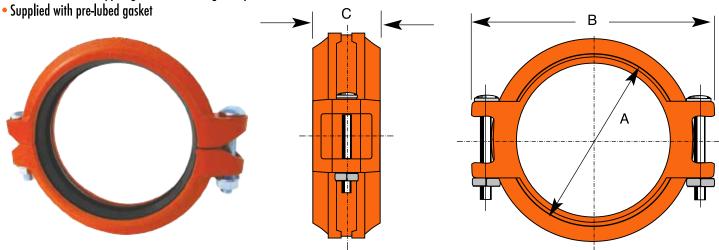


## www.gemlockgrooved.com

### RIGID COUPLING - STYLE 5

- Provides joint rigidity, for the support and hanging requirements of ANSI B31.1 Power Piping Code; ANSI B31.9
   Building Service Pipe Code and NFPA 13 Sprinkler Systems
- Tongue and groove arrangements in housings do not permit expansion, contraction or deflection
- Available with hot dipped galvanized coatings as optional



1	Pipe	Max	Allow	Dii	mensions (I	n.)	Approx.	
Nominal Size	Actual Size (In.)	Working Pressure (psi)*	Pipe End Separation (In.)§	А	В	С	Weight Each (lb.)	
1"	1.315	400	0.10	2.188	3.858	1.732	1.2	
1 1⁄4"	1.660	400	0.10	2.535	3.897	1.732	1.5	
1½"	1.900	400	0.10	2.803	3.858	1.732	1.7	
2"	2.375	400	0.10	3.283	5.00	1.732	1.9	
2½"	2.875	400	0.10	3.842	5.433	1.732	1.9	
3"	3.500	400	0.10	4.574	6.535	1.772	2.4	
4"	4.500	400	0.16	5.416	7.598	1.889	3.2	
5"	5.563	300	0.16	6.771	8.818	1.889	4.5	
6"	6.625	300	0.16	7.874	9.921	1.889	5.8	
8"	8.625	300	0.19	10.11	12.367	2.362	10.8	



UL Listed Under File No. EX15592

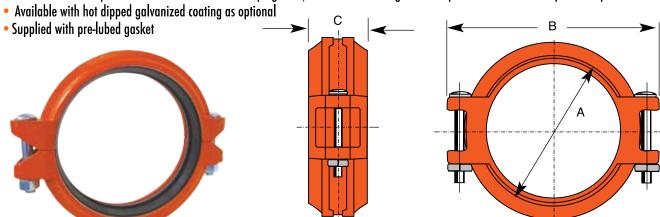
#### NOTES:

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
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



Pipe		Max Allow Working Pipe End		Max Defle Center		Di	n.)	Approx. Weight	
Nominal Size	Actual Size (In.)	Pressure (psi)*	Separation (in.)§	Per Coup. Deg.	Pipe (In.)	Α	В	С	Each (lb.)
1"	1.315	400	0.10	5°-26'	1.14	2.188	3.858	1.73	1.2
11⁄4"	1.660	400	0.10	4°-19'	0.90	2.535	3.897	1.732	1.3
1½"	1.900	400	0.10	3° <b>-</b> 46'	0.79	2.803	4.527	1.732	1.5
2"	2.375	400	0.10	3°-1'	0.62	3.283	5.00	1.732	1.7
2½"	2.875	400	0.10	2°-29'	0.52	3.842	5.433	1.732	2.0
3"	3.500	400	0.10	2°-3'	0.43	4.574	6.535	1.772	2.6
4"	4.500	400	0.16	3°-11'	0.67	5.614	7.598	1.889	4.1
5"	5.563	300	0.16	2°-35'	0.54	6.771	8.818	1.889	5.7
6"	6.625	300	0.16	2°-10'	0.46	7.874	9.921	1.889	6.1
8"	8.625	300	0.19	1°-40'	0.34	10.71	12.637	2.362	11.9
10" *	10.75	300	0.19	0°-95'	0.13	12.91	16.54	2.52	21.5

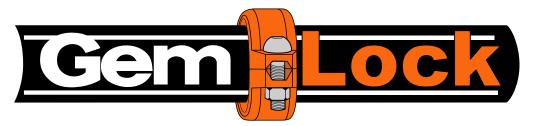


NOTES:

\*Standard weight coupling

UL Listed Under File No. EX15592

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



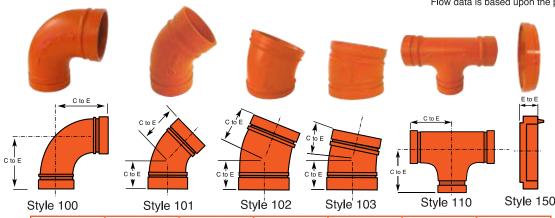
## www.gemlockgrooved.com

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

- All fittings are full flow design
- Pressure ratings of fittings tested to an operating pressure of 500 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

	FLOW DATA Frictional Resistance (Expressed as equivalent Straight Pipe in Ft.)										
Nominal	Elb	ow	Te	ее	Nominal	Elb	ow	Tee			
Size (In.)	90° E <b>l</b> bow	45° E <b>l</b> bow	Branch	Run	Size (In.)	90° E <b>l</b> bow	45° E <b>l</b> bow	Branch	Run		
11/4	2.3	1.2	5.8	2.3	5	8.4	4.2	21.0	8.4		
1½	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		
21/2	4.1	2.1	10.3	4.1	10	16.7	8.4	41.8	16.7		
3	5.1	2.6	12.8	5.1	12	20.0	10.0	50.0	20.0		
4	6.7	3.4	16.8	6.7							

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



Pi	pe	90° E No.	lbow - 100		lbow - 101		∃lbow - 102	11¼° Elbow - No.103		Equal Tee - No.110		End Cap - No.150	
Nominal Size (In.)	Actual Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	E to E (In.)	Approx. Wgt. Ea. (lb.)
11/4	1.660	2.75	0.9	1.75	0.6	1.75	0.7	1.38	0.5	2.75	1.4	.866	0.12
1½	1.900	2.75	1.1	1.75	1.0	1.75	0.8	1.38	0.7	2.75	1.8	.866	0.16
2	2.375	3.25	1.9	2.00	1.3	1.88	1.5	1.38	0.9	3.25	2.8	.866	0.26
2½	2.875	3.75	3.0	2.00	2.2	2.00	1.9	1.50	1.5	3.75	4.4	.866	0.37
3	3.500	4.25	4.7	2.50	3.2	2.25	3.2	1.50	2.0	4.25	6.5	.866	0.52
4	4.500	5.00	7.8	3.00	5.5	2.87	5.3	1.75	3.3	5.00	11.8	.99	0.70
5	5.563	5.50	12.1	3.25	8.5	2.88	7.2	2.00	5.0	5.50	19.2	.99	1.14
6	6.625	6.50	16.5	3.50	12.5	3.13	11.4	2.00	7.4	6.50	24.0	.99	1.68
8	8.625	7.75	33.1	4.25	21.8	3.88	17.8	2.00	10.0	7.75	51.8	1.181	3.51
10	10.750	9.00	61.1	4.75	28.9	4.38	30.0	2.13	14.5	9.00	77.1	1.259	26.0



UL Listed Under File No. EX15591

#### NOTES:

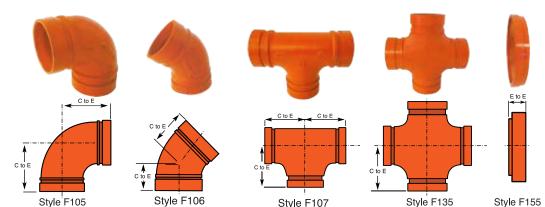
PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



## www.gemlockgrooved.com

# **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 lbs. operation with a 5 to 1 safety factor
- Made of durable, high-strength ductile iron conforming to ASTM A536; every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Usage of these fittings with Style 5, Style 12 and Style 25 couplings should be evaluated properly due to bolt pad interference of couplings



FLOW DATA Frictional Resistance (Expressed as equivalent Straight Pipe in Ft.)										
Nominal	90° E	bow	45° E	bow		Te	е			
Size	STD	F105	STD	F106	Bra	nch	R	un		
(ln.)	0.5	1 100	310	1 100	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.

,			•		,-	01107		01,101		01,101.00		
Pip	ре	90° E <b>l</b> bow	- No.F105	45° Elbow	- No.F106	Equal Tee - No.F107		Cross - No.F135		End Cap - No.F155		
Nominal Size (In.)	Actual Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	C to E (In.)	Approx. Wgt. Ea. (lb.)	E to E (In.)	Approx. Wgt. Ea. (lb.)	
11/4	1.660	2.362	0.9	1.732	0.5	2.362	1.0	-	-	.866	0.4	
1½	1.900	2.362	1.1	1.732	0.9	2.362	1.5	-	-	.866	0.5	
2	2.375	2.755	1.3	2.007	1.1	2.755	1.9	2.755	2.2	.866	0.6	
2½	2.875	3.00	2.0	2.007	1.8	3.00	2.6	3.00	3.3	.866	0.7	
3	3.500	3.5	2.6	2.519	2.2	3.5	4.2	3.5	5.1	.866	1.1	
4	4.500	4.00	5.1	2.992	4.0	4.00	6.6	4.00	7.5	.99	1.8	
5	5.563	4.803	6.8	3.543	6.4	4.803	9.0	4.803	13.7	.99	2.9	
6	6.625	5.50	12.8	3.74	9.3	5.50	20.9	5.5	19.7	.99	4.2	
8	8.625	6.80	22.7	4.881	16.3	6.95	32.9	7.047	34.4	1.181	7.9	



UL Listed Under File No. EX15591

#### NOTES:

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	

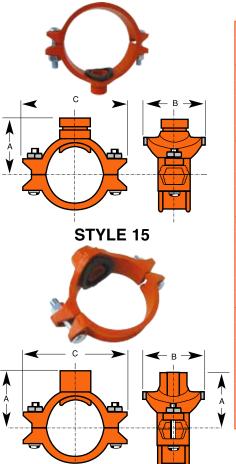


www.gemlockgrooved.com

## 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.



Run Size	Outlet Size	Max	Hole D	iameter	Grooved	Grooved Dimensions (In.)			ed Dimens	sions (In.)	Approx. We	ight Each
(In.)	(ln.)	Working Pressure (psi)*	Hole Saw (in.)	Max Perm. (In.)	Grvd. A	В	С	Thrd. A	В	С	Grvd. lb.	Thrd. lb.
	1/2	300	1.50	1.63	-	-	-	2.36	2.71	2.77	-	2.5
	3/4	300	1.50	1.63	-	-	-	2.36	2.71	2.87	-	2.2
2	1	300	1.50	1.63	-	-	-	2.36	2.71	4.57	-	2.4
	1-1/4	300	1.75	1.81	2.32	2.71	4.57	2.36	2.71	4.57	2.5	2.5
	1-1/2	300	1.75	1.81	2.32	2.71	4.57	2.36	2.71	4.57	2.5	2.5
	1/2	300	1.50	1.63	-	-	-	2.76	3.03	5.67	-	3.5
	3/4	300	1.50	1.63	-	-	-	2.76	3.03	5.67	-	3.3
21/2	1	300	1.50	1.63	-	-	-	2.76	3.03	5.67	-	3.3
	1-1/4	300	2.00	2.13	3.16	2.76	5.67	2.76	3.27	5.67	-	3.5
	1-1/2	300	2.00	2.13	3.16	2.76	5.67	2.76	3.27	5.67	-	3.5
	1/2	300	1.50	1.63	-	-	-	3.23	3.03	5.98	-	4.0
	3/4	300	1.50	1.63	-	-	-	3.23	3.03	5.98	-	3.9
3	1	300	1.50	1.63	2.76	3.07	5.98	3.23	3.03	5.98	-	3.9
0	1-1/4	300	2.00	2.13	2.76	3.23	5.98	3.23	3.27	5.98	4.2	4.2
	1-1/2	300	2.00	2.13	2.76	3.58	5.98	3.23	3.62	5.98	4.2	4.2
	2	300	2.50	2.63	3.23	2.40	5.98	3.23	3.90	5.98	4.2	4.3
	1/2	300	1.50	1.63	-	-	-	3.43	7.25	6.77	-	5.3
	3/4	300	1.50	1.63	-	-	-	3.43	7.25	6.77	-	5.1
	1	300	1.50	1.63	3.66	3.03	7.40	3.43	3.03	6.77	-	4.9
4	1-1/4	300	2.00	2.13	3.66	3.27	7.32	3.43	3.27	6.77	5.4	5.1
4	1-1/2	300	2.00	2.13	3.66	3.62	7.32	3.43	3.62	6.77	4.8	5.1
	2	300	2.50	2.63	3.66	3.82	7.40	3.43	3.81	6.77	5.1	4.8
	2-1/2	300	3.00	3.05	3.66	4.41	7.40	3.43	4.41	6.77	5.3	5.1
	3	300	3.50	3.63	3.66	4.80	7.40	3.43	4.80	6.77	6.4	6.4

UL Listed Under File No. EX15592

STYLE 16 NOTES:

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



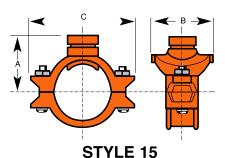
## www.gemlockgrooved.com

## **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.

Run Size

8





#### UL Listed Under File No. EX15592

Max Perm.

2.88

3.63

Grooved Dimensions (In.)

2	87	9.0	10.
2½	117	11.0	12.
3	173	13.5	15.
4	346	20.0	22.

Threaded Dimensions (In.)

3.27

3.62

3 82

4.41

4.80

3.27

3.62

3.82

4.41

4 80

5.20

3.82

4.41

4.80

PERFORMANCE DATA

Values

18

22

39

OUTLET

Nominal

(In.)

3/4

11/4

Equiv. Feet of Pipe

Grvd

5.5 7.0

8.27

8.27

8.27

8.27

8.27

8.66

8.66

8.66

8.66

8 66

12.20

12.20

12.20

12.20

Female

4.0

5.0 6.0

8.0 .5

.5

Grvd.

6.0

6.2

66

7.5

8.3

8.2

7.5

7.7

7.7

9.0

11.0

10.0

12.3

Approx. Weight Each

Thrd.

6.8

68

7.9

8.2

7.7

7.9

8.2

88

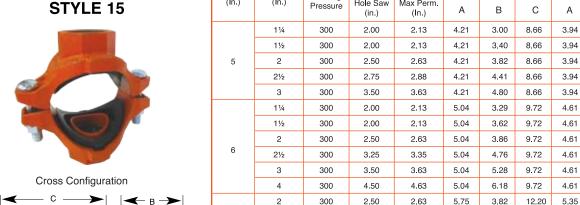
12.8

11.5

10.8

12.5

13.2



21/2

3

4

Outlet Size

Max

Working

300

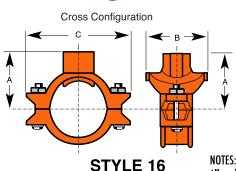
300

Hole Saw

2.75

3.50

4.50



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. For dry systems, TRI Seal gaskets are recommended. EPDM gasket is supplied as standard. For other gaskets contact us.

5.75

5.75

5.75

4.41

4.80

5.28t

12.20

12.20

12.20

5.35

5.35

5.35

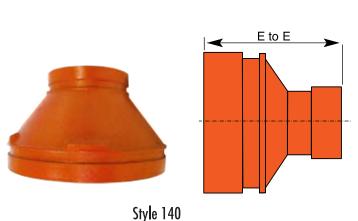
PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



## RD CONCENTRIC REDUCER

- · All fittings are full flow design
- Pressure ratings of fittings tested to an operating pressure of 500 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

See Style 140TM and 140TF for threaded outlet.



-				
0		ſ		



UL Listed Under File No. EX15591

Concentric Reducer - No.140				
Nominal Size (In.)	E to E (in.)	Approx. Wgt. Ea. (lb.)		
1¼ x 1	2.50	0.6		
1½ x 1	2.50	0.8		
2 x 1	2.50	0.7		
2 x 1¼	2.50	1.2		
2 x 1½	2.50	1.0		
2½ x 1	2.50	3.6		
2½ x 1¼	2.50	3.3		
2½ x 1½	2.50	3.6		
2½ x 2	2.50	3.9		
3 x 1	2.50	1.3		
3 x 1¼	2.50	3.0		
3 x 1½	2.50	5.1		
3 x 2	2.50	1.6		
3 x 2½	2.50	1.8		
4 x 1	3.00	3.0		
4 x 1¼	3.00	4.6		
4 x 1½	3.00	6.9		
4 x 2	3.00	2.4		
4 x 2½	3.00	2.7		
4 x 3	3.00	3.2		
5 x 2 4.02 4.				

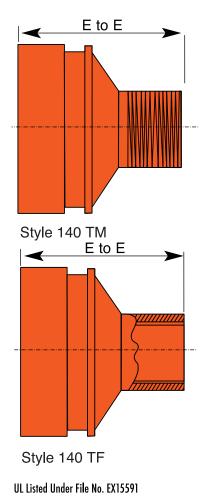
Concentric Reducer - No 140			
Nominal Size (In.)	E to E (in.)	Approx. Wgt. Ea. (Ib.)	
5 x 2½	4.02	4	
5 x 3	4.02	4	
5 x 4	4.02	4	
6 x 2	4.02	4	
6 x 2½	4.02	4	
6 x 3	4.02	4	
6 x 4	4.02	4	
6 x 5	4.02	4	
8 x 3	5.00	9.3	
8 x 4	5.00	10.4	
8 x 5	5.00	13.7	
8 x 6	5.00	14.3	
10 x 3	6.10	2.8	
10 x 4	6.10	13.0	
10 x 5	6.10	13.2	
10 x 6	6.10	14.1	
10 x 8	6.10	16.5	

#### **NOTES:**

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



## **CONCENTRIC REDUCER - STYLE 140 TF, TM**



2 x 1	2.5 2.5 2.5	1.39 0.74
	2.5	0.74
2 x 1½		0.74
2½ 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
3 x 1	2.5	1.59
3 x 1¼	2.5	1.59
3 x 1½	2.5	1.59
3 x 2	2.5	1.38
4 x 1	3	2.28
4 x 1¼	3	2.28
4 x 1½	3	2.28
4 x 2	3	2.28
6 x 1	4	6.92
6 x 1¼	4	6.92
6 x 1½	4	6.92
6 x 2	4	6.92

#### **NOTES:**



PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
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Engineer:	Remarks:
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## www.gemlockgrooved.com

### DRAIN ELBOW - STYLE F100D & F105D

Approx. Wgt. Ea.

(lb.)

3.8

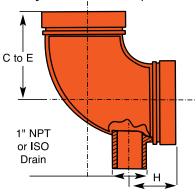
5.2

5.3

8.8

18.7

- 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
- Pressure rating of 300 lbs. with a 5 to 1 safety factor



Drain Elbow-Standard Style F100D

Dimensions (In.)

2.75

2.75

2.75

2.75

2.75

C to E

3.25

3.75

4.25

5.00

6.50

Drain Elbow-Standard - Style F100D

Actual

Size (In.) 2.375

2.875

3.500

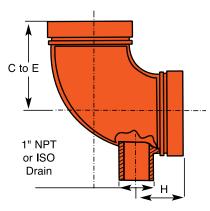
4.500

6.625



FLOW DATA Equivalent Feet of Straight Pipe		
Nominal Size (In.)	90° Elbow	
	STD	Short Pattern
2	3.5	3.2

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



Drain Elbow-Short Pattern Style F105D

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

Pipe		Dimensions (In.)		Approx.
Nominal Size (In.)	Actual Size (In.)	C to E	Н	Wgt. Ea. (lb.)
2	2.375	2.75	2.00	1.0
2½	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

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#### NOTES:

Nominal

Size (In.)

21/2

3

4



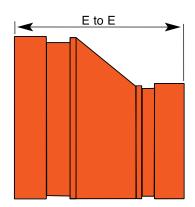
PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	



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#### **ECCENTRIC REDUCER - STYLE 145**

- All fittings are full flow design
- Pressure ratings of fittings tested to an operating pressure of 500 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



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 11/4	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. For dry systems, TRI Seal gaskets are recommended. EPDM gasket is supplied as standard. For other gaskets contact us.

— UL Listed Under File No. EX15591

PROJECT INFORMATION

Project:
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Address:
Approved as noted
Contractor:
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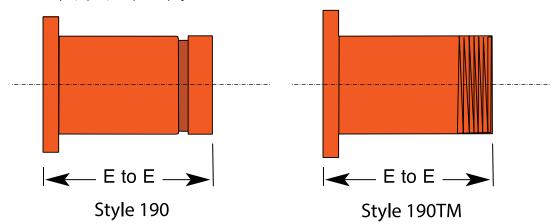




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### FLANGE ADAPTERS - STYLE F190 & STYLE F190 TM

- Conforms to Class ANSI 125 lb. flange
- Available with an external threaded or grooved end
- Every lot is metallurgically tested for compliance
- Available with hot dipped galvanized coating
- Pressure ratings of fittings conform to those of Style 5, Style 12, and Style 25 couplings



Nominal Size (In.)	Actual Size (In.)	E to E (In.)	Approx. Wgt. Ea. (lb.)
2	2.375	4.0	6.6
2½	2.875	4.0	8.8
3	3.500	4.0	11.0
4	4.500	6.0	19.8
5	5.563	6.0	22.0
6	6.625	6.0	28.6
8	8.625	6.0	43.0
10	10.750	8.0	60.5



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#### **NOTES:**

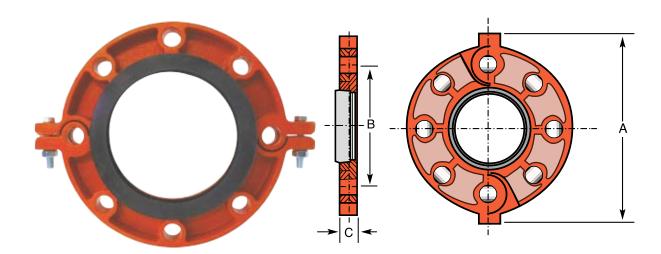
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### GROOVED FLANGE

- 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 as optional

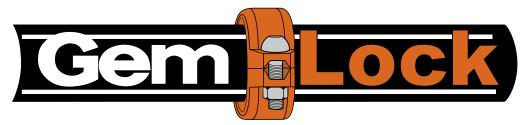


Pi	ре	Max		Sealing Su	ırface (In.)		imensions	(ln.)	Approx.
Nominal Size	Actual Size	Working Pressure	Number and Bolt Size	X Min.	Y Max.	Α	В	С	Wt. Each
Size	(ln.)	(psi)*				ANSI	ANSI		(lb.)
2"	2.375	300	4-5/8 x 2½	3.09	2.42	8.110	4.763	0.866	3.0
2½"	2.875	300	4-5/8 x 3	3.58	2.92	9.055	5.511	0.866	4.2
3"	3.500	300	4-5/8 x 3	4.21	3.56	9.527	5.984	0.944	4.4
4"	4.500	300	8-5/8 x 3	5.26	4.57	11.023	7.519	0.944	8.4
5"	5.563	300	8-¾ x 3½	6.41	5.65	12.795	8.503	0.964	9.0
6"	6.625	300	8-¾ x 3½	7.48	6.71	XX.110	X.763	X.866	10.4
8"	8.625	300	8-¾ x 3½	9.58	8.70	16.311	11.751	1.181	19.8



#### **NOTES:**

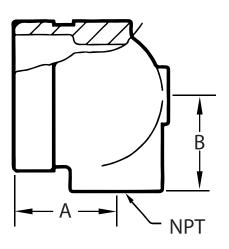
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## 90° ADAPTER ELL

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





Nominal Size	Max. Work	Dimensions in.			
Inch	Press. psi	Α	В		
1¼ x ½	500	1.77	1.20		
1¼ x ¾	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		



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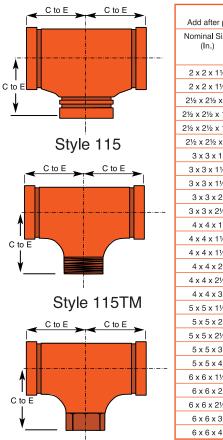
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### **REDUCER TEE - SHORT PATTERN - STYLE 115**

- All fittings are full flow design
- Pressure ratings of fittings tested to an operating pressure of 500 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



Style 115TF

Add after part i	number the le			ee - No.115 ernal or TM for e	xternal thread	d
Nominal Size (In.)	C to E (In.)	Approx. Wgt. Ea. (lb.)		Nominal Size (In.)	C to E (In.)	
2 x 2 x 11/4	2.76	2.7	Ш	6 x 6 x 5	5.60	ſ
2 x 2 x 1½	2.76	2.7	Ш	6½ x 6½ x 2	5.60	Γ
2½ x 2½ x 1	3.00	4.8	Ш	6½ x 6½ x 2½	5.60	ſ
2½ x 2½ x 1¼	3.00	4.8	Ш	6½x 6½x 3	5.60	
2½ x 2½ x 1½	3.00	5.1	Ш	6½x 6½x 4	5.60	ſ
2½ x 2½ x 2	3.00	5.1	Ш	8 x 8 x 1½	7.05	ſ
3 x 3 x 1	3.38	5.8	Ш	8 x 8 x 2	7.05	ſ
3 x 3 x 11/4	3.38	6.4	Ш	8 x 8 x 2½	7.05	Γ
3 x 3 x 1½	3.38	7.5	Ш	8 x 8 x 3	7.05	ſ
3 x 3 x 2	3.38	8.4	Ш	8 x 8 x 4	7.05	ľ
3 x 3 x 2½	3.38	8.6	Ш	8 x 8 x 5	7.05	ſ
4 x 4 x 1	4.00	7.8	Ш	8 x 8 x 6	7.05	Ī
4 x 4 x 11/4	4.00	9.6	Ш	8 x 8 x 6½	7.05	ľ
4 x 4 x 1½	4.00	10.2	Ш	10 x 10 x 2	8.46	ſ
4 x 4 x 2	4.00	10.4	Ш	10 x 10 x 2½	8.46	ſ
4 x 4 x 2½	4.00	11.4	Ш	10 x 10 x 3	8.46	ľ
4 x 4 x 3	4.00	11.6	Ш	10 x 10 x 4	8.46	Γ
5 x 5 x 1½	4.80	14.3	Ш	10 x 10 x 5	8.46	Γ
5 x 5 x 2	4.80	14.5	Ш	10 x 10 x 6	8.46	ſ
5 x 5 x 2½	4.80	15.2	Ш	10 x 10 x 8	8.46	ſ
5 x 5 x 3	4.80	15.4	Г			
5 x 5 x 4	4.80	16.1		Style 115TM		
6 x 6 x 1½	5.60	24.0		outlet size. I	√ax workin	ıĆ
6 x 6 x 2	5.60	26.4				
6 x 6 x 2½	5.60	26.5				

26.5

29.3

	FLOW DATA Frictional Resistance								
(1	Expressed as equivalent Straight Pipe in Ft.)								
Nominal Reducer Tee Nominal Reducer Tee									
Size (In.)	Branch	Size Run (In.)		Branch	Run				
11/4	5.8	2.3	5	21.0	8.4				
1½	6.7	2.7	6	25.3	10.1				
2	8.6	3.4	8	33.3	13.3				
2½	10.3	4.1	10	41.8	16.7				
3	12.8	5.1							
4	16.8	6.7							

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

Style 115TM and 115TF are available up to 8" run size and 21/2" outlet size. Max working pressure of Threaded Tee is 300 psi.

77.2

Approx. Wgt. Ea. (lb.) 30.9

> 26.4 26.5 24.0 25.0

> 33.0 33.5 39.0 33.6

47.4

48.3 49.8 50.5 84.9 83.8 82.7 79.4



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#### NOTES:

5.60

5.60

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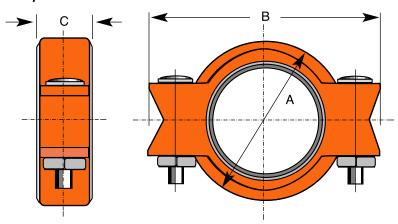
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## REDUCING COUPLING - STYLE 25

- Replaces two couplings and in-line reducer (concentric or eccentric)
- Available with hot dipped galvanized coating as optional

#### **HEAD LOSS**

Size	Flow 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, 
$$C = \frac{2GH_L}{V^2}$$

H<sub>L</sub> = Head Loss in feet

V = Velocity in smaller pipe in feet/sec.

G = Acceleration due to gravity = 32.2 feet/sec.



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Pipe	Max Working	Allow Pipe End Separation (in.)§		Center Line § Weig						Approx. Weight
Nominal Size	Pressure (psi)*		Per Coup. Deg.	Pipe (In.)	Α	В	С	Each (lb.)		
1½" x 1¼"	300	0.12	1°-53'	0.40	2.88	4.55	1.77	2.2		
2" x 11/4"	300	0.12	1°-53'	0.40	3.543	5.079	1.85	2.2		
2" x 1½"	300	0.12	1°-33'	0.40	3.543	5.079	1.85	2.0		
2½" x 2"	300	0.12	1°-33'	0.32	3.976	5.394	1.89	3.1		
3" x 2"	300	0.12	1°-17'	0.26	4.724	6.45	1.89	4.0		
3" x 2½"	300	0.12	1°-17'	0.26	4.72	6.457	1.89	3.7		
4" x 2"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	6.4		
4" x 2½"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	6.2		
4" x 3"	300	0.25	2°-38'	0.55	5.906	7.677	1.929	5.5		
5" x 4"	300	0.25	2°-5'	0.44	6.969	8.74	1.909	10.8		
6" x 4"	300	0.25	1°-44'	0.38	7.992	9.252	1.969	11.0		
8" x 6"	300	0.25	1°-15'	0.26	10.394	12.32	2.362	18.5		

#### **NOTES:**

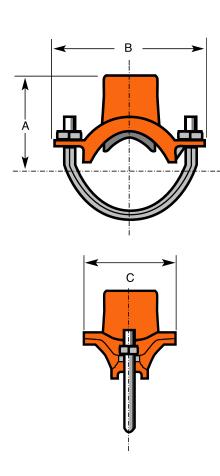
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### TEE LOCK - STYLE 13

- Molded gasket for each header size is made to last and insure a leak tight connection
- Wrap around casting is combined with a high tensile U-bolt flattened to prevent pipe deformation
- 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



Nominal Size	Max. Work	Hole	Dimer	nsions in	ches
Inch	Press. psi	Saw inch	А	В	С
1¼ x ½	300	<b>1</b> 3/16	1.693	3.543	2.205
1¼ x ¾	300	<b>1</b> 3/ <sub>16</sub>	1.772	3.543	2.205
1¼ x 1	300	<b>1</b> 3/ <sub>16</sub>	1.969	3.543	2.20
1½ x ½	300	<b>1</b> 3/ <sub>16</sub>	1.693	3.661	2.323
1½ x ¾	300	<b>1</b> 3/ <sub>16</sub>	2.126	3.661	2.323
1½ x 1	300	<b>1</b> 3/ <sub>16</sub>	2.283	3.661	2.323
2 x ½	300	<b>1</b> 3/16	2.126	3.780	2.323
2 x ¾	300	<b>1</b> 3/ <sub>16</sub>	2.205	3.780	2.323
2 x 1	300	<b>1</b> 3/ <sub>16</sub>	2.598	3.780	2.323
2½ x ½	300	<b>1</b> 3/16	2.362	4.331	2.323
2½ x ¾	300	<b>1</b> 3/16	2.480	4.331	2.323
2½ x 1	300	<b>1</b> 3/ <sub>16</sub>	2.756	4.331	2.323
3 x ½	300	<b>1</b> 3/16	2.402	4.331	2.323
3 x ¾	300	<b>1</b> 3/16	2.638	4.331	2.323
3 x 1	300	<b>1</b> 3/16	2.913	4.331	2.323



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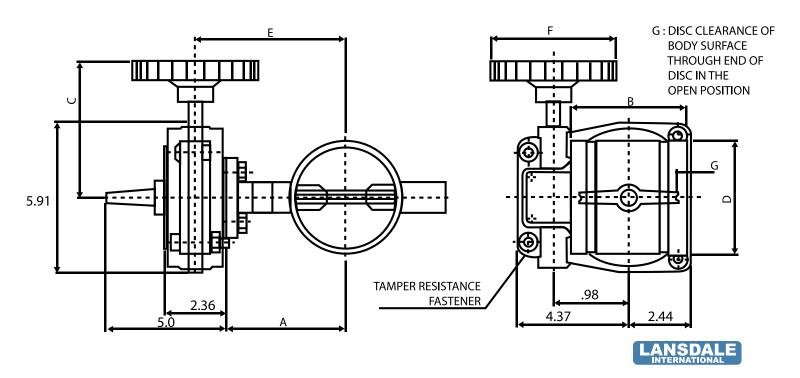
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## **GROOVED BUTTERFLY VALVE**

DIMENSION DATA				UNI	T: IN		
	Α	В	C	D	Е	F	G
2 1/2	4.13	3.80	5.31	2.87	5.31	5.04	
3	4.41	3.87	5.31	3.50	5.59	5.04	
4	5.71	4.54	5.31	4.50	6.90	5.04	
6	7.05	5.21	7.60	6.63	8.23	8.66	.27
8	8.03	5.80	7.60	8.63	9.21	8.66	.95

#### Features:

- Rated 300psi/ 20.7 BAR
- 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



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# POWERBALL 300 SPRINKLER CONTROL VALVE

#### Features:

- Rated 300psi
- UL Listed/FM Approved
- Indoor/ Outdoor use
- Integral tamper switch
- Eliminates water hammer
- Slow open/ Slow close

N	MAIN DIMENSIONS - UNIT: INCHES						
		LPB	G (Gro	oved E	nds)		
Si	ize   1"  1-1/4" 1-1/2"   2"  2-1/2"						
Δ	\	N/A	3.86	4.02	4.09	4.49	
F	1	N/A	5.20	5.47	6.07	6.58	
P	)	N/A	0.63	0.63	0.63	0.63	
C	)	N/A	0.31	0.31	0.31	0.31	
M	1	N/A	1.54	1.78	2.25	2.72	
L	-	N/A 1.67 1.90 2.37 2.87					
	MATERIAL LIST						
NO		NAME		MATER	IAL LIS	Т	
1	BOI	ΟY	BRON	IZE AST	M 584 (	C83600	
2	DIS	С	SS30	4			
3	HAN	NDWHE	EL ASTM	1 A216 \	NCB		
4	4 SEAT ASTM D2000 VITON						
5	5 INDICATOR POWDER METAL FD0205 95HT						
6	6 HOUSING BRASS ASTM B16 C36000						
7	7 COVER BRASS ASTM B16 C36000						
NOT	NOTE: Grooved ends to AWWA C606 for steel pipe.						

Packing Gland with Adjustable Glands shall be accessible for tightening stem seals without

disassemble of the valve or operator parts U.S. Patented 6629.683.82

4. 65±0. 12

300 CWP



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Engineer: Remarks:

Submittal Data:
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# 350 PSI GROOVED-END SWING 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 & UL/ULC Listed

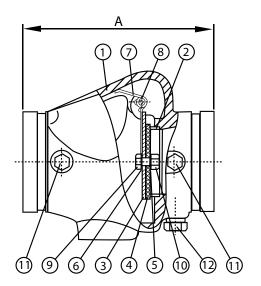


PART	SPECIFICATION
1. Body	Ductile Iron ASTM A 536
2. Seat	Bronze
3. Clapper	Stainless Steel 304
4. Facing Seal	EPDM Rubber
5. Clamping Ring	Stainless Steel 304
6. Gasket	EPDM Rubber
7. Spring	Stainless Steel 304
8. Hinge Pin	Stainless Steel 304
9. Bolt	Stainless Steel 304
10. Locknut	Stainless Steel 304
11. Plug 1/4" NPT	Carbon Steel
12. Plug 1/2" NPT	Carbon Steel

#### **Dimension**

size	Α	Weight
ln.	ln.	Ibs
2	6.65	5.5
21/2	7.20	8.8
3	7.80	13
4	8.58	20
6	10.63	42
8	12.80	77







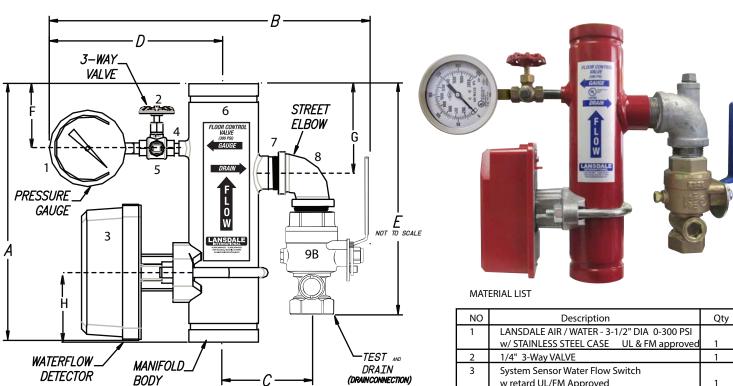




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Notes 2:	



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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"	14¼"	16¼"	19"	20¾"
C	5¼"	5″	5½"	7"	81⁄4"
D	91⁄4"	91/2"	9½"	10³⁄8"	11"
E (Ball Valve)	55/8"	71⁄8"	9%"	121/8"	13½″
E (Test & Drain)	10"	10¼"	12¼″	14¾"	14½″
F	3½"	3½"	3½"	3½"	3½"
G	41/2"	41/2"	4½"	4½"	4½"
Н	3½"	31/2"	3½"	31/2"	3½"

**BODY** 

(3" (80MM) VERSION SHOWN)

**DETECTOR** 

NO	Description	Qty	
	·		
1	LANSDALE AIR / WATER - 3-1/2" DIA 0-300 PSI		
	w/ STAINLESS STEEL CASE UL & FM approved	1	
2	1/4" 3-Way VALVE	1	
3	System Sensor Water Flow Switch		
	w retard UL/FM Approved	1	
4	1/4 x 2 Black Nipple	1	
5	1/4 Black CI Plug	1	
6	Commercial Riser Body Sch 40 A53 Steel Pipe	1	
7	Black Nipple _x close	1	
8	Galvanized Street Elbow (90 degree)		
9A	Ball Valve 300 PSI, 600 WOG UL/FM approved		
9B	Lansdale International or equal, Test & Drain UL/FM Approved	1	

Body Size	2"	2.5 "	3"	4"	6"
Ball Valve Size	1"	1.25"	1.25"	2"	2"
Test & Drain Size	1"	1.25"	1.25"	2"	2"

OR BALL

**WALVE** UL/FM\* APPROVED

All tolerances (with exception of the grooves) plus or minus 1/4 of an inch.
All Welds to be ¼" fillet surface prep of body - SSPC-SP-7 finished with 2.5 mils
Bengal Red TGIC/ Acryllic Epoxy powder coat, electrostatically applied.

Commercial Riser can be installed viertically or horizontally

ANSDALE	
INTERNATIONAL	

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	

<sup>\*</sup> AVAILABLE WITH PRESSURE RELIEF OPTION



www.gemlockgrooved.com

## RESIDENTIAL RISER

#### **Features:**

- Lead Free stainless steel body construction with all brass trim
- Factory assembled
- Factory pressure tested at 200psi (13.8 bar)
- NPT (female x female) connections
- Slim design allows for easy installation
- Optimum sensitivity is assured through a dedicated FM approved/UL and ULC Listed Water Flow Detector
- Choice of 3 kinds of trim:

Basic Trim W/Test & Drain

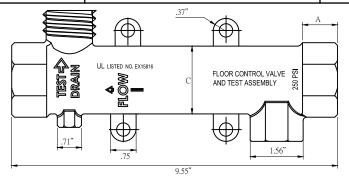
**Basic Trim w/Pressure Relief Kit** 







			_
Size	Basic Trim	Basic Trim w/Test & Drain	Basic Trim w/Pressure Relief Kit
1"	650-375-00100	650-375-00280	650-375-00200
11⁄4"	650-375-00120	650-375-00740	650-375-00220
1½"	650-375-00160	650-375-00760	650-375-00240
2"	650-375-00180	650-375-00840	650-375-00260



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



PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
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Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	

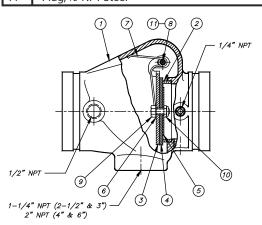


# RISER CHECK VALVE ASSEMBLY "Shotgun Riser"

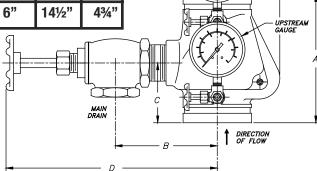
Lansdale Riser Check Valve Assemblies are intended for use in wet pipe fire protection systems, as well as preaction systems where there is no need for a mechanical alarm. The use of a waterflow switch can provide an electronic alarm. Grooved end connections provide fast and economical installation of a UL/FM approved coupling, such as Gemlock. When installed vertically the direction of flow arrow should point upward. For horizontal installation, the hinge pin must be located at the top. If used in a preaction sytsem the valve must be installed vertically.

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	MATERIAL LIST
1	Valve Body Gray Iron, ASTM-A48 Class 30A
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	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



SIZE	Α	В	C	D	Е
2"	6.65"	5"	3¼"	9½"	2½"
2½"	7"	5"	31/4"	9½"	3"
3"	8"	5"	31/4"	9½"	3½"
4"	8¾"	7"	41/4"	13½"	41/4"
6"	10¾"	8"	6"	14½"	4¾"





PROJECT INFORMATION	APPROVAL STAMP
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Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Data:	
Notes 1:	
Notes 2:	