



Sizing Tables

General Information

General instructions

The following tables are designed to aid in quickly determining the correct Zeston 2000 PVC insulated fitting cover size for iron pipe, copper tubing and soil pipe applications.

Table A

Availability by size for all types of Zeston 2000 PVC insulated fitting covers except for long radius 90° (1.6 rad.) welded iron pipe and copper tubing elbows, P-traps, Y-branches, cone reducers, and MGT fitting covers. Depending upon the type of fitting to be insulated, and the information available, select one of the following tables:

Table 1

Fitting cover selection by insulation outer diameter or circumference. Use whenever pipe or tubing size or insulation thickness is not known or does not conform to ASTM C 585 Specifications.

Table 2A

Iron pipe fitting cover selection by pipe size and insulation thickness. Use for all iron pipe fittings listed in Table A except for some screwed fittings.

Table 2B

Copper tubing fitting cover selection by tubing O.D. size and insulation thickness. Use for copper tubing fittings listed in Table A.

Table 3A

Long radius 90° (1.6 rad.) elbow fitting cover selection by pipe size and insulation thickness. Use for long radius 90° (1.6 rad.) welded iron pipe elbows.

Table 3B

Long radius 90° (1.6 rad.) elbow fitting covers by copper tubing O.D. size and insulation thickness. Use for long radius 90° (1.6 rad.) copper tubing elbows.

Table 4

Standard P-Traps, Deep Seal P-Traps, Handicap Swivel P-Traps and Y-Branches.

Table 5

Flanged gate valve fitting covers.

Tables 6A and 6B

Mechanical Groove Type 90° (1.6 rad.), 45° (0.8 rad.) ells and tees. Use for MGT ells and tees.

Table 7

System 2000 PVC Cut & Curled jacketing selection chart.

Important note:

All Zeston 2000 PVC insulated fitting covers are sized to fit Micro-Lok fiber glass pipe insulation as well as other pipe insulations manufactured in accordance with ASTM C 585 on applicable sizes.

When pipe insulations are used which are not manufactured in accordance with ASTM C 585, determine the Zeston size required by measuring the outer diameter or circumference of the pipe insulation and referring to Table 1.

Hi-Lo Temp insulation insert information

Zeston supplies one precut, tailored fiber glass insert with each fitting up to #19 (approx. 6" [152 mm] IPS). Inserts can be ordered for larger sizes, or when more thickness is required due to operating conditions.

Note: Where pipe insulation thickness is greater than 1½" (38 mm), or pipe temperature is below 45°F (7°C), or above 250°F (121°C), additional inserts may be required. (A "rule of thumb" for temperatures over 250°F [121°C], or below 45°F [7°C], or insulation thicker than 1½" [38 mm], is to use one Hi-Lo Temp insert for each additional 1" [25 mm] of pipe insulation).

Ordering information

When ordering Zeston 2000 PVC insulated fitting covers, designate the size of the Zeston fitting cover selected from the applicable table followed by the abbreviation for the type of Zeston fitting cover desired.

Example:

#12-90; #15 TV; 3x1 LR 90.



Zeston Table A

Available Types of PVC Insulated Fitting Covers

90 — 90° (1.6 rad.) Short Radius Elbow
 45 — 45° (0.8 rad.) Elbow
 TV — Tee or Valve
 H90 — Humped 90° (1.6 rad.) Short Radius Elbow
 H45 — Humped 45° (0.8 rad.) Elbow
 HT — Humped Tee
 EC — End Cap

MLC — Mechanical Line Coupling
 LFC — Line Flange Coupling
 SPH — Soil Pipe Hub

Long radius sizes are available as shown in Tables 3A and 3B.

Table A. Availability of Zeston 2000 PVC insulated fitting covers

Fitting cover size	Fitting cover type									
	90	45	TV	H90	H45	HT	EC	MLC	LFC	SPH
1	X	X		X	X		X			
2	X	X	X	X	X		X			
3	X	X	X				X			
4	X	X	X	X	X	X	X			
5	X	X	X	X	X	X	X			
6	X	X	X	X	X	X	X		[X]	
7	X	X	X	X	X	X	X		[X]	
8	X	X	X	X	X	X	X		[X]	
9	X	X	X	X	X	X	X		[X]	
9A	X									
10	X	X	X	X	X	X	X		[X]	
11	X	X	X	X	X	X	X	X	[X]	X
11A	X									
12	X	X	X	X	X	X	X	X	[X]	
13	X	X	X	X	X	X	X	X	[X]	X
14	X	X	X				X		[X]	
15	X	X	X	X	X		X	X	[X]	X
16	X	X	X				X	[X]	[X]	
17	X	X	X				X	[X]	[X]	X
17A	X									
18	X	X	X	X			X	X	X	[X]
19	X	X	X				X	[X]	[X]	[X]
20	X	X	X				X	[X]	[X]	[X]
21	X	X	X				X	[X]	[X]	[X]
22	X	X	X				X	[X]	[X]	X
23	X	X	X				X	[X]	[X]	[X]
24	X	X	X				X	[X]	[X]	[X]
25	X	X	X				X	[X]	[X]	
26	X	X	X				X	[X]	[X]	[X]
27	X	X	X				X	X		[X]
28	X	X	X				X	[X]		[X]
29	X	X	X					[X]		
30	X	X					X	X		
31		X					X	X		
32	X	X						[X]		
33		X					X	[X]		
35		X								

The fitting covers listed above can be selected by using Tables 1, 2A or 2B, along with the abbreviation or the type of Zeston insulated fitting cover.

Items that are grouped together as [X] are designed to fit more than one size as indicated in the table. For example, 6/7 LFC will fit Line Flange Coupling applications listed for #6 and #7.



Zeston Sizing Table 1

Insulated Fitting Cover Selection by Insulation Outside Diameter or Circumference

Use for fittings where pipe, or tube size, or insulation thickness is not known, or when the outside diameter does not conform to ASTM C 585 Specifications. Johns Manville cannot be responsible for the proper fit of covers for non-standard applications unless dimensioned drawings are submitted for review by Johns Manville.

Do not use for mechanical groove type fittings.

Determine the outer diameter or circumference of the insulation (include any jacketing or overwrapping) and select the Zeston insulated fitting cover number or size from the table below.

Refer to Tables 2A, 2B, 3A and 3B for guidance in selecting the proper cover by pipe size and thickness.

Refer to general instructions for ordering information.

Zeston Sizing Table 1

Fitting Cover Size (Per Table A)	Pipe insulation		Circumference (maximum)		Zeston 2000 PVC insulated fitting cover size for long radius 90° (1.6 rad.) ells	mm
	Outer Diameter (maximum)		in.	mm		
1	1½	41	5½	130		
2	1¾	44	5½	140	2	
3	2	51	6¼	159	3	
4	2¼	57	7	178	4	
5	2½	64	7¾	200	5	
6	2¾	70	8½	219	6	
7	3	76	9¾	238	7	
8	3¾	86	10½	270	8	
9	3¾	95	11¾	298	9; 9A	
10	4½	105	13	330	10	
11	4¾	121	14¾	378	11; 11A; 2x1; 3x½	51x25; 76x13
12	5¼	133	16½	419	12	
13	5¾	146	18	457	13; 2½x1½; 3x1; 4x½	67x38; 76x25; 102x13
14	6¼	159	19½	498	14	
15	6¾	171	21¼	540	15; 15A; 3x1½; 4x1; 5x½	76x38; 102x25; 127x13
16	7¼	184	22¾	578	16	
17	7¾	197	24¾	619	17; 17A; 3x2; 4x1½; 5x1; 6x½	76x51; 102x38; 127x25; 152x13
18	8¾	222	27½	699	18; 4x2; 5x1½; 6x1	102x51; 127x38; 152x25
19	9¾	248	30½	778	19; 5x2; 6x1½; 8x½	127x51; 152x38; 203x13
20	10¾	276	34¼	870	20; 6x2; 8x1	152x51; 203x25
21	11¾	302	37¼	946	21; 8x1½	203x38
22	12¾	327	40½	1029	22; 8x2; 10x1	203x51; 254x25
23	14½	359	44½	1130	23; 10x1½	254x38
24	15½	384	47½	1207	24; 10x2; 12x1	254x51; 305x25
25	16½	410	50½	1283	25; 12x1½; 14x1	305x38; 356x25
26	17½	435	54	1372	26; 12x2; 14x1½	305x51; 356x38
27	18½	460	57	1448	14x2; 16x1	356x51; 406x25
28	19½	486	60	1524	12x3; 16x1½	305x76; 406x38
29	20½	511	63	1600	14x3; 16x2; 18x1	356x76; 406x51; 457x25
30	21½	537	66½	1689	18x1½	457x38
31	22½	562	69½	1765	16x3; 18x2; 20x1	406x76; 457x51; 508x25
32	23¼	591	73	1854	20x1½	508x38
33	24¼	616	76	1930	18x3; 20x2	457x76; 508x51
35	26¼	667	82½	2096	20x3; 24x1	508x76; 610x25
	28¼	718	89	2261	24x2	610x51
	30¼	768	95	2413	24x3	610x76



Zeston Sizing Table 2A

Iron Pipe Fitting Covers

By pipe size and insulation thickness

Use for all iron pipe fittings listed in Table A except for some screwed fittings.

When using Zeston insulated fitting covers on screwed pipe, note the thickness of the metal on the screwed fitting. If not enough space is allowed for adequate insulation under the Zeston insulated fitting cover, a humped fitting cover must be used.

Refer to general instructions for ordering information.

Note: When using Zeston fitting covers on some screwed pipe, note the thickness of the metal on the screwed fitting. If there is not enough space for adequate insulation under the Zeston fitting cover, a humped fitting cover must be used.

Zeston PVC insulated fitting covers are sized to fit Micro-Lok® fiber glass pipe insulation and all other types of pipe insulation manufactured in accordance with ASTM C 585. Note that thicknesses for rubber and other products vary from fiber glass. Please measure to verify sizing.

Zeston Sizing Table 2A

Iron Pipe Size	Insulation thickness—in. (mm)							
	in.	mm	½ (13)	1 (25)	1½ (38)	2 (51)	2½ (64)	3 (76)
⅜	10		2	7	9			
½	13		3	7	10	12	15	17
¾	19		4	7	10	12	15	17
1	25		5	9	11	13	15	17
1¼	32		6	9	12	13	15	17
1½	38		7	10	12	15	17	18
2	51		9	11	13	15	17	18
2½	64		10	12	15	17	18	19
3	76		11	13	15	17	18	19
3½	89		12	15	17	18	19	20
4	102		13	15	17	18	19	20
5	127		15	17	18	19	20	21
6	152		17	18	19	20	21	22
8	203		19	20	21	22	23	24
10	254		21	22	23	24	25	26
12	305		23	24	25	26	27	28
14	356		24	25	26	27	28	29
16	406		26	27	28	29	30*	31**
18	457		28	29	30*	31**	32*	33**
20	508		30*	31**	32*	33**	—	35**
22	559		32*	33**	—	35**	—	—
24	610		—	35**	—	—	—	—

*No tees or valves available. **No short radius 90° ells, tees or valves available.

Zeston Sizing Table 2B

Copper Tubing Fitting Covers

By copper tubing O.D. size and insulation thickness

Use for all copper tube fittings listed in Table A.

Note: Dimensions given for copper tubing sizes are outer diameter (O.D.). DO NOT confuse with normal sizes which are inside diameter (I.D.).

Refer to general instructions for ordering information.

The covers for the following copper tubing sizes should be ordered with an "A" suffix to the size.

Short Radius 90° (1.6 rad.) Fitting

Application		
in.	mm	Order
2½ x ½	67x13	9A—90
3½ x ½	92x13	11A—90
5½ x 1	130x25	17A—90

Zeston PVC insulated fitting covers are sized to fit Micro-Lok® fiber glass pipe insulation and all other types of pipe insulation manufactured in accordance with ASTM C 585. Note that thicknesses for rubber and other products vary from fiber glass. Please measure to verify sizing.

Zeston Sizing Table 2B

Copper Tubing Size (O.D.)	Insulation thickness—in. (mm)							
	in.	mm	½ (13)	1 (25)	1½ (38)	2 (51)	2½ (64)	3 (76)
½	13		—	5	9	11	13	15
⅝	16		2	7	9	11	13	15
⅞	22		3	7	10	12	15	17
1¼	29		4	7	10	12	15	17
1⅝	35		5	9	11	13	15	17
1⅞	41		6	9	11††	13	15	17
2¼	54		8	10	12	15	17	18
2⅝	67		9†	11	13	15	17	18
3⅝	79		10	12	15	17	18	19
3⅞	92		11†	13	15	17	18	19
4¼	105		12	15	17	18	19	20
5⅝	130		14	17†	18	19	20	21
6⅝	156		16	18	19	20	21	22

†Add suffix "A" when short radius 90° ell is required, e.g. 9A.
††Use #12 for Micro-Lok® fiber glass pipe insulation.



Zeston Sizing Table 3A

Iron Pipe Fitting Covers

Long Radius 90° (1.6 rad.) Ells

By pipe size and insulation thickness

Use for long radius 90° (1.6 rad.) welded iron pipe elbows where listed.

Zeston Sizing Table 3A

Iron Pipe Size		Insulation thickness—in. (mm)												
in.	mm	½ (13)	1 (25)	1½ (38)	2 (51)	2½ (64)	3 (76)							
¾	10	2	7	9	—	—	—							
½	13	3	7	10	12	15	17							
¾	19	4	7	10	12	15	17							
1	25	5	9	11	13	15	17							
1¼	32	6	9	12	13	15	17							
1½	38	7	10	12	15	17	18							
2	51	9	2x1	51x25	13	15	17	18						
2½	64	10	12	15	17	18	19							
3	76	3x½	76x13	3x1	76x25	15 or 3x1½	15 or 76x38	17 or 3x2	17 or 76x51	18	19			
3½	89	4x½	102x13	15	17	18	19	20						
4	102	4x½	102x13	4x1	102x25	17 or 4x1½	17 or 102x38	18 or 4x2	18 or 102x51	19	20			
5	127	5x½	127x13	5x1	127x25	18 or 5x1½	18 or 127x38	19 or 5x2	19 or 127x51	20	21			
6	152	6x½	152x13	6x1	152x25	6x1½	152x38	20 or 6x2	20 or 152x51	21	22			
8	203	8x½	203x13	8x1	203x25	8x1½	203x38	8x2	203x51	23	24			
10	254	10x1	254x25	10x1	254x25	10x1½	254x38	10x2	254x51	25	26			
12	305	12x1	305x25	12x1	305x25	12x1½	305x38	12x2	305x51	12x3	305x76	12x3	305x76	
14	356	14x1	356x25	14x1	356x25	14x1½	356x38	14x2	356x51	14x3	356x76	14x3	356x76	
16	406	16x1	406x25	16x1	406x25	16x1½	406x38	16x2	406x51	16x3	406x76	16x3	406x76	
18	457	18x1	457x25	18x1	457x25	18x1½	457x38	18x2	457x51	18x3	457x76	18x3	457x76	
20	508	20x1	508x25	20x1	508x25	20x1½	508x38	20x2	508x51	20x3	508x76	20x3	508x76	
24	610	24x1	610x25	24x1	610x25	24x2	610x51	24x2	610x51	24x3	610x76	24x3	610x76	

Zeston PVC insulated fitting covers are sized to fit Micro-Lok® fiber glass pipe insulation and all other types of pipe insulation manufactured in accordance with ASTM C 585. Note that thicknesses for rubber and other products vary from fiber glass. Please measure to verify sizing.

Note: The sizes numbered 2 through 26 fit both short and long radius 90° (1.6 rad.) ells for the given pipe size and thickness. For a few applications, such as 3x2 (76x51), either short or long radius 90° (1.6 rad.) ells will fit and each size of fitting cover is shown in the table.

To order, place “– 90” behind the numbers listed in the chart.

Example:

Application	Order
¾" x 1" (10mm x 25mm) insulation	#7 – 90
6" x 1" (152mm x 25mm) insulation	6x1 – 90



Zeston Sizing Table 3B

Copper Tubing Fitting Covers

Long Radius 90° (1.6 rad.) Ells

By copper tubing O.D. size and insulation thickness

Use for long radius 90° (1.6 rad.) copper tubing elbows where listed.

Zeston Sizing Table 3B

Copper Tubing Size (O.D.)

Copper Tubing Size (O.D.)		Insulation thickness—in. (mm)											
in.	mm	½	(13)	1	(25)	1½	(38)	2	(51)	2½	(64)	3	(76)
½	13	—		5		9		11		13		15	
5/8	16	2		7		9		11		13		15	
7/8	22	3		7		10		12		15		17	
1 1/8	29	—		7		10		12		15		17	
1 3/8	35	—		9		11		13		15		17	
1 5/8	41	—		9A		11		13		15		17	
2 1/8	54	—		2x1	51x25	12		15		17		18	
2 5/8	67	—		11A		2 5/8x1 1/2	67x38	15		17		18	
3 1/8	79	3x1/2	76x13	3x1	76x25	15A		17A		18		19	
3 5/8	92	—		4x1/2	102x13	15A		17A		18		19	
4 1/8	105	4x1/2	102x13	4x1	102x25	17A		18		19		20	

Zeston PVC insulated fitting covers are sized to fit Micro-Lok® fiber glass pipe insulation and all other types of pipe insulation manufactured in accordance with ASTM C 585. Note that thicknesses for rubber and other products vary from fiber glass. Please measure to verify sizing.

Note: The sizes numbered 2 through 20 (without A) fit both short and long radius 90° (1.6 rad.) ells for the given tubing O.D. and thickness.

Zeston Sizing Table 4

P-Traps: Standard, Deep Seal & Handicap Swivel; Y-Branched

These covers are designed specifically for soil pipe.

Zeston Sizing Table 4

Sizes		Standard P-Trap*	Deep Seal P-Trap**	Handicap Swivel P-Trap*	Y-Branch
in.	mm				
1 1/4x1 1/2x1	32x38x25	X	—	X	—
3x1	76x25	X	—	—	—
4x1	102x25	X	X	—	—
5x2	127x51	X	—	—	—
6x2	152x51	X	—	—	—
4x4x1	102x102x25	—	—	—	X
6x6x1	152x152x25	—	—	—	X

Former industry fitting name: *1/2 S-Trap **P-Trap



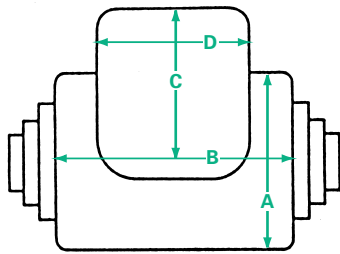
Zeston Sizing Table 5
Flanged Gate Valve Fitting Covers

Zeston Sizing Table 5

Valve size and insulation thickness		(A) Outside diameter		(B) Fitting width		(C) Bonnet height		(D) Bonnet width	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
2x1½, 1, ½	51x38, 25, 13	8⅝	219	11½	292	8¼	210	7¼	184
2½x2, 1½, 1, ½	64x51, 38, 25, 13	9⅝	244	13½	343	7½	191	8½	216
3x1, ½	76x25, 13	9⅝	244	13½	343	7½	191	8½	216
3x2, 1½, 1	76x51, 38, 25	10¾	273	15	381	6¾	171	9½	241
4x1, ½	102x25, 13	10¾	273	15	381	9	229	9½	241
4x2, 1½, 1, ½	102x51, 38, 25, 13	12¾	324	16	406	9	229	10⅝	264
5x1½, 1, ½	127x38, 25, 13	12¾	324	16	406	10	254	10⅝	264
5x2, 1½, 1	127x51, 38, 25	14	356	14	356	10¾	273	11¾	298
6x1, ½	152x25, 13	12¾	324	16	406	11½	292	10⅝	264
6x1½, 1, ½	152x38, 25, 13	14	356	17	432	12¼	311	11¾	298
6x2, 1½, 1	152x51, 38, 25	15	381	18	457	12¼	311	12¼	311
8x2, 1½, 1, ½	203x51, 38, 25, 13	18	457	19½	495	16	406	13½	343
10x2, 1½, 1	254x51, 38, 25	20	508	20½	521	17	432	13½	343
12x2, 1½, 1	305x51, 38, 25	23	584	22	559	21	533	16	406

Due to variations in valve bonnets, measuring the actual valve is recommended. Some fitting covers are identical except for bonnet height. Choose the smallest cover that will properly fit with fiber glass insert applied.

If necessary, bonnet height may be reduced by field trimming and tacking, taping or solvent welding the bonnet cap in the new position.





Johns Manville

Zeston Sizing Tables 6A and 6B

Victaulic, Gruvlok Mechanical Groove Type (MGT) Fitting Covers

By cover size

Use for sizing and ordering factory trimmed MGT fitting covers.

Zeston Sizing Table 6A

Iron Pipe Size		Insulation thickness – in. (mm)			
in.	mm	½ (13)	1 (25)	1½ (38)	2 (51)
2*	51*	✓	✓	✓	—
2½	64	✓	✓	✓	—
3*	76*	✓	✓	✓	✓
3½	89	✓	✓	✓	✓
4*	102*	✓	✓	✓	✓
5	127	✓	✓	✓	✓
6*	152*	✓	✓	✓	✓
8*	203*	✓	✓	✓	✓
10*	254*	✓	✓	✓	✓
12*	305*	✓	✓	✓	✓
14*	356*	✓	✓	✓	✓
16*	406*	✓	✓	✓	✓
18*	457*	✓	✓	✓	✓

✓ = Indicates availability. *Available in long or short radius.

All MGT fitting covers have step-down reducer ends to accommodate multiple insulation thicknesses. The above tables indicate the insulation thickness available for each of the step-down sizes listed. Covers can be easily field trimmed to permit the required insulation thickness.

Use for sizing and ordering 90° (1.6 rad.), 45° (0.8 rad.) and Tee MGT fitting covers.

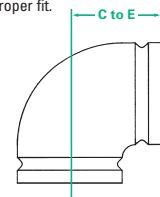
Zeston Sizing Table 6B

Copper Tubing Size (O.D.)		Insulation Thickness – in. (mm)			
in.	mm	½ (13)	1 (25)	1½ (38)	2 (51)
2½*	54	✓	✓	✓	✓
2⅝	67	✓	✓	✓	✓
3⅜	79	✓	✓	✓	✓
4½	105	✓	✓	✓	✓

✓ = Indicates availability. *Also fits 1½" (38 mm) Iron Pipe Size.



Long radius fitting "C to E" dimension, approximately 1.5X fitting diameter. Measure "C to E" dimension (as illustrated) before ordering to ensure proper fit.



Zeston Sizing Table 7

System 2000 PVC Cut & Curled Jacketing

Zeston 2000/300 Sizing Table 7

300 O.D. Size			2000 Fitting Size		
in.	mm	Size	in.	mm	Size
2.0	51	2-3	9.5	241	19
2.5	64	4-5	10.0	254	20
3.0	76	6-7	10.5	267	20
3.5	89	8-9	11.0	279	21
4.0	102	10	11.5	292	21
4.5	114	11	12.0	305	22
5.0	127	12	12.5	318	22
5.5	140	13	13.0	330	23
6.0	152	14	14.0	356	23
6.5	165	15	15.0	381	24
7.0	178	16	16.0	406	25
7.5	191	17	17.0	432	26
8.0	203	18	18.0	457	27
8.5	216	17	19.0	483	28
9.0	229	19	20.0	508	29

unsure of fitting size, or for covering bare pipe, simply measure and order by Zeston 300 O.D. size.

30 mil (0.8 mm) recommended for outdoor applications. Also available in colors (indoor only) to match 300 Series color fittings.



The following table is designed to aid in quickly determining the correct System 2000 PVC Cut & Curled jacketing size for iron pipe or copper tubing insulated with Micro-Lok fiber glass pipe insulation or other pipe insulations manufactured in accordance with ASTM C 585.

System 2000 PVC Cut and Curled sizes correspond to Zeston 2000/300 fitting cover sizes. For example, number 6-7 fits applications requiring number 6, or number 7 fitting covers. If