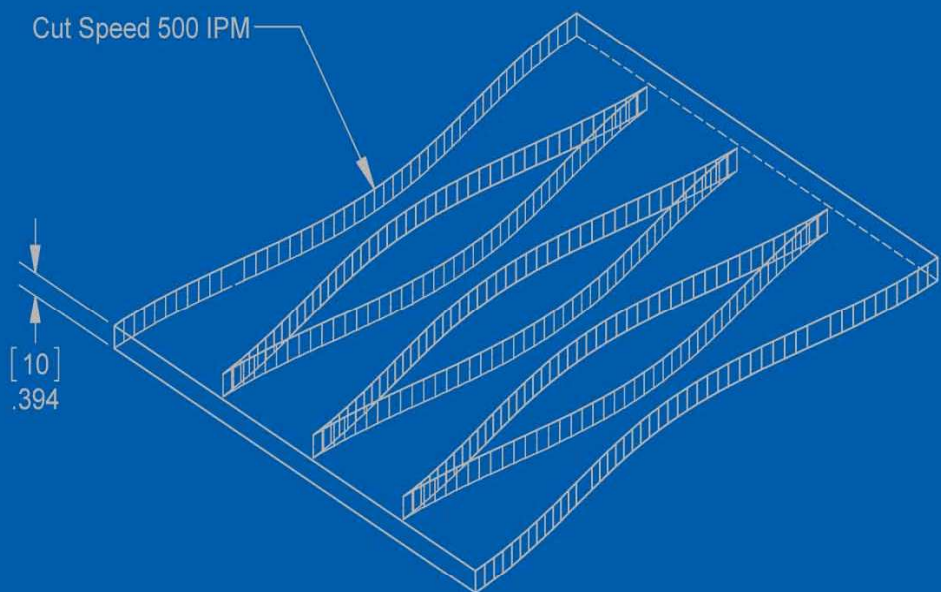
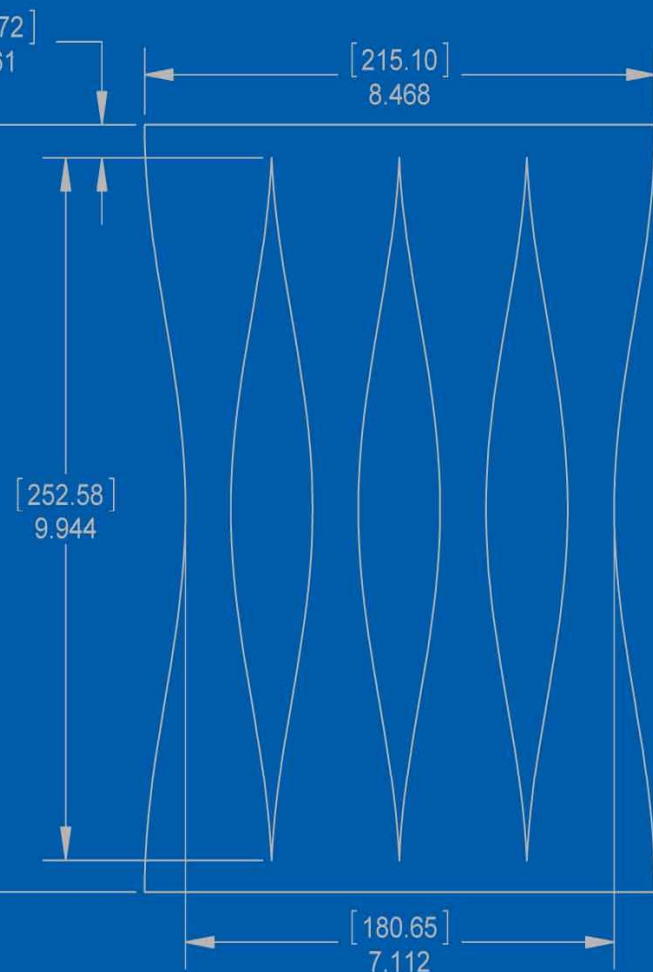


SMC Industries, Inc.





SMC Industries, Inc.

aspen aerogels

Aerogels Product Literature

PRECISION CUT INSULATION SYSTEM COMPONENTS



Fitting Covers

When you see the 'Bowtie', you know it's cut right! Precision Cut Fitting Covers are highly accurate, easy to install, and cost effective means to cover nearly all pipe fittings on an Aspen Aerogels insulation system.

Long Radius Butt Weld 90 & 45

Short Radius Butt Weld 90

Butt Weld Tees

Screwed/Socket Weld¹ 90 & 45

Screwed/Socket Weld¹ Tees

2D, 3D, & 5D Sweeps

Flanges & Valves

Traced Lines & Custom Sizes

Precision Cut Pipe Covering is designed to close with butt joints providing a smooth, even, and finished installation.

V-Grooved Pipe Covering for small bore, ½" - 3½" NPS, piping.

Cut to Length Pipe Covering for larger bore, 4" - 96" NPS, piping.

Pipe Covering



Tank Heads

Precision Cut Tank Heads & Vessel Bodies are one of SMC's more unique Aerogels cutting capabilities. A proven crown and petal design with staggered seams to produce a closed insulation system on any tank or vessel.

2:1 Semi-Elliptical
Hemispherical

Dished
Custom Configurations





ASPEN AEROGELS INSULATION SYSTEM COMPONENTS

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Terms & Conditions

All prices are subject to change without prior notice
All prices F.O.B. Malvern, Pennsylvania 19355 or Houston, Texas 77015
Standard Payment Terms: ½% Ten Days/Net 30 Days from date of invoice, add 2% per month after 30 days

Warranty & Disclaimer

The information herein is accurate and reliable to the best of SMC Industries, Inc.'s knowledge. But, because SMC Industries, Inc. has no control over our products once they leave our plant, no representation or warranty, expressed or implied, either as to **Merchantability** or **Fitness for a particular purpose** is made as to the performance or results of an installation containing our product which extend the description on the face hereof. If the products otherwise fail to conform to the representations made herein, through no fault of the purchaser, purchaser's exclusive remedy and SMC Industries, Inc.'s sole liability, shall at SMC Industries, Inc.'s options, be the repair or replacement of the nonconforming products or parts thereof, F.O.B. our nearest shipping point. The warranty expires one year from date of purchase. **In no event shall SMC Industries, Inc. be responsible or liable for any incidental, special or consequential damages, which might result from product failure.**

Returns & Allowances

SMC Industries, Inc. considers most material to be specialty items, therefore returns will not be accepted. However, SMC Industries, Inc. will examine each return request on a case by case basis and may allow some material to be returned. No returns of products will be accepted without prior written approval. Where returns are authorized due to causes for which SMC Industries, Inc. is responsible, SMC Industries, Inc. will assume all charges and the full purchase price will be credited. When returns are made for convenience of the purchaser at his/her request and these are approved in advance, in writing, by SMC Industries, Inc., such products returned to the shipping points will be credited at the purchase price less all freight charges, including stopover charges absorbed by SMC Industries, Inc. on the original shipment to the purchaser and full freight charges on the return. SMC Industries, Inc. will also charge for handling and reconditioning. Credit will be based upon the quantity received at SMC Industries, Inc. shipping point in resale condition, as determined by SMC Industries, Inc., plus a 20% restocking charge.

Delayed/Cancelled/Modified Purchase Orders

Due to our limited shipping and staging areas in both our Malvern, PA and Houston, TX facilities, the following terms and conditions will pertain all orders valued at \$2,500 USD or greater. If an order is reduced or cancelled in full, a 20% restocking charge will be applied to all material which was produced specifically for the cancelled/reduced order. Any material which is deemed 'non-stock' will be charged a 100% restocking fee. No restocking fee will be charged for material which was pulled from inventory, or had yet to be pulled. Orders which are delayed more than 10 business days, at the customers request, will be subject to the following detention fee schedule.

Delay Date	Weekly Detention Fee
Within 1 week of ship date	1.25%/week of value of material currently ready to ship (detention fee valuation)
Within 2 weeks of ship date	0.625%/week of value of material currently ready to ship (detention fee valuation)
Prior to 2 weeks of ship date	No detention charges will be incurred

Charges will be incurred starting the day of original ship date. Weekly charges will be incurred at the end of the business day, on the Friday of each week. SMC Industries, Inc., reserves the right to steal material from a delayed order, when and if possible, to fill other open orders. Stealing will allow SMC Industries, Inc. to minimize the floor space of a delayed order. In return, the value of any material stolen will be reduced from value of the delayed order, thus reducing the weekly detention fee incurred. Detention fees will continue to be incurred until the value of material ready to ship falls below \$2,500 USD. All production on the delayed orders will be halted until a new ship date is determined. Only after a release date is determined will any sizes, which require production, be rescheduled. SMC Industries, Inc. will make every attempt to meet this new ship date, but material which requires production will be scheduled as if the purchase order had just been received.

Replacement Materials

SMC Industries, Inc. will replace, at no charge to the customer, any and all incorrect or damaged material deemed to be the fault of SMC Industries, Inc. SMC Industries, Inc. will ship such material by the same or equal freight method as the original shipment. SMC Industries, Inc. will not be responsible for any expedited freight expenses.

Title

Title to the products shall remain SMC Industries, Inc.'s until paid in full by the purchaser. However, risk of loss shall vest in the purchaser at the time of delivery of the products to the carrier.

The "SMC" logo, Reversed Standard patterns, Reversed Gores patterns, Reversed Curved patterns, and T patterns are trademarks of SMC Industries, Inc. Logos and patterns cannot be copied or reproduced without the expressed written consent of SMC Industries, Inc.





Available Aerogel Materials and Thicknesses

Cryogel-Z



5mm - 200mm
(5mm increments)

Pyrogel XTE



5mm - 200mm
(5mm increments)

Pyrogel XTF



10mm - 200mm
(10mm increments)

Material Type Multipliers

Material Type	Multiplier
Cryogel-Z	1.20
Pyrogel XTE	1.00
Pyrogel XTF	1.45

Please Note: All SMC aerogels patterns are cut to ANSI pipe standards. Due to material thickness variations, field adjustments may be required for proper fit, especially in multiple layer configurations.

Easy to Read Color Coding

All pieces have color stripes on edge of material. The color of the stripes indicates the pipe size and any special fitting type or pattern variation. A color reference chart is included with each shipment for the installer convenience.

Stripe Color	Pipe Size							
Grey	½	3	8	16	23	30	37	44
Yellow	¾	3 ½	9	17	24	31	38	45
Red	1	4	10	18	25	32	39	46
Black	1 ¼	4 ½	11	19	26	33	40	47
Green	1 ½	5	12	20	27	34	41	48
Blue	2	6	14	21	28	35	42	
Orange	2 ½	7	15	22	29	36	43	

Special Fitting Type / Pattern Variation	Stripe Color
Socket Weld 90, 45, or Tee Fitting	Purple
Short Radius Butt Weld Fitting	Pink
Offset or Tangent Variation	Brown
Traced Fittings	Aqua



Butt Weld Fitting Covers (1/2" - 48" NPS) 2016 Base Price

		Insulation Thickness (5mm - 50mm)									
NPS [DN]		5	10	15	20	25	30	35	40	45	50
½ [15]	\$	3.30	3.30	3.30	3.30	5.18	6.48	9.52	14.10	18.36	20.74
¾ [20]		3.30	3.30	3.30	3.78	6.04	7.50	10.88	15.96	20.62	23.22
1 [25]		3.30	3.30	3.50	4.62	7.32	8.96	12.80	18.56	23.78	26.66
1¼ [32]		3.30	3.30	4.38	5.70	8.84	10.76	15.20	21.70	27.56	30.76
1½ [40]		3.30	3.30	5.14	6.60	10.08	12.00	16.78	23.74	30.00	33.38
2 [50]		3.30	4.30	7.90	9.68	13.98	16.30	21.92	29.88	36.96	40.96
2½ [65]		4.62	6.38	11.68	14.14	20.00	22.72	29.46	38.40	46.66	50.84
3 [80]		6.26	9.14	16.68	19.44	27.68	31.32	40.12	50.74	60.66	65.34
3½ [90]		7.96	11.56	20.92	25.02	35.80	40.36	51.90	64.20	76.30	81.74
4 [100]		10.82	15.34	27.90	32.36	45.98	51.56	66.10	88.26	103.58	110.18
4½* [115]		11.90	16.78	29.80	35.18	49.84	55.06	70.58	93.72	109.96	116.90
5 [125]		15.54	22.04	39.62	46.82	66.44	74.30	95.94	123.56	146.36	155.56
6 [150]		21.08	29.98	53.42	63.12	88.90	99.42	127.56	160.98	191.48	203.64
7* [175]		24.08	34.00	60.42	71.18	99.94	111.50	142.64	179.90	213.38	226.58
8 [200]		35.96	49.36	88.28	102.68	144.58	159.96	204.84	248.94	296.80	314.16
9* [225]		39.68	54.56	97.22	113.08	158.72	175.58	224.20	272.56	324.14	342.98
10 [250]		52.32	72.42	128.22	149.80	209.32	231.88	294.88	352.60	419.06	444.36
11* [275]		56.80	78.62	139.12	161.94	225.92	250.24	317.68	379.76	450.68	477.46
12 [300]		71.18	99.20	174.60	204.10	283.72	314.46	398.04	469.84	557.62	591.60
14 [350]		88.54	124.00	217.24	254.44	352.40	391.34	494.02	577.54	684.92	727.32
15* [375]		94.48	132.18	231.38	270.82	374.72	415.90	524.52	635.94	749.28	793.92
16 [400]		117.18	162.76	285.20	332.94	460.98	510.58	643.88	768.42	907.30	960.94
17* [425]		124.00	172.06	301.32	351.54	486.40	538.48	678.90	809.84	955.54	1,011.66
18 [450]		144.78	201.50	352.16	411.38	568.24	629.62	792.36	937.14	1,105.78	1,171.80
19* [475]		152.22	212.04	370.46	432.46	596.76	661.24	831.74	983.56	1,159.96	1,228.78
20 [500]		175.16	244.90	426.88	498.80	687.28	761.68	956.66	1,123.56	1,325.06	1,404.74
21* [525]		183.52	256.38	446.72	521.74	718.58	796.40	999.76	1,173.98	1,383.84	1,466.62
22 [550]		208.64	292.34	508.10	594.58	817.48	906.76	1,137.08	1,327.04	1,564.50	1,659.06
23* [575]		217.94	304.74	529.80	619.38	851.58	943.96	1,183.28	1,380.86	1,627.32	1,725.28
24 [600]		251.48	350.06	609.34	711.26	978.36	1,083.26	1,358.18	1,572.70	1,855.78	1,966.64
26 [650]		291.28	406.60	706.06	824.72	1,132.74	1,254.76	1,571.32	1,811.46	2,136.58	2,264.92
28 [700]		333.68	466.86	809.84	946.36	1,298.28	1,438.52	1,799.74	2,066.58	2,436.72	2,583.66
30 [750]		379.44	531.58	920.70	1,076.56	1,475.36	1,634.94	2,043.40	2,338.76	2,756.90	2,923.92
32 [800]		428.18	600.40	1,038.62	1,214.96	1,663.58	1,844.00	2,302.68	2,627.74	3,096.46	3,285.08
34 [850]		479.50	673.70	1,163.98	1,362.26	1,863.34	2,065.72	2,577.58	2,933.40	3,456.06	3,667.00
36 [900]		543.36	759.94	1,314.58	1,535.92	2,102.30	2,327.98	2,905.64	3,293.56	3,882.94	4,117.74
38 [950]		601.10	841.96	1,455.20	1,700.84	2,326.24	2,576.66	3,214.20	3,635.38	4,284.64	4,545.04
40 [1000]		661.86	928.32	1,602.76	1,874.44	2,561.46	2,837.92	3,537.96	3,993.60	4,706.24	4,992.68
42 [1050]		725.64	1,018.60	1,757.26	2,055.86	2,807.98	3,111.34	3,876.48	4,368.40	5,147.00	5,461.20
44 [1100]		792.06	1,113.22	1,919.14	2,245.52	3,065.34	3,397.36	4,231.06	4,760.12	5,607.28	5,950.58
46 [1150]		861.50	1,211.72	2,087.54	2,443.86	3,334.42	3,695.94	4,600.84	5,168.26	6,087.48	6,460.72
48 [1200]		933.96	1,315.02	2,264.18	2,650.88	3,614.78	4,007.56	4,986.66	5,593.82	6,587.68	6,992.60

* Traced on previous size centerline radius

Butt Weld Fitting Type Multipliers

Fitting Type	Multiplier	Fitting Type	Multiplier
Long Radius 90°	1.00	2D 90° Sweep	1.33
Long Radius 45° (< 4" NPS)	0.75	2D 45° Sweep	0.67
Long Radius 45° (>= 4" NPS)	0.50	3D 90° Sweep	2.00
Short Radius 90° (>= 1" NPS)	0.75	3D 45° Sweep	1.00
Equal Butt Weld Tee	1.25	5D 90° Sweep	3.33
Reducing Butt Weld Tee	1.50	5D 45° Sweep	1.67



Butt Weld Fitting Covers (1/2" - 48" NPS) 2016 Base Price

		Insulation Thickness (55mm - 100mm)									
NPS	[DN]	55	60	65	70	75	80	85	90	95	100
½	[15]	\$ 26.38	29.48	36.74	40.62	49.66	54.40	65.48	71.14	84.42	91.10
¾	[20]	29.36	32.64	40.42	44.54	54.22	59.22	70.92	76.92	90.92	97.96
1	[25]	33.42	37.04	45.58	50.00	60.46	65.84	78.46	84.84	99.78	107.30
1¼	[32]	38.26	42.22	51.56	56.38	67.76	73.56	87.18	94.02	110.06	118.02
1½	[40]	41.32	45.50	55.34	60.42	72.32	78.40	92.60	99.72	116.40	124.68
2	[50]	50.00	54.68	65.72	71.36	84.60	91.30	106.96	114.74	133.00	141.98
2½	[65]	60.86	66.28	78.58	84.84	99.48	106.80	123.96	132.44	152.30	162.06
3	[80]	77.06	82.90	96.68	104.00	120.56	128.74	147.96	157.38	179.46	190.24
3½	[90]	95.10	101.40	116.50	124.32	142.08	150.70	171.56	181.76	205.62	217.18
4	[100]	126.98	133.18	150.50	158.66	178.00	187.64	209.88	220.50	245.58	258.60
4½*	[115]	133.70	141.18	160.00	168.60	190.04	200.32	224.54	237.06	265.06	278.54
5	[125]	180.30	189.16	214.80	224.22	250.60	261.76	288.70	300.52	330.08	343.48
6	[150]	236.50	249.46	284.68	297.22	333.52	348.10	385.34	400.70	438.74	454.86
7*	[175]	262.42	275.18	312.10	325.60	363.42	379.00	417.60	433.96	473.18	490.30
8	[200]	365.00	383.34	437.16	456.50	513.30	533.64	593.40	614.74	677.48	699.80
9*	[225]	397.54	417.38	474.92	495.76	556.26	578.08	641.58	664.40	730.86	754.66
10	[250]	514.54	540.82	614.48	642.26	719.38	748.40	829.26	859.26	943.58	975.08
11*	[275]	552.12	580.14	658.26	687.52	769.12	799.86	885.18	916.92	1,005.70	1,038.68
12	[300]	683.36	719.08	815.06	852.00	952.20	990.64	1,094.80	1,134.98	1,243.34	1,284.76
14	[350]	839.42	883.56	1,000.38	1,046.26	1,167.78	1,215.38	1,341.62	1,390.98	1,521.92	1,573.00
15*	[375]	911.96	958.34	1,081.10	1,129.20	1,256.68	1,306.52	1,438.72	1,490.30	1,627.20	1,680.52
16	[400]	1,105.08	1,160.88	1,310.62	1,368.28	1,523.28	1,583.10	1,743.68	1,805.38	1,971.54	2,035.08
17*	[425]	1,162.94	1,220.90	1,377.46	1,437.60	1,599.72	1,661.72	1,829.12	1,893.30	2,066.28	2,132.30
18	[450]	1,346.64	1,414.84	1,595.58	1,665.94	1,852.88	1,925.42	2,118.24	2,193.26	2,391.96	2,469.46
19*	[475]	1,411.06	1,482.36	1,670.84	1,744.00	1,938.36	2,014.00	2,214.58	2,292.38	2,498.84	2,578.82
20	[500]	1,613.06	1,694.90	1,909.72	1,994.36	2,215.70	2,302.80	2,530.66	2,620.56	2,855.22	2,947.30
21*	[525]	1,683.30	1,768.56	1,991.76	2,079.48	2,309.20	2,399.40	2,635.62	2,728.62	2,971.66	3,066.84
22	[550]	1,903.64	2,000.98	2,252.70	2,352.84	2,611.68	2,714.60	2,980.58	3,086.30	3,359.40	3,467.90
23*	[575]	1,978.86	2,079.60	2,340.32	2,443.86	2,711.70	2,818.02	3,093.00	3,202.12	3,484.22	3,596.12
24	[600]	2,257.54	2,371.38	2,670.10	2,786.90	3,093.42	3,213.58	3,528.30	3,651.06	3,973.58	4,099.32
26	[650]	2,598.60	2,729.92	3,071.80	3,206.82	3,557.26	3,695.64	4,054.62	4,195.98	4,563.52	4,708.22
28	[700]	2,962.74	3,113.40	3,501.76	3,655.76	4,053.06	4,210.80	4,617.02	4,778.10	5,193.62	5,358.04
30	[750]	3,351.72	3,522.46	3,959.94	4,134.40	4,581.18	4,759.74	5,216.18	5,398.46	5,864.58	6,050.58
32	[800]	3,764.20	3,956.54	4,445.72	4,642.50	5,142.10	5,342.60	5,852.24	6,056.84	6,576.90	6,785.22
34	[850]	4,200.44	4,415.82	4,960.06	5,179.54	5,734.56	5,958.52	6,524.32	6,752.36	7,328.96	7,561.46
36	[900]	4,718.38	4,957.96	5,570.32	5,814.24	6,438.32	6,686.58	7,321.96	7,574.98	8,222.06	8,479.44
38	[950]	5,206.46	5,471.62	6,145.20	6,415.14	7,100.86	7,375.14	8,073.02	8,352.08	9,062.10	9,345.94
40	[1000]	5,717.88	6,009.54	6,747.34	7,043.76	7,794.14	8,095.78	8,859.18	9,165.58	9,941.58	10,253.18
42	[1050]	6,252.82	6,572.24	7,377.32	7,701.96	8,520.04	8,850.32	9,681.86	10,016.90	10,861.48	11,202.16
44	[1100]	6,811.64	7,160.56	8,035.52	8,389.66	9,278.48	9,638.28	10,541.00	10,906.42	11,823.02	12,193.66
46	[1150]	7,394.24	7,773.56	8,721.42	9,106.38	10,068.56	10,459.58	11,436.52	11,832.76	12,824.02	13,226.34
48	[1200]	8,001.66	8,412.66	9,436.46	9,853.54	10,892.54	11,315.24	12,369.00	12,798.22	13,867.16	14,302.04

* Traced on previous size centerline radius

Butt Weld Fitting List Price Formula

2016 Base Price × Material Type Multiplier (Page 2) × Fitting Type Multiplier = 2016 List Price



Socket Weld / Screwed Fitting Covers (1½" - 4" NPS) 2016 Base Price

		Insulation Thickness (5-50mm)									
NPS	[DN]	5	10	15	20	25	30	35	40	45	50
½	[15]	\$ 3.30	3.30	4.58	6.29	9.97	12.40	17.81	21.08	28.56	32.80
¾	[20]	3.30	3.30	5.33	7.22	11.33	13.97	19.90	23.42	31.51	36.02
1	[25]	3.30	3.45	6.70	8.90	13.78	16.80	23.65	27.60	36.75	41.75
1¼	[32]	3.30	4.46	8.54	11.16	17.05	20.55	28.59	33.08	43.60	49.21
1½	[40]	3.30	5.21	9.89	12.81	19.42	23.26	32.14	37.02	48.50	54.53
2	[50]	4.25	6.97	13.08	16.69	24.98	29.59	40.40	46.14	59.81	66.79
2½	[65]	5.97	9.51	17.64	22.18	32.81	38.46	51.92	58.81	75.44	83.68
3	[80]	8.07	12.58	23.14	28.76	42.15	49.00	65.55	73.76	93.79	103.47
3½	[90]	10.60	16.25	29.68	36.56	53.16	61.40	81.50	91.21	115.14	126.44
4	[100]	13.48	20.38	37.03	45.29	65.45	75.19	99.19	110.52	138.70	151.74

		Insulation Thickness (55-100mm)									
NPS	[DN]	55	60	65	70	75	80	85	90	95	100
½	[15]	\$ 42.67	47.99	60.61	67.13	82.81	90.65	109.73	119.01	141.83	152.66
¾	[20]	46.60	52.23	65.63	72.49	89.04	97.26	117.31	126.99	150.86	162.14
1	[25]	53.54	59.71	74.47	81.92	99.99	108.84	130.55	140.93	166.61	178.63
1¼	[32]	62.54	69.38	85.86	94.05	114.02	123.67	147.45	158.70	186.63	199.58
1½	[40]	68.95	76.25	93.94	102.63	123.92	134.12	159.35	171.18	200.67	214.26
2	[50]	83.64	91.99	112.36	122.18	146.42	157.84	186.26	199.40	232.34	247.32
2½	[65]	103.81	113.52	137.48	148.79	176.92	189.94	222.56	237.42	274.87	291.68
3	[80]	127.33	138.60	166.62	179.60	212.11	226.92	264.25	281.01	323.50	342.33
3½	[90]	154.54	167.55	200.15	215.00	252.43	269.23	311.83	330.69	378.79	399.84
4	[100]	184.43	199.31	236.83	253.66	296.36	315.27	363.48	384.57	438.62	462.02

Socket Weld / Screwed Fitting Type Multipliers

Fitting Type	Multiplier	Fitting Type	Multiplier
3000# Socket Weld 90°	1.00	6000# Socket Weld 90°	1.25
3000# Socket Weld 45°	0.75	6000# Socket Weld 45°	1.00
3000# Socket Weld Tee	1.25	6000# Socket Weld Tee	1.60
3000# Socket Weld Reducing Tee	1.50	6000# Socket Weld Reducing Tee	1.88
150# Malleable Iron Screwed	1.00	Schedule 80	1.25
		125# Cast Iron Screwed	1.25

Socket Weld / Screwed Fitting List Price Formula

2016 Base Price × Material Type Multiplier (Page 2) × Fitting Type Multiplier = 2016 List Price



Socket Weld and Screwed Elbows

SMC's Reversed Curved patterns are specifically designed to fit the wide variety of socket weld and screwed fittings currently in the field. SMC's high yield nesting capabilities reduces scrap, and in return, reduces the price of a notoriously difficult fitting to field fabricate.



V-Grooved Pipe Covering (½" - 4" NPS) 2016 Base Price

		Insulation Thickness (5-50mm)									
NPS	[DN]	5	10	15	20	25	30	35	40	45	50
½	[15]	\$ 3.30	3.82	7.23	9.52	14.27	17.10	23.20	26.57	34.01	37.91
¾	[20]	3.30	4.34	8.12	10.57	15.69	18.67	25.14	28.66	36.47	40.52
1	[25]	3.30	5.02	9.27	11.91	17.52	20.69	27.64	31.34	39.64	43.88
1¼	[32]	3.50	5.84	10.68	13.55	19.74	23.15	30.69	34.63	43.51	47.99
1½	[40]	3.87	6.36	11.58	14.60	21.16	24.72	32.63	36.72	45.97	50.60
2	[50]	4.73	7.55	13.63	16.99	24.40	28.30	37.06	41.49	51.60	56.57
2½	[65]	5.58	8.75	15.67	19.37	27.65	31.88	41.50	46.27	57.23	62.54
3	[80]	6.65	10.24	18.24	22.36	31.70	36.36	47.05	52.24	64.27	70.00
3½	[90]	7.50	11.43	20.28	24.75	34.94	39.94	51.48	57.02	69.90	75.98
4	[100]	8.36	12.63	22.33	27.14	38.18	43.53	55.92	61.80	75.53	81.95

		Insulation Thickness (55-100mm)									
NPS	[DN]	55	60	65	70	75	80	85	90	95	100
½	[15]	\$ 46.70	51.14	61.26	66.24	77.71	83.22	96.04	102.09	116.25	122.84
¾	[20]	49.68	54.27	64.77	69.90	81.74	87.40	100.60	106.79	121.33	128.06
1	[25]	53.52	58.30	69.28	74.60	86.93	92.78	106.45	112.84	127.86	134.78
1¼	[32]	58.21	63.23	74.80	80.35	93.26	99.35	113.61	120.23	135.83	142.99
1½	[40]	61.20	66.36	78.30	84.00	97.29	103.53	118.16	124.93	140.91	148.21
2	[50]	68.02	73.53	86.32	92.36	106.51	113.08	128.57	135.68	152.51	160.15
2½	[65]	74.85	80.69	94.34	100.72	115.72	122.63	138.97	146.42	164.11	172.10
3	[80]	83.38	89.65	104.37	111.17	127.23	134.57	151.98	159.86	178.61	187.02
3½	[90]	90.20	96.81	112.39	119.53	136.45	144.13	162.39	170.61	190.21	198.96
4	[100]	97.03	103.98	120.40	127.89	145.66	153.68	172.80	181.35	201.82	210.91

V-Grooved Pipe Covering Piece Lengths

Material Type(s)	Standard Piece Length	'Sold In' Lengths
Pyrogel XTE and XTF	2.50' (.762m)	5.00' (1.524m)
Cryogel-Z	2.38' (.725m)	4.75' (1.448m)

V-Grooved Pipe Covering List Price Formula

$$2016 \text{ Base Price} \times \text{Material Type Multiplier (Page 2)} = 2016 \text{ List Price}$$

Pre-Cut VentureClad® is available for all V-Grooved Pipe Coving pipe sizes and thicknesses. VentureClad® is a patented, zero permeability, absolute weather and vapor barrier for insulation cladding and jacketing applications. A self adhesive material is as tough as metal jacketing materials but installs quickly and easily with no special tools required. VentureClad® is available in smooth or embossed finish, 5 ply or 13 ply thicknesses, and a variety of colors to reduce emissivity.

VentureClad®



Please call for VentureClad pricing and availability



Cut to Length Pipe Covering (4" - 48" NPS) 2016 Base Price

		Insulation Thickness (5-50mm)									
NPS	[DN]	5	10	15	20	25	30	35	40	45	50
4	[100]	\$ 6.77	10.47	18.34	22.53	31.47	36.13	46.19	51.30	62.43	68.02
4½	[115]	7.47	11.47	20.02	24.49	34.15	39.09	49.83	55.26	67.09	72.98
5	[125]	8.25	12.58	21.92	26.74	37.17	42.43	53.98	59.72	72.34	78.57
6	[150]	9.72	14.68	25.51	30.94	42.85	48.77	61.75	68.15	82.23	89.08
7	[175]	11.09	16.68	28.89	34.91	48.19	54.72	69.09	76.08	91.55	99.00
8	[200]	12.49	18.66	32.25	38.87	53.55	60.66	76.42	84.02	100.87	108.91
9	[225]	13.87	20.64	35.62	42.83	58.89	66.60	83.75	91.94	110.17	118.83
10	[250]	15.43	22.89	39.40	47.30	64.92	73.30	92.00	100.87	120.64	129.98
11	[275]	16.81	24.85	42.77	51.28	70.28	79.25	99.34	108.79	129.96	139.89
12	[300]	18.21	26.85	46.13	55.25	75.62	85.19	106.68	116.72	139.28	149.79
14	[350]	19.94	29.32	50.34	60.21	82.30	92.62	115.85	126.62	150.92	162.19
15	[375]	21.32	31.30	53.72	64.17	87.66	98.58	123.17	134.57	160.25	172.09
16	[400]	22.70	33.28	57.08	68.13	93.00	104.53	130.51	142.49	169.55	182.02
17	[425]	24.09	35.26	60.45	72.09	98.36	110.47	137.83	150.42	178.87	191.92
18	[450]	25.47	37.25	63.81	76.06	103.70	116.42	145.17	158.34	188.19	201.85
19	[475]	26.87	39.23	67.17	80.02	109.06	122.38	152.49	166.28	197.51	211.75
20	[500]	28.25	41.23	70.55	83.98	114.40	128.32	159.83	174.21	206.81	221.66
21	[525]	29.64	43.19	73.91	87.96	119.75	134.26	167.17	182.13	216.13	231.57
22	[550]	31.02	45.19	77.28	91.92	125.09	140.21	174.49	190.06	225.43	241.49
23	[575]	32.40	47.15	80.64	95.89	130.45	146.17	181.83	198.00	234.75	251.40
24	[600]	33.77	49.15	84.02	99.85	135.79	152.09	189.15	205.92	244.06	261.32
26	[650]	36.55	53.11	90.75	107.77	146.49	164.00	203.81	221.77	262.72	281.13
28	[700]	39.32	57.08	97.47	115.70	157.21	175.89	218.49	237.64	281.34	300.96
30	[750]	42.09	61.04	104.21	123.64	167.91	187.77	233.15	253.51	299.96	320.79
32	[800]	44.85	65.00	110.94	131.57	178.60	199.68	247.83	269.36	318.60	340.60
34	[850]	47.64	68.98	117.68	139.49	189.30	211.57	262.49	285.25	337.23	360.43
36	[900]	50.42	72.94	124.42	147.43	200.00	223.47	277.15	301.09	355.85	380.26
38	[950]	53.19	76.91	131.17	155.36	210.70	235.36	291.81	316.96	374.47	400.08
40	[1000]	55.94	80.87	137.91	163.28	221.40	247.26	306.47	332.81	393.11	419.91
42	[1050]	58.72	84.83	144.64	171.21	232.09	259.17	321.15	348.68	411.74	439.74
44	[1100]	61.49	88.79	151.36	179.15	242.79	271.06	335.81	364.53	430.36	459.55
46	[1150]	64.25	92.75	158.09	187.08	253.49	282.96	350.47	380.40	449.00	479.38
48	[1200]	67.02	96.72	164.83	195.00	264.19	294.85	365.13	396.25	467.64	499.21

Cut to Length Pipe Covering Piece Lengths

Material Type(s)	Standard Piece Length	'Sold In' Lengths
Pyrogel XTE and XTF	5.00' (1.524m)	5.00' (1.524m)
Cryogel-Z	4.75' (1.448m)	4.75' (1.448m)

Cut to Length Pipe Covering List Price Formula

2016 Base Price × Material Type Multiplier (Page 2) = 2016 List Price



Cut to Length Pipe Covering (4" - 48" NPS) 2016 Base Price

		Insulation Thickness (55-100mm)									
NPS	[DN]	55	60	65	70	75	80	85	90	95	100
4	[100]	\$ 80.25	86.32	99.62	106.17	120.57	127.57	143.06	150.53	167.13	175.08
4½	[115]	85.89	92.25	106.26	113.09	128.21	135.49	151.68	159.45	176.75	184.96
5	[125]	92.25	98.94	113.74	120.89	136.79	144.42	161.38	169.49	187.57	196.13
6	[150]	104.26	111.58	127.85	135.64	153.00	161.26	179.72	188.45	207.98	217.19
7	[175]	115.55	123.49	141.13	149.53	168.26	177.13	196.94	206.30	227.21	237.02
8	[200]	126.85	135.38	154.40	163.40	183.53	192.98	214.21	224.13	246.43	256.85
9	[225]	138.15	147.26	167.70	177.28	198.79	208.85	231.43	241.98	265.66	276.66
10	[250]	150.87	160.64	182.62	192.91	215.96	226.70	250.85	262.06	287.30	298.96
11	[275]	162.15	172.55	195.91	206.77	231.21	242.55	268.09	279.91	306.53	318.79
12	[300]	173.45	184.43	209.19	220.64	246.47	258.42	285.32	297.74	325.75	338.62
14	[350]	187.58	199.30	225.79	238.00	265.57	278.25	306.91	320.04	349.77	363.40
15	[375]	198.89	211.21	239.06	251.87	280.83	294.09	324.13	337.89	369.00	383.23
16	[400]	210.17	223.11	252.34	265.75	296.09	309.96	341.38	355.72	388.23	403.06
17	[425]	221.47	235.00	265.64	279.62	311.36	325.81	358.62	373.57	407.45	422.87
18	[450]	232.77	246.91	278.91	293.51	326.60	341.68	375.87	391.40	426.70	442.70
19	[475]	244.06	258.79	292.19	307.38	341.87	357.53	393.11	409.25	445.92	462.53
20	[500]	255.36	270.68	305.45	321.25	357.13	373.40	410.36	427.08	465.15	482.34
21	[525]	266.66	282.58	318.75	335.13	372.40	389.25	427.60	444.94	484.38	502.17
22	[550]	277.94	294.47	332.02	349.00	387.66	405.11	444.85	462.79	503.60	522.00
23	[575]	289.25	306.38	345.30	362.89	402.92	420.96	462.09	480.62	522.83	541.81
24	[600]	300.55	318.26	358.58	376.75	418.19	436.83	479.34	498.47	542.06	561.66
26	[650]	323.13	342.06	385.15	404.51	448.70	468.55	513.83	534.15	580.51	601.30
28	[700]	345.74	365.85	411.72	432.26	479.23	500.26	548.32	569.83	618.96	640.96
30	[750]	368.34	389.62	438.26	460.02	509.77	531.98	582.81	605.51	657.42	680.60
32	[800]	390.94	413.42	464.83	487.79	540.28	563.72	617.30	641.21	695.89	720.25
34	[850]	413.53	437.21	491.38	515.55	570.81	595.43	651.79	676.89	734.34	759.91
36	[900]	436.11	461.00	517.94	543.30	601.34	627.15	686.28	712.57	772.79	799.55
38	[950]	458.72	484.77	544.49	571.06	631.85	658.87	720.75	748.25	811.25	839.19
40	[1000]	481.30	508.57	571.06	598.81	662.38	690.58	755.25	783.92	849.70	878.85
42	[1050]	503.91	532.36	597.62	626.57	692.91	722.30	789.75	819.64	888.15	918.51
44	[1100]	526.49	556.15	624.19	654.32	723.42	754.04	824.25	855.32	926.62	958.15
46	[1150]	549.08	579.96	650.75	682.06	753.96	785.75	858.74	891.00	965.08	997.81
48	[1200]	571.70	603.74	677.30	709.81	784.49	817.47	893.21	926.68	1,003.51	1,037.45



Cut to Length Pipe Covering

SMC Industries' Precision Cut to Length Pipe Covering is designed to eliminate waste of valuable material in the field. Cut to Length is designed to close with a smooth, butt joint allowing for easy staggering of seams in multi layer applications.



SMC Industries, Inc.

aspen|aerogels[®]

Aerogels Product Literature

PRECISION CUT SPECIALTY ITEMS

Tank Heads & Vessel Bodies

Perfectly fitted and precision cut tank head pieces are a cost effective alternative to field fabricated tank heads and vessel bodies. Multiple layers configurations utilizing a crown and petal design allows for staggering of pieces and no straight thru seams. Custom tank head calculation software combined with high yield nesting capabilities gives SMC the ability of quick turnaround with minimal material scrap thus keeping costs low.



Aero-Wrap



Aero-wrap can quickly cover all types of equipment such as valves, flanges, manifolds, pipe shoes, pipe supports, and short run piping. If you need to build shoulders for flanges and valves or quickly winterize a section of a pipe system, Aero-wrap is the perfect solution. Rolls are easily carried into the field to perform spiral wrapping for quick repair of damaged piping insulation.

Concentric & Eccentric Reducers

Cutting a pattern to properly cover a reducer is not an easy task. The complex curves are difficult to layout as well as cut. SMC's line of concentric and eccentric reducers eliminates these challenges. Precision cut to the correct length, with the correct curves, and a perfect butt joint, reducers have never been easier to install.



Aluminum Elbows



Why protect an Aspen Aerogels insulation system with ill-fitting, traditional pipe size and imperial thickness aluminum elbows? SMC can provide aluminum elbows specifically designed for aerogel thicknesses. Sizes available for butt weld, socket weld, and screwed elbows.





General Packaging & Shipping Data

Carton Dimensions

Carton	Length	Width	Height	Ft ³	per Pallet
A	17" (43.2 cm)	17" (43.2 cm)	12 ½" (31.8 cm)	1.97	35
B	17" (43.2 cm)	17" (43.2 cm)	25" (63.6 cm)	3.86	18
C	20" (50.8 cm)	26 ½" (67.3 cm)	21" (53.3 cm)	6.50	12
D	24" (61.0 cm)	30 ½" (77.5 cm)	24 ½" (62.2 cm)	10.80	6
E	26 ½" (67.3 cm)	34 ½" (87.6 cm)	30" (76.2 cm)	15.70	4
Q	26 ½" (67.3 cm)	34 ½" (87.6 cm)	21" (53.3 cm)	10.75	6
10 ½ X 10 ½	10 ½" (26.7 cm)	10 ½" (26.7 cm)	48" (121.9 cm)	3.06	12
7 X 7	7" (17.8 cm)	7" (17.8 cm)	48" (121.9 cm)	3.06	25
Gaylord	60" (152.4 cm)	40" (101.6 cm)	40" (101.6 cm)	55.60	1

Shipping Methods

Will Call / Hot Shot Shipments: All Will Call and Hot Shot orders will be available for pickup during normal shipping hours unless arranged in advance. Will Call and Hot Shot shipments will be loose loaded unless specifically requested ahead of time. A \$10.00 handling fee will be charged per pallet.

United Parcel Service Shipments: Only carton types A, B, C, D, 10 ½ X 10 ½, and 7 X 7 may ship via UPS. B, C, D, and 10 ½ X 10 ½ cartons are subject to dimensional weight standards, and ship at a minimum of 30 lbs. (B and C cartons) or 70 lbs. (D Cartons) for Ground Service. All A, B, C, D, 7 X 7, and 10 ½ X 10 ½ cartons are subject to dimensional weight standards when shipping 3 Day Select®, 2nd Day Air®, and Next Day Air®. Please contact the factory for a freight quote for these services. In addition to the actual freight costs, a \$5.00 handling fee per carton will be charged for all UPS shipments.

Less Than Truckload (LTL) Shipments: All SMC Aerogels will ship at Class 85. All paperwork and pallets will be marked with 'Top Load Only' and 'Do Not Remove From Pallet.' All cartons will be stretch wrapped and securely banded to the pallet. In order to calculate an accurate shipping weight, SMC will use a constant weight of 45 lbs. per pallet plus the weight of the cartons themselves. In addition to the actual freight costs, a \$10.00 handling fee will be charged per pallet.

Full Truckload Shipments: Unless otherwise requested, SMC Industries, Inc. will floor (loose) load all Full Truckload Shipments. SMC Industries, Inc. estimates one 'Full Truckload' as 3,600 cubic feet. Please allow for additional cubic footage due to packaging variations of partial cartons. All orders containing 50 or more cartons will have a cross off sheet included with the packing slip to ease the unloading process. In the cases of multiple order shipments, SMC Industries, Inc. will make every attempt to keep orders grouped together within the truck, but to maximize the utilization of the trailer, SMC Industries, Inc. cannot guarantee that orders will be kept together.