)	Pressure (psi)*	Hole Saw (In.)	Max. Perm. (In.)	Α	В	С	Α	В	С	Grooved lb.	Threaded lb.
	11/2	300	2	2.13	_	_	_	3.94	3.62	8.27	_	3.65
5	2	300	2.5	2.63	4.21	3.82	8.66	3.94	3.82	8.27	4.47	3.89
5	<b>2</b> ½	300	2.75	2.88	4.21	4.84	8.66	3.94	4.84	8.27	_	_
	3	300	3.5	3.63	4.21	5.35	8.66	3.94	4.84	8.27	6.03	6.04
	11/4	300	2	2.13	5.04	3.23	9.72	4.61	3.27	9.53	5.50	5.32
	11/2	300	2	2.13	5.04	3.62	9.72	4.61	3.62	9.53	5.55	5.80
6	2	300	2.5	2.63	5.04	3.86	9.72	4.61	3.82	9.53	6.18	5.96
	<b>2</b> ½	300	3.25	3.35	5.04	4.84	9.72	4.61	4.84	9.53	5.32	5.325
	3	300	3.5	3.63	5.04	5.35	9.72	4.61	5.35	9.53	7.32	7.32
	4	300	4.5	4.63	5.04	6.18	9.72	4.61	6.14	9.53	7.60	7.6
	2	300	2.5	2.63	5.98	5.11	12.2	5.75	3.82	12.2	7.50	7.50
8	<b>2</b> ½	300	2.75	2.88	5.98	5.11	12.2	5.75	5.11	12.2	7.71	7.71
	3	300	3.5	3.63	5.98	5.39	12.2	5.75	5.39	12.2	8.3	8.3
	4	300	4.5	4.63	5.98	6.38	12.2	5.75	6.38	12.2	9.09	10.17

NOTES: — Bolts and Nuts are galvanized. \* — Maximum pressure including surges and maximum end loads from all internal and external forces, towhich a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product. EPDM gasket is supplied as standard. For other gaskets contact us.

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NOTES 2:	



## GROOVED FITTINGS -SHORT PATTERN STYLES F105, F106, F107, F135 & F155

- Sized to improve flow
- Designed to Fire Protection Industry standards for short patterned fittings
- Rated for 300 psi
- Made of durable, high-strength ductile iron conforming to ASTM A536; every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating



UL Listed Under File No. EX15591

Frie	FLOW DATA Frictional Resistance (Expressed as equivalent Straight Pipe in Ft.)											
Nominal	90° E	lbow	45° E	lbow	Tee							
Size					Bra	nch	R	un				
(In)	STD	F105	STD	F106	STD F107		STD	F107				
1	1.7	1.4	0.9	0.9	4.4	4.0	1.7	1.4				
11/4	2.3	1.8	1.2	1.0	5.8	4.2	2.3	1.8				
11/2	2.7	2.5	1.3	1.3	6.7	5.5	2.7	2.5				
2	3.4	3.2	1.7	1.6	8.6	8.2	3.4	2.5				
21/2	4.1	3.9	2.1	2.0	10.3	10.1	4.1	3.9				
3	5.1	4.8	2.6	2.4	12.8	12.5	5.1	4.8				
4	6.7	6.5	3.4	3.2	16.8	16.0	6.7	6.5				
5	8.4	8.4	4.2	4.0	21.0	20.5	8.4	8.2				
6	10.1	10.0	5.1	4.8	25.3	24.0	10.1	9.6				
8	13.3	13.0	6.7	6.5	33.3	33.0	13.3	13.0				

Flow data is based upon the pressure drop of Sch. 40 pipe



Pi	ре	90° Elbow No. F105		45° Elbow No. F106			al Tee F107		oss F135	End Cap No. F155	
Nominal Size	Actual Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Aprox. Wgt. Ea. (lb.)	C to E (In.)	Aprox. Wgt. Ea. (lb.)	C to E (In.)	Aprox. Wgt. Ea. (lb.)	E to E (In.)	Aprox. Wgt. Ea. (lb.)
1	1.66	2.362	.80	1.73	.70	2.362	1.10	2.75	2.1	0.99	.33
11/2	1.9	2.362	1.01	1.73	.78	2.362	1.34	2.75	2.5	0.99	0.44
2	2.375	2.755	1.24	2.00	1.20	2.755	1.98	2.75	2.49	0.99	0.61
<b>2</b> ½	2.875	2.992	2.03	2.24	1.63	2.992	2.82	2.99	3.19	0.99	0.85
3	3.5	3.368	2.53	2.52	2.38	3.386	3.90	3.38	5.09	0.99	1.01
4	4.5	3.996	3.74	3.00	3.84	3.996	5.72	3.99	7.22	0.99	1.42
5	5.563	4.803	7.20	3.28	5.74	4.803	9.52	4.80	7.23	0.99	2.80
6	6.625	5.5	9.06	3.51	8.11	5.5	14.13	5.5	15.97	0.99	4.40
8	8.625	6.889	20.52	4.25	14.27	6.889	27.07	6.88	28.66	1.181	9.30

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. - Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 limes working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

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# **STANDARD GROOVED FITTINGS STYLES 100, 101, 102, 103, 110 & 150**

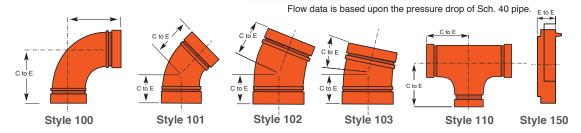


All fittings are full flow design

UL Listed Under File No. EX15591

- Made of durable, high-strength ductile iron conforming to ASTM A536; every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Suitable for HVAC, plumbing, & fire protection systems
- Rated for 300 psi

	FLOW DATA Frictional Resistance (Expressed as equivalent Straight Pipe in Ft.)											
Nominal	EII	bow	Te	ee	Nominal	Elt	oow	Tee				
Size (In.)	90° Elbow	45° Elbow	Branch	Run	Size (In.)	90° Elbow	45° Elbow	Branch	Run			
11/4	2.3	1.2	5.8	2.3	5	8.4	4.2	21.0	8.4			
11/2	2.7	1.3	6.7	2.7	6	10.1	5.1	25.3	10.1			
2	3.4	1.7	8.6	3.4	8	13.3	6.7	33.3	13.3			
<b>2</b> ½	4.1	2.1	10.3	4.1	10	16.7	8.4	41.8	16.7			
3	5.1	2.6	12.8	5.2								
4	6.7	3.4	16.8	6.7								



Pi	ipe		Elbow . 100		Elbow o. 101		" Elbow o. 102		4" Elbow No. 103		ual Tee 5. 110	End No.	
Nominal Size (In.)	Actual Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	E to E (In.)	Approx. Wgt. Ea. (lb.)								
11/4	1.66	2.24	0.93	1.73	0.70	1.732	.80	1.38	0.55	2.755	1.52	0.99	.33
1½	1.9	2.755	1.17	1.73	0.78	1.732	.84	1.38	0.63	2.755	1.74	0.99	.44
2	2,375	3.257	1.77	2	1.20	2	1.14	1.38	0.82	3.267	2.5	0.99	.62
21/2	2.875	3.74	2.76	2.24	1.63	2	1.50	1.5	1.22	3.74	3.73	0.99	.86
3	3.5	4.251	3.44	2,52	2,38	2,24	2,53	1.5	1.62	4.251	6.24	0.99	1.01
4	4.5	5.0	5.32	3	3.84	2.87	3.91	1.89	2.63	5	8.70	0.99	1.42
5	5.563	5.51	8.0	3.28	5.74	2.87	5.10	2	3.90	5.511	12.44	0.99	2.80
6	6.625	6.496	14.31	3.51	8.11	3.11	7.16	2	4.78	6.496	18.21	0.99	2.0
8	8.625	8.755	21.63	4.25	14.27	3.86	11.88	2	7.10	7.755	33.25	1.181	7.31
10	10.75	9.015	37.04	4.76	22,00	4.37	30.0	2.13	14.5	9.015	46.35	1.259	9.33
12	12.75	10.0	57.25	31.50	10.0	_	_	_	_	10.0	59.50	1.26	13.25

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-holf of the values listed of time of initial pressurization. -Bolts and Nuts ore gavanized. \*- Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of I.S times working pressure hosed on sandard weight steel pipe. Maximum working pressure may be subjected to a one time field test of I.S times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	□ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	

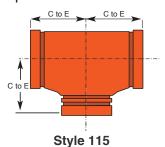


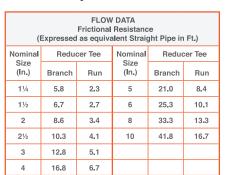
## REDUCER TEE - SHORT PATTERN / STYLE 115



UL Listed Under File No. EX15591

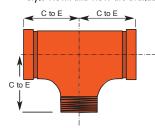
- Made of durable, high-strength ductile iron conforming to ASTM A536
- Every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Rated for 300 psi

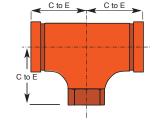




Flow data is based upon the pressure drop of Sch. 40 pipe.

Style 115TM and 115TF are available up to 8" run size and  $2\frac{1}{2}$ " outlet size.





Style 115TM

Style 115TF

Add after part nu						
Nominal Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)		Nominal Size (In.)	C to E (In.)	Appro Wgt. E (lb.)
2 x 2 x 11/4	2.76	2.7		6 x 6 x 5	5.60	30.
2 x 2 x 1½	2.76	2.7		6 ½ x 6½ x 2	5.60	26.4
2½ x 2½ x 1	3.00	4.8		6½ x 6½ x 2½	5.60	26.5
2½ x 2½ x 1¼	3.00	4.8		6½x6½x3	5.60	24.0
2½ x 2½ x 1½	3.00	5.1		6½ x 6½ x 4	5.60	25.0
2½ x 2½ x 2	3.00	5.1		8 x 8 x 1½	7.05	33.0
3 x 3 x 1	3.38	5.8		8 x 8 x 2	7.05	33.5
3 x 3 x 11/4	3,38	6.4		8 x 8 x 2½	7.05	39.0
3 x 3 x 1½	3,38	7.5		8 x 8 x 3	7.05	33.6
3 x 3 x 2	3.38	8.4		8 x 8 x 4	7.05	47.4
3 x 3 x 2½	3.38	8.6		8 x 8 x 5	7.05	48.3
4 x 4 x 1	4.00	7.8		8 x 8 x 6	7.05	49.8
4 x 4 x 11/4	4.00	9.6		8 x 8 x 6½	7.05	50.5
4 x 4 x 1½	4.00	10.2		10 x 10 x 2	8.46	84.9
4 x 4 x 2	4.00	10.4		10 x 10 x 2½	8.46	83.8
4 x 4 x 2½	4.00	11.4		10 x 10 x 3	8.46	82.7
4 x 4 x 3	4.00	11.6		10 x 10 x 4	8.46	79.4
5 x 5 x 1½	4.80	14.3		10 x 10 x 5	8.46	78.9
5 x 5 x 2	4.80	14.5		10 x 10 x 6	8.46	78.3
5 x 5 x 2½	4.80	15.2		10 x 10 x 8	8.46	77.2
5 x 5 x 3	4.80	15.4	ľ			
5 x 5 x 4	4.80	16.1				

**NOTES:** Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. 

-Bolts and Nuts are galvanized. 

-Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

6 x 6 x 1½ 6 x 6 x 2

6 x 6 x 21/2

6 x 6 x 3

6 x 6 x 4

5.60

5.60

5.60

5.60

24.0

26.4

26.5

26.5

29.3

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	

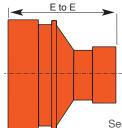


# STANDARD CONCENTRIC REDUCER STYLE 140



UL Listed Under File No. EX15591

- Made of durable, high-strength ductile iron conforming to ASTM A536
- Every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Rated for 300 psi



See Style 140TM and 140TF for threaded outlet.

Concent	Concentric Reducer - No.140		Concentric Reducer - No.140		
Nominal Size	E to E (In.)	Approx. Wgt. Ea. (lb.)	Nominal Size	E to E (In.)	Approx. Wgt. Ea. (lb.)
1¼ x 1	2.52	.49	5 x 2½	3.5	2.57
1½ x 1	2.52	.60	5 x 3	3.5	2.73
2 x 1	2.52	.72	5 x 4	3.5	2.95
2 x 11/4	2.52	.69	6 x 2	4.02	4.36
2 x 1½	2.52	.72	6 x 2½	4.02	4.10
2½ x 1	2.52	.86	6 x 3	4.02	4.12
2½ x 1¼	2.52	.91	6 x 4	4.02	4.63
2½ x 1½	2.52	.92	6 x 5	4.02	4.35
2½ x 2	2.52	1.02	8 x 3	5	7.71
3 x 1	2.52	1.10	8 x 4	5	6.76
3 x 11/4	2.52	1.15	8 x 5	5	7.71
3 x 1½	2.52	1.16	8 x 6	5	8.15
3 x 2½	2.52	1.25	10 x 4	5.98	20.0
4 x 1	3	2.2	10 x 5	5.98	20.0
4 x 11/4	3	2.2	10 x 6	5.98	14.48
4 x 1½	3	2.3	10 x 8	5.98	14.16
5 x 2	3.5	4.6			

# ECCENTRIC REDUCER STYLE 145

Eccentric Reducer - No.145 Add TF after part number for Internal or TM for External threaded outlet.				
Nominal Size (In.)	E to E (in.)	Approx. Wgt. Ea. (lb.)		
2 x 1¼	9	4.6		
2 x 1½	9	4.6		
2½ x 2	9.5	1.4		
3 x 11/4	9.5	4.8		
3 x 1½	9.5	5.0		
3 x 2	9.5	1.8		
3 x 2½	9.5	1.6		
4 x 2	10	2.6		
4 x 2½	10	2.8		
4 x 3	10	3.3		
5 x 2	11	5.2		
5 x 2½	11	10.8		
5 x 3	11	11.0		
5 x 4	11	5.1		
6 x 2	11.5	14.5		
6 x 2½	11.5	14.1		
6 x 3	11.5	14.9		
6 x 4	11.5	6.6		
6 x 5	11.5	9.4		
8 x 3	12	22.0		
8 x 4	12	22.9		
8 x 5	12	26.5		
8 x 6	12	30.8		
10 x 3	13	29.7		
10 x 4	13	31.9		
10 x 5	13	34.6		
10 x 6	13	36.5		
10 x 8	13	38		

**NOTES:** Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. \_\_\_ - Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	□ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	

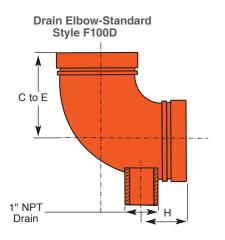


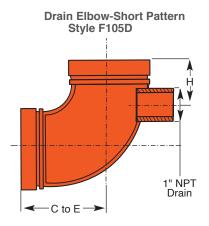
# STANDARD DRAIN ELBOW STYLE F100D & F105D



UL Listed Under File No. EX15591

- Provides 1" NPT drain required on some fire protection stand pipes
- Smoother flow than fabricated segmented steel elbows
- Made of ductile iron conforming to ASTM A536
- · Every lot is metallurgically tested to insure compliance
- Available with hot dipped galvanized coating





FLOW DATA Equivalent Feet of Straight Pipe				
Nominal	ninal 90° Elbow			
Size (In.)	STD Short Pattern			
2	3.5	3.2		
<b>2</b> ½	4.3	3.9		
3	5.0	4.8		
4	6.8	6.5		
6	10.0	10.0		

Flow data is based upon the pressure drop of Sch. 40 pipe.

### Drain Elbow-Standard - Style F100D

Pi	ре	Dimensions (In.)		Approx. Wgt. Ea.
Nominal Size (In.)	Actual Size (In.)	C to E	Н	(Lb.)
2	2.375	3.25	2.75	3.8
2½	2.875	3.75	2.75	5.2
3	3.500	4.25	2.75	5.3
4	4.500	5.00	2.75	8.8
6	6.625	6.50	2.75	18.7

### **Drain Elbow-Short Pattern - Style F105D**

Pi	ре	Dimensions (In.)		Approx. Wgt. Ea.
Nominal Size (In.)	Actual Size (In.)	C to E	Н	(Lb.)
2	2.375	2.75	2.00	1.0
<b>2</b> ½	2.875	3.00	2.00	1.7
3	3.500	3.50	2.00	2.5
4	4.500	4.00	2.00	5.3
6	6.625	5.50	2.00	13.9

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. — Bolts and Nuts are galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to TRI Seal gakets are recommneded. EPDM gasket is supplied as standard. For other gaskets contact us.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
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SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	

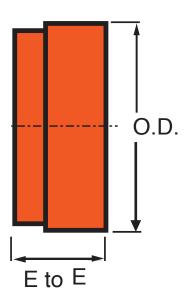


# GROOVED END CAP WITH TAPPED 1" HOLE

- GemLock Style F155D End Cap with 1" Hole
- Rated to 300 psi
- Available Hot Dipped Galvanized



Figure F155D CAP					
Nominal Size	O.D.	End to End	Approx. Wt. Ea.		
In./DN	ln.	ln.	Lbs.		
1¼	1.660	1¼	0.4		
1½	1.900	1¼	0.5		
2	2.375	1	0.5		
<b>2</b> ½	2.875	1	0.7		
3	3.500	1	1.1		
4	4.500	11//8	2.8		
5	5.563	11/8	4.0		
6	6.625	<b>1</b> <sup>5</sup> ⁄ <sub>16</sub>	6.0		
8	8.625	1½	12.5		
10	10.750	1½	21.9		



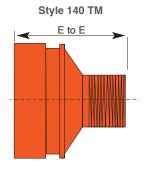
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PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	

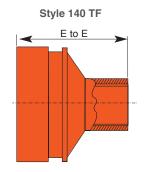


# CONCENTRIC REDUCER STYLE 140 TF, TM



- Available with hot dipped galvanized coating
- Rated for 300 psi





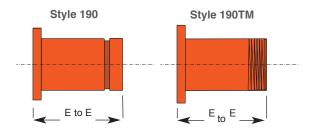
UL Listed Under File No. EX15100 • Designation: XGQT16S

Nominal Size (in.)	E to E (In.)	Approx. Wgt. Each (lb.)
2 x 1	2.5	1.39
2 x 11/4	2.5	0.74
2 x 1½	2.5	0.74
2 x 1	2.5	1.14
2½ x 1¼	2.5	1.14
2½ x 1½	2.5	1.14
2½ x 2	2.5	1.14
3x1	2.5	1.59
3x11/4	2.5	1.59
3x1½	2.5	1.59
3x2	2.5	1.38
4x1	3	2.28
4x11/4	3	2.28
4x1½	3	2.28
4x2	3	2.28
6x1	4	6.92
6x1¼	4	6.92
6x1½	4	6.92
6x2	4	6.92

# FLANGE ADAPTERS STYLE F190 & STYLE F190 TM



- Available with an external threaded or grooved end
- Every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Rated for 300 psi





UL Listed Under File No. EX15591

Actual Size (In.)	E to E (In.)	Approx. Wgt. Ea. (lb.)
2.375	4.0	6.6
2.875	4.0	8.8
3.500	4.0	11.0
4.500	6.0	19.8
5.563	6.0	22.0
6.625	6.0	28.6
8.625	6.0	43.0
10.750	8.0	60.5
	(in.) 2.375 2.875 3.500 4.500 5.563 6.625 8.625	(in.) 2.375

NOTES: Allowable pipe end separation is for cut groove pipe for roll groove, figures will be one-half of the values listed at time of initial pressurization. - Bolts and Nuts ore galvanized. \* - Maximum pressure including surges and maximum end loads from all internal and external forces, to which a joint could be subject under normal working conditions. This rating provides a nominal safety factor of 1.5 times working pressure based on standard weight steel pipe. Maximum working pressure may be subjected to a one time field test of 1.5 times the figures indicated. Refer to installations and groove specifications when assembling any grooved product.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



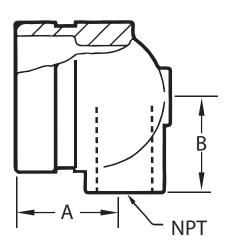
# 90° ADAPTER ELL STYLE 105TL

- Transitions From Grooved to Threaded Connection
- Direct Connection to Sprinkler Heads
- Available in Rust Inhibitive Black Paint & Galvanized Finish
- UL/FM Rated for 500 psi



UL Listed Under File No. EX15591





Nominal Size	Max. Work	Dimensions (In)		
Inch	Press. (psi)	Α	В	
11/4 x 1/2	500	1.77	1.20	
11/4 x 3/4	500	1.77	1.20	
1¼ x 1	500	1.91	1.24	
1½ x ½	500	1.77	1.32	
1½ x ¾	500	1.77	1.32	
1½ x 1	500	1.91	1.32	
2 x ½	500	1.75	1.57	
2 x ¾	500	1.77	1.57	
2 x 1	500	1.91	1.63	
2½ x ½	500	1.75	1.75	
2½ x ¾	500	1.75	1.75	
2½ x 1	500	1.91	1.81	

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



www.gemlockgrooved.com • Ph: (518) 270-2159 • Fax: (518) 270-8384 75 Cohoes Ave. Green Island, NY 12183 •

# **EE LOCK**

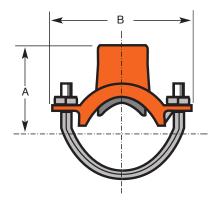
- Molded gasket for each header size is made to insure a leak tight connection
- Rated for 300 psi. UL Listed and FM Approved
- Manufactured from Ductile Iron, per ASTM A536
- Grade E EPDM gasket rated for -30°F to 150°F\*
   Available with hot dipped galvanized coating

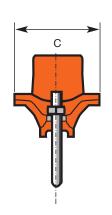


**UL Listed Under Designation: EX15592** 









Nominal Size	Max. Working	Hole Saw Inch	Dimensions Inches			Weight
(ln.)	Pressure (psi)		Α	В	С	
11/4 x 1/2	300	<b>1</b> 3/ <sub>16</sub>	1.693	3.543	2.205	0.78
11/4 x 3/4	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	1.772	3.543	2.205	0.85
1¼ x 1	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	1.969	3.543	2.20	0.95
1½ x ½	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	1.693	3.661	2.323	0.78
1½ x ¾	300	<b>1</b> 3/ <sub>16</sub>	2.126	3.661	2.323	0.89
1½ x 1	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.283	3.661	2.323	0.98
2 x ½	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.126	3.780	2.323	0.82
2 x ¾	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.205	3.780	2.323	0.90
2 x 1	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.598	3.780	2.323	1.02
2½ x ½	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.362	4.331	2.323	0.90
2½ x ¾	300	<b>1</b> 3/ <sub>16</sub>	2.480	4.331	2.323	0.93
2½ x 1	300	<b>1</b> <sup>3</sup> / <sub>16</sub>	2.756	4.331	2.323	0.95

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



# **GROOVED BUTTERFLY VALVE** FEATURES:

LISTED FM

**UL Listed Under Designation: EX15837** 

- Rated 300 psi
- UL Listed/FM Approved
- Indoor/ Outdoor use
- Pre-wired double tamper switches
- Eliminates water hammer
- Slow open/Slow close

- Flag type position indicator
- DI body encapsulated with a resistant durable polymer coating to ensure a long service life
- Disc is EPDM Coated with SS Stem
- Manufactured by Lansdale Valve and Manufacturing for Gemlock



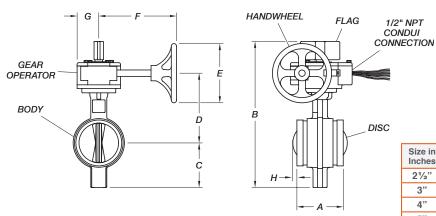
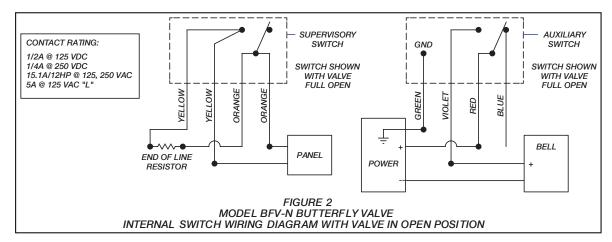


FIGURE 1
MODEL BFV-N GROOVED END BUTTERFLY VALVE
NOMINA L DIMENSIONS

Size in Inches	Α	В	С	D	E	F	G	Н
21/2"	3.85	11.95	3.25	5.67	5.90	5.82	2.13	0
3"	3.85	12.50	3.50	6.00	5.90	5.82	2.13	0
4"	4.50	14.18	4.35	6.30	5.90	7.65	2.13	0
5"	5.85	15.20	4.85	7.32	5.90	7.65	2.13	0
6"	5.85	17.50	6.0	8.60	5.90	7.65	2.13	.15
8"	5.25	19.40	6.90	9.80	9.80	7.90	2.13	1.27
10"	6.30	24.0	9.20	11.60	18.00	9.5	3.0	1.75



PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



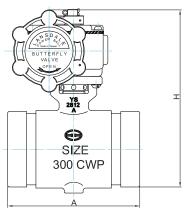
Sprinkler Control Valve for indoor and outdoor use. Brass body, chrome plated brass disc, and 300 PSI. UL Listed/FM Approved. Available threaded in sizes 1" to 2-1/2" and grooved from 1-1/4" to 2-1/2". Complete with Position Indicator and integral Tamper Switch.

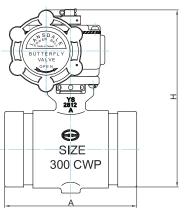
### **Features:**

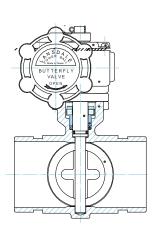
Internal tamper switch for Indoor/Outdoor Use

- Flag type indicator
- Prewired double tamper switch
- Elimination of Water Hammer
- Slow opening and closing
- Patent Pending
- Manufactured by Lansdale Valve and Manufacturing









### **POWERBALL THREADED**

SIZE	WEIGHT				
1"	3.42				
1 -1/4"	3.75				
1 -1/2"	4.03				
2"	5.18				
2 -1/2"	7.46				

DOM.	/FRR	LIAS	GRO	OVED

SIZE	WEIGHT
1 -1/4"	3.90
<b>1</b> -½"	4.12
2"	4.78
2 -1/2"	6.17

DIMENSIONS

	Size	1"	11/4"	1½"	2"	2½"	
	Α	2.125	3.86	4.02	4.09	4.49	
	Н	5.125	5.20	5.47	6.07	6.58	

### **MATERIAL LIST**

NO	NAME	MATERIAL LIST
1	BODY	BRONZE ASTM 584 C83600
2	DISC	SS304
3	HANDWHEEL	ASTM A216 WCB
4	SEAT	ASTM D2000 VITON
5	INDICATOR	POWDER METAL FD0205 95HT
6	HOUSING	BRASS ASTM B16 C36000
7	COVER	BRASS ASTM B16 C36000

PROJECT	APPROVAL STAMP
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SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



**UL Listed Under Designation: EX15837** Note: See submittal sheet for dimensional data





## RESIDENTIAL RISER ASSEMBLY

The Lansdale Residential Riser is a cost effective factory assembled riser assembly. The assembly comes in three configurations to meet all of your needs and features cast in place mounting brackets for ease of installation. The assembly has a working pressure of 250 psi and all components are UL Listed.

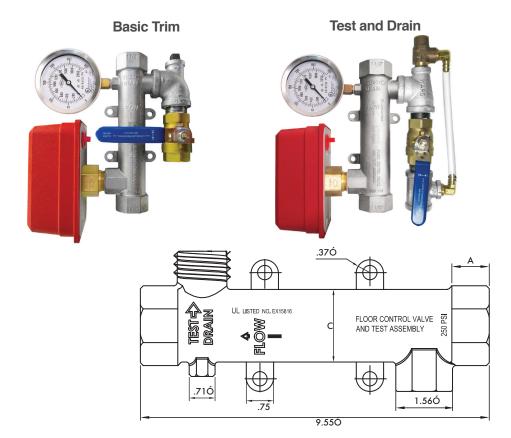


UL Listed Under File No. EX15816

### **Features:**

- Lead Free stainless steel body construction
- Factory assembled
- Factory pressure tested at 250 psi (13.8 bar)
- Choice of 3 kinds of trim:
- Basic Trim (as shown), Test & Drain, Basic Trim with Pressure Relief Kit
- Supply/System lines support the assembly or lugs can be bolted to a wall
- NPT (female x female) connections Grooved x Threaded Adapter Available
- Slim design allows for easy installation within 2" x 4" x 16" centers wood frame construction
- Optimum sensitivity is assured through a dedicated UL Listed and ULC Listed Water Flow Detector. Water Flow Detector is factory installed with a plastic, non-conductive, waterproof cover.
- Triggering flow rate is 4 GPM.
- Manufactured by Lansdale Valve and Manufacturing









Size	Α
1"	.75"
11/4"	1.02"
1½"	1.02"
2"	1.02"

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



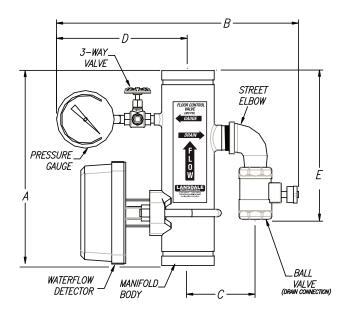
www.gemlockgrooved.com • Ph: (518) 270-2159 • Fax: (518) 270-8384 75 Cohoes Ave. Green Island, NY 12183 •

## COMMERCIAL RISER ASSEMBLY

Lansdale Commercial Risers are factory assembled with brass and galvanized trim. Each riser is factory tested at 300 psi and available with "Test and Drain" or Ball Valve Trim and pressure relief kit.

- Rated for 300 psi working pressure
- Built in Water Flow Switch assures optimum sensitivity
- 1/4" 3-way valve allows for easy testing and replacing of pressure gauge
- Manufactured by Lansdale Valve Manufacturing





Nominal Size	2"	2.5"	3"	4"	6"
Α	13"	13"	13"	13"	13"
B (Ball Valve)	13"	13¾"	15¾"	19½"	20"
B (Test & Drain)	13½"	141/4"	161⁄4"	19"	20¾"
С	51/4"	5"	5½"	7"	81/4"
D	91⁄4"	9½"	9½"	10³/8"	11"
E (Ball Valve)	5 <sup>5</sup> /8"	71/8"	97/8"	12 <sup>1</sup> /8"	13½"
E (Test & Drain)	10"	101/4"	121/4"	14¾"	14½"





**UL Listed Under Designation: EX15816** 



**Test and Drain** 







PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



## SHOTGUN RISER CHECK VALVE

• Designed to be compact, lightweight & cost effective

• Grooved end connections for easy installation

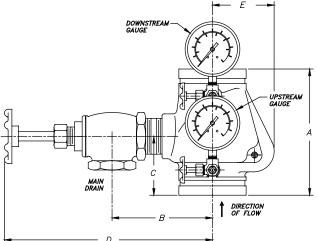
Non-slamming spring loaded clapper to prevent water hammer

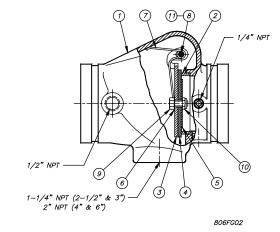
• Approved for vertical or horizontal operation

- Designed for low friction loss
- EPDM non-stick leak tight sealing
- All Stainless steel wetted parts to provide superior corrosion resistance
- Rated for 300 psi









Size	Α	В	С	D	E
2"	6.65"	5"	31/4"	9½"	<b>2</b> ½"
<b>2</b> ½"	7"	5"	31/4"	9½"	3"
3"	8"	5"	31/4"	9½"	3½"
4"	8¾"	7"	<b>4</b> ½"	13½"	<b>4</b> ½"
6"	10¾"	8"	6"	14½"	<b>4</b> ¾"
8"					

	MATERIAL LIST	
1	Valve Body Gray Iron, ASTM-A48 Class 30A	
2	2 Seat Bronze C83600 or C93200, ASTM-B505	
3	Clapper Stainless Steel 304, ASTM-A240	
4	Facing Seal ** EPDM Rubber	
5	Clamping Ring Stainless Steel 304, ASTM-A240	
6	6 Gasket ** EPDM Rubber	
7	Spring Stainless Steel 302, ASTM-A313	
8	Hinge Pin Stainless Steel 303, ASTM-A582	
9	Bolt Stainless Steel 304, ASTM-F593	
10	Locknut ** Stainless Steel 303, ASTM-F594	
11	Plug, ½"NPT Steel	

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
ENGINEER:	☐ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



## GROOVED CHECK VALVE

- Installed in both horizontal or vertical line with upward flow
- Easier and faster to maintain and install
- Low pressure drop
- EPDM non-stick leak tight sealing
- All Stainless steel wetted parts to provide superior corrosion resistance
- FM Approved and UL/ULC Listed
- Pressure rated to 350 psi



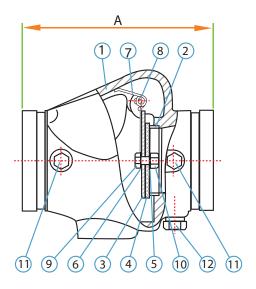


### **GROOVED CHECK VALVE**

Inches	Α	Weight
2	6.65	5.6
2.5	7.2	8.9
3	7.8	13.3
4	8.58	19.9
5	10.51	33.6
6	10.63	41.9
8	12.8	77.2
10	17	92.59
12	19.49	149.91



UL Listed Under Lansdale: HMER. EX26984



### **MATERIAL SPECIFICATIONS**

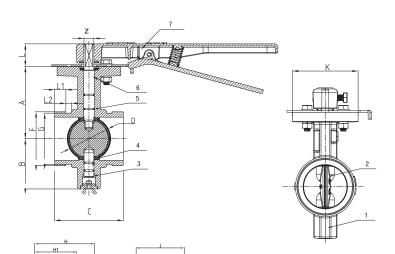
PART	SPECIFICATIONS
1. BODY	DUCTILE IRON ASTM A 536
2. SEAT	BRONZE
3. CLAPPER	STAINLESS STEEL 304
4. FACING SEAL	EPDM RUBBER
5. CLAMPING RING	STAINLESS STEEL 304
6. GASKET	EPDM RUBBER
7. SPRING	STAINLESS STEEL 304
8. HINGE PIN	STAINLESS STEEL 304
9. BOLT	STAINLESS STEEL 304
10. LOCKNUT	STAINLESS STEEL 304
11. PLUG ¼" NPT	CARBON STEEL
12' PLUG ½" NPT	CARBON STEEL

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
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ENGINEER:	□ NOT APPROVED
SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



## **BUTTERFLY VALVE/STYLE 700**

- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211
- Lever operated 10 position lockable handle or gear operated Suitable for HVAC and Industrial Applications
- Working Pressure: 300 psi
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request
- NSF/ANSI 61 NSF/ANSI 372





### MATERIAL SPECIFICATION

PART NO.	PART	STANDARD SPECIFICATION	OPTIONS
1	Valve Body	ASTM A536, 65-45-12	
2	Disc	ASTM A536, 65-45-12+EPDM	ASTM A536, 65-45-12+NBR
3	O-Ring	NBR	EPDM
4	Stem	Stainless Steel	AISI 304, AISI 316, AISI 420, AISI 431
5	O-Ring	NBR	EPDM
6	Stem	Stainless Steel	AISI 304, AISI 316, AISI 420, AISI 431
7	Lever	ASTM A536, 65-45-12	Aluminum
8	Gear Box	ASTM A536, 65-45-12	

	DIMENSIONS (INCHES)																
SIZE	Α	В	С	D	F	G	L1	L2	L	К	Н	H1	H2	J	M	z	Е
2"	3.5	2.56	3.20	2.0	2.37	2.25	.625	.31	1.25	3.54	8.10	6.22	2.0	4.50	5.90	.55	2.75
2.5"	4.0	2.80	3.82	2.40	2.87	2.72	.625	.31	1.25	3.54	8.10	6.22	2.0	4.50	5.90	.55	2.75
3"	4.30	3.20	3.82	3.00	3.50	3.34	.625	.31	1.25	3.54	8.10	6.22	2.0	4.50	5.90	.55	2.75
4"	5.0	3.75	4,57	3,88	4.50	4.33	.625	.375	1,25	3.54	8.10	6.22	2,0	4.50	5.90	.63	2.75
5"	5.55	4.37	5.83	4.83	5.56	5.40	.625	.375	1.25	3.54	8.10	6.22	2.0	4.50	5.90	.63	2.75
6"	6.0	5.24	5.83	5.83	6.63	6.46	.625	.375	1.25	3.54	8.10	6.22	2.0	4.50	5.90	.79	4.0
8"	7.25	6.46	5.25	7.84	8.63	8.44	.75	.44	1.77	4.92	12.20	9.40	2.70	6.58	11.80	1.02	4.0
10"	8.50	7,72	6,25	9,92	10.75	10.56	.75	.50	1.77	4,92	12,20	9.40	2,70	6.58	11.80	1.02	4.0
12"	10.0	8.90	6.50	11.83	12.75	12.53	.75	.50	1.77	4.92	12.20	9.0	2.87	7.48	11.80	1.10	4.0
14"	11.4	9.50	7.00	12.75	14.85	14.62	.94	.50	1.77	5.90	12.20	9.0	2.87	7.48	11.80	1.25	4.92

\*Note: Valve must not be installed with disc in full open position. Disc must be partly closed so that no part is protruding beyond end of valve body.

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
ADDRESS:	☐ APPROVED AS NOTED
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SUBMITTAL DATA:	REMARKS:
NOTES 1:	
NOTES 2:	



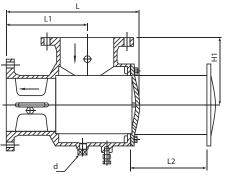
## SUCTION DIFFUSER

## **STYLE - 720**

- Pump Protection Fitting: Reducing elbow, protective strainer, and flow straightener
- Removable 20 mesh start up screen
- Oversized diffuser screen
- Creates uniform flow to pump
- Working Pressure: 232 psi
- Working Temp: -14º F to 250º F
- Internally and externally liquid epoxy painted or fusion bonded epoxy powder coated (FBE)
- Avaliable from 2" thru 24" in straight and reducing sizes
  - \*Note: For sizes and dimensional data please see the submittal sheet

Part Name	Material	ASTM Spec.			
Body	Cast Iron	A126 Class B			
Cover	Cast Iron	A126 Class B			
Screen	Stainless Steel	AISI 304			
Stud & Nuts	Carbon Steel	ASTM A307B			

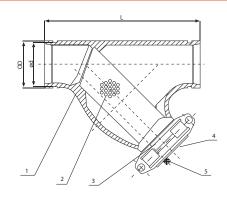




## Y Strainer Style - 760

## • Connection Ends: Groove to AWWA C606

- Working Pressure: 300 psi
- Working Temperature: 0°C 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

PART NO.	PART	STANDARD SPECIFCATION	OPTIONS
1	Valve Body	ASTM A536, 65-45-12	
2	Screen	AISI 304	AISI 316
3	Rigid Coupling	ASTM A536, 65-45-12	
4	Сар	ASTM A536, 65-45-12	
5	Plug	Malleable Iron Galvanized	Bronze ASTM B584



### **DIMENSIONS (INCH)**

Size	L	OD	D
2"	9.75	2.40	2.25
2.5"	10.75	2.90	2.72
3"	11.75	3.50	3.35
4"	14.25	4.50	4.33
5"	16.5	5.56	5.40
6"	18.5	6.63	6.50
8"	24.0	8.63	8.45
10"	27.0	10.75	10.56
12"	30.0	12.75	12.53

PROJECT	APPROVAL STAMP
PROJECT:	☐ APPROVED
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NOTES 2:	