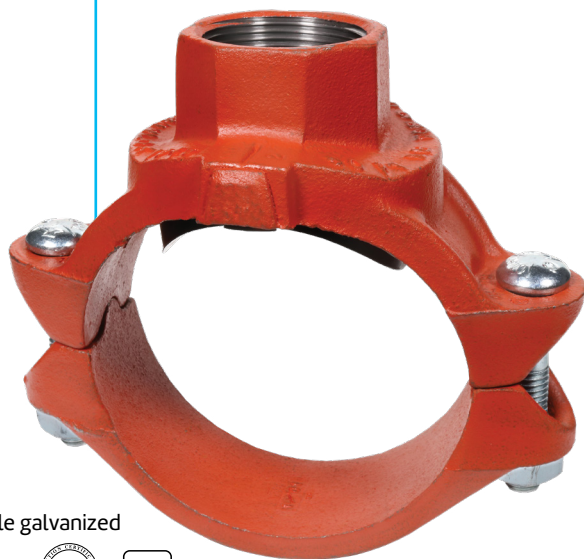


## Clamp-T\*, FPT Branch Fig. 7045FP



 - Available galvanized



The Gruvlok® Clamp-T provides a quick and easy outlet at any location along the pipe. A hole drilled or cut in the pipe to receive the locating collar of the Clamp-T is all that is required. The full, smooth outlet area provides for optimum flow characteristics.

The Clamp-T housing is specially engineered to conform to the pipe O.D. and the Clamp-T gasket providing a leak tight reliable seal in both positive pressure and vacuum conditions. Working pressure ratings shown are for reference only and are based on Schedule 40 pipe. For the latest UL/ULC listed, LPCB, VdS and FM Approved pressure ratings versus pipe schedule, see [www.asc-es.com](http://www.asc-es.com) or contact your local ASC Engineered Solutions™ Representative.

The Gruvlok Clamp-T provides for a branch or cross connection in light wall or standard wall steel pipe.

The Fig. 7045 Clamp-T female pipe thread branch is available with NPT or ISO 7/1 connection and the Fig. 7046 Clamp-T has grooved-end branch connection.

Clamp-T cross connections are available in various sizes allowing greater versatility in piping design.

Note: Variable End Configurations are Possible — 2" x 1/2" through 8" x 4" Thd x Thd and Gr. x Thd. Sizes

For Listings/Approval Details and Limitations, visit our website at [www.asc-es.com](http://www.asc-es.com) or contact an ASC Engineered Solutions™ Sales Representative.

## Material Specifications

### Housing

Ductile Iron conforming to ASTM A536, Grade 65-45-12

### ANSI Bolts & Heavy Hex Nuts

Heat treated, oval neck track head bolts conforming to ASTM A183 Grade 2 with a minimum tensile strength of 110,000 psi and heavy hex nuts of carbon steel conforming to ASTM A563 Grade A or Grade B, or J995 Grade 2. Bolts and nuts are provided zinc electroplated as standard.

### Metric Bolts & Heavy Hex Nuts

Heat treated, zinc electroplated oval-neck track head bolts made of carbon steel with mechanical properties per ISO 898-1 Class 8.8. Hex nuts and bolts are zinc electroplated followed by a yellow chromate dip.

### U-Bolt

Cold drawn steel and zinc plated.

### Coatings

- Rust inhibiting paint
- Color: Orange (Standard)
- Hot Dipped Zinc Galvanized (Optional)
- Other Available Options  
(Example: RAL3000 or RAL9000 Series)

For other Coating requirements contact an ASC Engineered Solutions Representative.

### Lubrication

- Standard Gruvlok
- Gruvlok Xtreme required for dry pipe systems and freezer applications

### Gasket Materials

Properties as designated in accordance with ASTM D2000.

- Grade "E" EPDM** (Green color code)
- 40°F to 230°F (Service Temperature Range)
- (-40°C to 110°C)

Recommended for water service, diluted acids, alkalies solutions, oil-free air and many chemical services.  
NOT FOR USE IN PETROLEUM APPLICATIONS.

- Grade "EP" EPDM** (Green and Red color code)
- 40°F to 250°F (Service Temperature Range)
- (-40°C to 121°C)

Recommended for water service, diluted acids, alkalies solutions, oil-free air and many other chemical services.  
NOT FOR USE IN PETROLEUM APPLICATIONS.



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

## Clamp-T\*, FPT Branch Fig. 7045FP

### Clamp-T Flow Data (Frictional Resistance)

Branch Size	Fig. 7045 Threaded Branch		Branch Size	Fig. 7045 Threaded Branch	
	C.V. Value	Equiv. Pipe Length		C.V. Value	Equiv. Pipe Length
In./DN(mm)		Ft./m	In./DN(mm)		Ft./m
1/2	22	1.0	2	164	3.5
15	—	0.3	50	—	1.1
3/4	25	2.0	2 1/2	152	12.5
20	—	0.6	65	—	3.8
1	44	2.0	3	318	8.5
25	—	0.6	80	—	2.6
1 1/4	76	2.5	4	536	8.0
32	—	0.8	100	—	2.4
1 1/2	89	4.0			
40	—	1.2			



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## Clamp-T\*, FPT Branch Fig. 7045FP

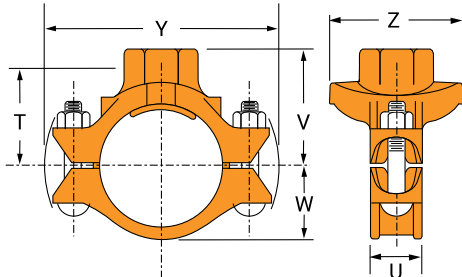


Fig. 7045

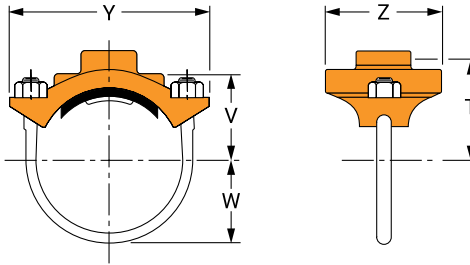


Fig. 7045 (U-Bolt)

### WARNING

For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme Lubricant is required.

Nominal Size	Pipe O.D.	Hole Dimensions		Max. Working Pressure <sup>s</sup>	Clamp-T Dimensions						Bolt Size	Specified Torque §		Approx. Wt. Ea.	
		Min. Diam.	Max. Diam.		T	U	V Threaded	W	Y	Z		Min.	Max.		
In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m	Ft.-Lbs./N-m	Lbs./kg
2 x 1/2 50 x 15	2.375 x 0.840 60.3 x 21.3	1 1/2 38	1 5/8 41	500 34.5	2 3/16 56	9/16 14.0	2 5/8 67.0	1/2 12	5 1/2 140	3 76	1/2 U-Bolt -	30	40	2.3 1.0	
2 x 3/4 50 x 20	2.375 x 1.050 60.3 x 26.7	1 1/2 38	1 5/8 41	500 34.5	2 1/16 52	9/16 14.0	2 5/8 67.0	1 1/2 38	5 1/2 140	3 76	1/2 U-Bolt -	30	40	2.3 1.0	
2 x 1 50 x 25	2.375 x 1.315 60.3 x 33.7	1 1/2 38	1 5/8 41	500 34.5	1 15/16 51	9/16 14.0	2 5/8 67.0	1 1/2 38	5 1/2 140	3 76	1/2 U-Bolt -	30	40	2.6 1.2	
2 x 1 1/4 50 x 32	2.375 x 1.660 60.3 x 42.4	2 51	2 1/8 54	500 34.5	2 3/16 55	9/16 14.0	2 7/8 73.0	1 1/2 38	5 1/2 140	3 1/2 89	1/2 U-Bolt -	30	40	2.7 1.2	
2 x 1 1/2 50 x 40	2.375 x 1.900 60.3 x 48.3	2 51	2 1/8 54	500 34.5	2 3/16 55	9/16 14.0	2 7/8 73.0	1 1/2 38	7 178	3 1/2 89	1/2 U-Bolt -	30	40	2.5 1.1	
2 1/2 x 1/2 65 x 15	2.875 x 0.840 73.0 x 21.3	1 1/2 38	1 5/8 41	500 34.5	2 7/16 62	9/16 14	2 7/8 73.0	1 3/4 44	5 1/2 140	3 76	1/2 U-Bolt -	30	40	3.0 1.4	
2 1/2 x 3/4 65 x 20	2.875 x 1.050 73.0 x 26.7	1 1/2 38	1 5/8 41	500 34.5	2 5/16 59	9/16 14	2 7/8 73.0	1 3/4 44	5 1/2 140	3 76	1/2 U-Bolt -	30	40	2.9 1.3	
2 1/2 x 1 65 x 25	2.875 x 1.315 73.0 x 33.7	1 1/2 38	1 5/8 41	500 34.5	2 3/16 55	9/16 14	2 7/8 73.0	1 3/4 44	6 1/8 156	3 76	1/2 U-Bolt -	30	40	2.9 1.3	
2 1/2 x 1 1/4 65 x 32	2.875 x 1.660 73.0 x 42.4	2 51	2 1/8 54	500 34.5	2 7/16 62	9/16 14	3 1/8 79.0	1 3/4 44	6 1/8 156	3 3/8 86	1/2 U-Bolt -	30	40	3.4 1.5	
2 1/2 x 1 1/2 65 x 40	2.875 x 1.900 73.0 x 48.3	2 51	2 1/8 54	500 34.5	2 7/16 62	9/16 14	3 1/8 79	1 3/4 44	6 1/8 156	3 3/8 86	1/2 U-Bolt -	30	40	3.4 1.5	
3 x 1/2 80 x 15	3.500 x 0.840 88.9 x 21.3	1 1/2 38	1 5/8 41	500 34.5	2 9/16 65	9/16 14	3 76	2 1/8 54	7 178	3 3/4 95	1/2 U-Bolt -	30	40	2.8 1.2	

### Note:

2 1/2", 5" and 6" Nominal size run pipe may be used on 3" O.D., 5 1/2" O.D. and 6 1/2" O.D. pipe.

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§ – For additional Bolt Torque information see Technical Data Section.

Not for use in copper systems.



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## Clamp-T\*, FPT Branch Fig. 7045FP

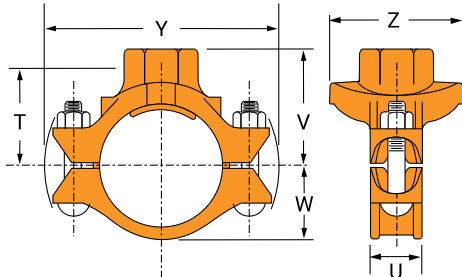


Fig. 7045

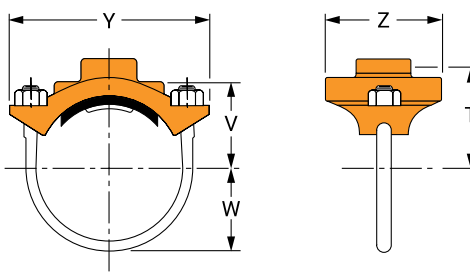


Fig. 7045 (U-Bolt)

### WARNING

For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme Lubricant is required.

Nominal Size	Pipe O.D.	Hole Dimensions		Max. Working Pressure <sup>s</sup>	Clamp-T Dimensions						Bolt Size	Specified Torque §		Approx. Wt. Ea.	
		Min. Diam.	Max. Diam.		T	U	V Threaded	W	Y	Z		Min.	Max.		
In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m	Ft.-Lbs./N-m	Lbs./kg
3 x ¾ 80 x 20	3.500 x 1.050 88.9 x 26.7	1½ 38	1⅝ 41	500 34.5	2⅞ 62	⅞ 14	3 76	2⅝ 54	7 178	¾ 95	½ U-Bolt —	30	40	2.7 1.2	
3 x 1 80 x 25	3.500 x 1.315 88.9 x 33.7	1½ 38	1⅝ 41	500 34.5	2⅞ 59	⅞ 14	3 76	2⅝ 54	7 178	¾ 95	½ U-Bolt —	30	40	2.7 1.2	
3 x 1¼ 80 x 32	3.500 x 1.660 88.9 x 42.4	2 51	2⅝ 54	500 34.5	2⅞ 68	1½ 38	¾ 86	2⅝ 54	6⅞ 175	¾ 95	½ x 2¾ —	80	100	3.4 1.5	
3 x 1½ 80 x 40	3.500 x 1.900 88.9 x 48.3	2 51	2⅝ 54	500 34.5	2⅞ 68	1½ 38	¾ 86	2⅝ 54	6⅞ 175	¾ 95	½ x 2¾ —	80	100	4.4 2.0	
3 x 2 80 x 50	3.500 x 2.375 88.9 x 60.3	2½ 64	2⅝ 67	500 34.5	2⅞ 68	1½ 38	¾ 86	2⅝ 54	6⅞ 175	4⅞ 105	½ x 2¾ —	80	100	4.6 2.1	
4 x ½ 100 x 15	4.500 x 0.840 114.3 x 21.3	1½ 38	1⅝ 41	500 34.5	3⅞ 76	⅞ 14	3½ 89	2⅝ 67	7¾ 197	¾ 95	½ U-Bolt —	30	40	2.9 1.3	
4 x ¾ 100 x 20	4.500 x 1.050 114.3 x 26.7	1½ 38	1⅝ 41	500 34.5	3⅞ 78	⅞ 14	3½ 89	2⅝ 67	7¾ 197	¾ 95	½ U-Bolt —	30	40	2.8 1.3	
4 x 1 100 x 25	4.500 x 1.315 114.3 x 33.7	1½ 38	1⅝ 41	500 34.5	2⅞ 73	⅞ 14	3½ 89	2⅝ 67	7¾ 197	¾ 95	½ U-Bolt —	30	40	2.7 1.2	
4 x 1¼ 100 x 32	4.500 x 1.660 114.3 x 42.4	2 51	2⅝ 54	500 34.5	3⅞ 81	1⅞ 48	¾ 98	2⅝ 67	7½ 191	¾ 95	½ x 2¾ —	80	100	4.5 2.0	
4 x 1½ 100 x 40	4.500 x 1.900 114.3 x 48.3	2 51	2⅝ 54	500 34.5	3⅞ 81	1⅞ 48	¾ 98	2⅝ 67	7½ 191	¾ 95	½ x 2¾ —	80	100	4.6 2.1	
4 x 2 100 x 50	4.500 x 2.375 114.3 x 60.3	2½ 64	2⅝ 67	500 34.5	3⅞ 84	1⅞ 48	4 102	2⅝ 67	7½ 191	4⅞ 105	½ x 2¾ —	80	100	7.7 3.5	

**Note:**

2½", 5" and 6" Nominal size run pipe may be used on 3" O.D., 5½" O.D. and 6½" O.D. pipe.

s – Working Pressure Ratings are for reference only and based on Sch. 40 pipe. For the latest UL/ULC, FM, VdS and LPCB pressure ratings versus pipe schedule, please visit [www.asc-es.com](http://www.asc-es.com) or contact your local ASC Engineered Solutions™ Representative.

§ – For additional Bolt Torque information see Technical Data Section.

Not for use in copper systems.



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## Clamp-T\*, FPT Branch Fig. 7045FP

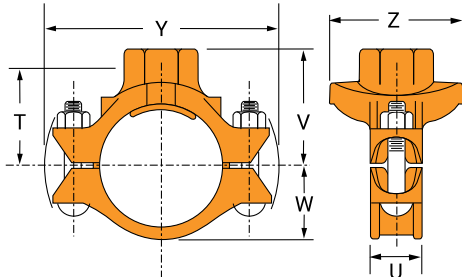


Fig. 7045

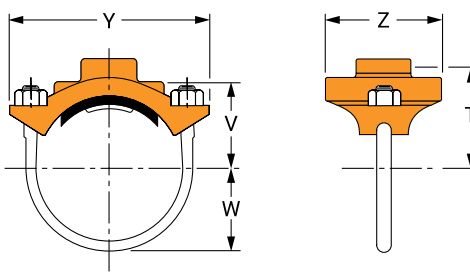


Fig. 7045 (U-Bolt)

### WARNING

For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme Lubricant is required.

Nominal Size	Pipe O.D.	Hole Dimensions		Max. Working Pressure <sup>s</sup>	Clamp-T Dimensions						Bolt Size	Specified Torque §		Approx. Wt. Ea.	
		Min. Diam.	Max. Diam.		T	U	V Threaded	W	Y	Z		Min.	Max.		
In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m	Ft.-Lbs./N-m	Lbs./kg
4 x 2½ 100 x 65	4.500 x 2.875 114.3 x 73.0	2¾ 70	2⅞ 73	500 34.5	3⅛ 78	1⅞ 48	4 102	2⅝ 67	7½ 191	4⅜ 111	½ x 2¾ —	80	100	5.2 2.4	
4 x 3 O.D. 100 x 80	4.500 x 2.996 114.3 x 76.1	2¾ 70	2⅞ 73	500 34.5	3 76	1⅞ 48	4 102	2⅝ 67	7½ 191	4⅜ 111	½ x 2¾ —	80	100	5.2 2.4	
4 x 3 100 x 80	4.500 x 3.500 114.3 x 88.9	3½ 89	3⅝ 92	500 34.5	3¼ 83	1⅞ 48	4¼ 108	2⅝ 67	7½ 191	5¼ 133	½ x 3½ —	80	100	6.5 2.9	
5 x 1¼ 125 x 32	5.563 x 1.660 141.3 x 42.4	2 51	2⅞ 54	500 34.5	3⅛ 94	1⅞ 48	4⅜ 111	3¼ 83	9⅞ 232	3¾ 95	⅝ x 3¼ —	100	130	5.4 2.4	
5 x 1½ 125 x 40	5.563 x 1.900 141.3 x 48.3	2 51	2⅞ 54	500 34.5	3⅛ 94	1⅞ 48	4⅜ 111	3¼ 83	9⅞ 232	3¾ 95	⅝ x 3¼ —	100	130	5.5 2.5	
5 x 2 125 x 50	5.563 x 2.375 141.3 x 60.3	2½ 64	2⅝ 67	500 34.5	3⅜ 97	1⅞ 48	4½ 114	3¼ 83	9⅞ 232	4⅞ 105	⅝ x 3¼ —	100	130	5.7 2.6	
5 x 2½ 125 x 65	5.563 x 2.875 141.3 x 73.0	2¾ 70	2⅞ 73	500 34.5	3⅜ 97	1⅞ 48	4¾ 121	3¼ 83	9⅞ 232	4⅜ 111	⅝ x 3¼ —	100	130	7.0 3.2	
5 x 3 O.D. 125 x 80	5.563 x 2.996 141.3 x 76.1	2¾ 70	2⅞ 73	500 34.5	3¾ 95	1⅞ 48	4¾ 121	3¼ 83	9⅞ 232	4⅜ 111	⅝ x 3¼ —	130	180	7.0 3.2	
5 x 3 125 x 80	5.563 x 3.500 141.3 x 88.9	3½ 89	3⅝ 92	500 34.5	4 102	1⅞ 48	5 127	3¼ 83	9⅞ 232	5¼ 133	⅝ x 3¼ —	100	130	8.7 3.9	
6 x 1¼ 150 x 32	6.625 x 1.660 168.3 x 42.4	2 51	2⅞ 54	500 34.5	4⅜ 106	2 51	4⅞ 124	3⅞ 98	10⅞ 257	3¾ 95	⅝ x 4¼ —	100	130	7.8 3.5	
6 x 1½ 150 x 40	6.625 x 1.900 168.3 x 48.3	2 51	2⅞ 54	500 34.5	4⅜ 106	2 51	4⅞ 124	3⅞ 98	10⅞ 257	3¾ 95	⅝ x 4¼ —	100	130	7.8 3.5	

**Note:**

2½", 5" and 6" Nominal size run pipe may be used on 3" O.D., 5½" O.D. and 6½" O.D. pipe.

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§ – For additional Bolt Torque information see Technical Data Section.

Not for use in copper systems.



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## Clamp-T\*, FPT Branch Fig. 7045FP

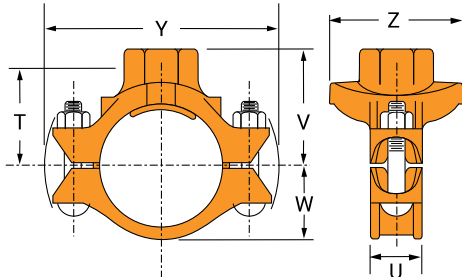


Fig. 7045

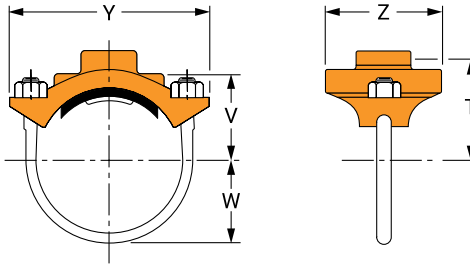


Fig. 7045 (U-Bolt)

### WARNING

For dry pipe systems and freezer applications lubrication of the gasket is required, Gruvlok Xtreme Lubricant is required.

Nominal Size	Pipe O.D.	Hole Dimensions		Max. Working Pressure <sup>s</sup>	Clamp-T Dimensions						Bolt Size	Specified Torque §		Approx. Wt. Ea.	
		Min. Diam.	Max. Diam.		T	U	V Threaded	W	Y	Z		Min.	Max.		
In./DN(mm)	In./mm	In./mm	In./mm	PSI/bar	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm	Ft.-Lbs./N-m	Ft.-Lbs./N-m	Lbs./kg
6 x 2 150 x 50	6.625 x 2.375 168.3 x 60.3	2½ 64	2⅝ 67	500 34.5	4¾ 106	2 51	4⅞ 124	3⅞ 98	10⅞ 257	4⅞ 105	⅝ x 4¼ —	100	130	7.8 3.5	
6 x 2½ 150 x 65	6.625 x 2.875 168.3 x 73.0	2¾ 70	2⅞ 73	500 34.5	4¾ 106	2 51	5⅞ 130	3⅞ 98	10⅞ 257	4⅞ 111	⅝ x 4¼ —	100	130	8.4 3.8	
6 x 3 O.D. 150 x 80	6.625 x 2.996 168.3 x 76.1	2¾ 70	2⅞ 73	500 34.5	4⅞ 105	2 51	5⅞ 130	3⅞ 98	10⅞ 257	4⅞ 111	⅝ x 4¼ —	100	130	8.4 3.8	
6 x 3 150 x 80	6.625 x 3.500 168.3 x 88.9	3½ 89	3⅝ 92	500 34.5	4⅞ 111	2 51	5⅞ 137	3⅞ 98	10⅞ 257	5¼ 133	⅝ x 4¼ —	100	130	9.6 4.4	
6 x 4 150 x 100	6.625 x 4.500 168.3 x 114.3	4½ 114	4⅝ 117	500 34.5	4⅞ 111	2 51	5½ 140	3⅞ 98	10⅞ 257	6½ 165	⅝ x 4¼ —	100	130	10.5 4.8	
8 x 2 200 x 50	8.625 x 2.750 219.1 x 70.0	2½ 64	2⅝ 67	500 34.5	5¾ 132	2¼ 57	5⅞ 149	5 127	12¾ 324	4⅞ 105	¾ x 4¼ —	130	180	11.3 5.1	
8 x 2½ 200 x 65	8.625 x 2.875 219.1 x 73.0	2¾ 70	2⅞ 73	500 34.5	5¾ 134	2¼ 57	6¼ 159	5 127	12¾ 324	4⅞ 111	¾ x 4½ —	130	180	11.1 5.0	
8 x 3 O.D. 200 x 80	8.625 x 2.996 219.1 x 76.1	2¾ 70	2⅞ 73	500 34.5	5¼ 133	2¼ 57	6¼ 159	5 127	12¾ 324	4⅞ 111	¾ x 4½ —	130	180	11.1 5.0	
8 x 3 200 x 80	8.625 x 3.500 219.1 x 88.9	3½ 89	3⅝ 92	500 34.5	5⅞ 137	2¼ 57	6⅞ 162	5 127	12¾ 324	5¼ 133	¾ x 4½ —	130	180	13.0 5.9	
8 x 4 200 x 100	8.625 x 4.500 219.1 x 114.3	4½ 114	4⅝ 117	500 34.5	5⅞ 137	2¼ 57	6½ 165	5 127	12¾ 324	6½ 165	¾ x 4½ —	130	180	16.2 7.3	

### Note:

2½", 5" and 6" Nominal size run pipe may be used on 3" O.D., 5½" O.D. and 6½" O.D. pipe.

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