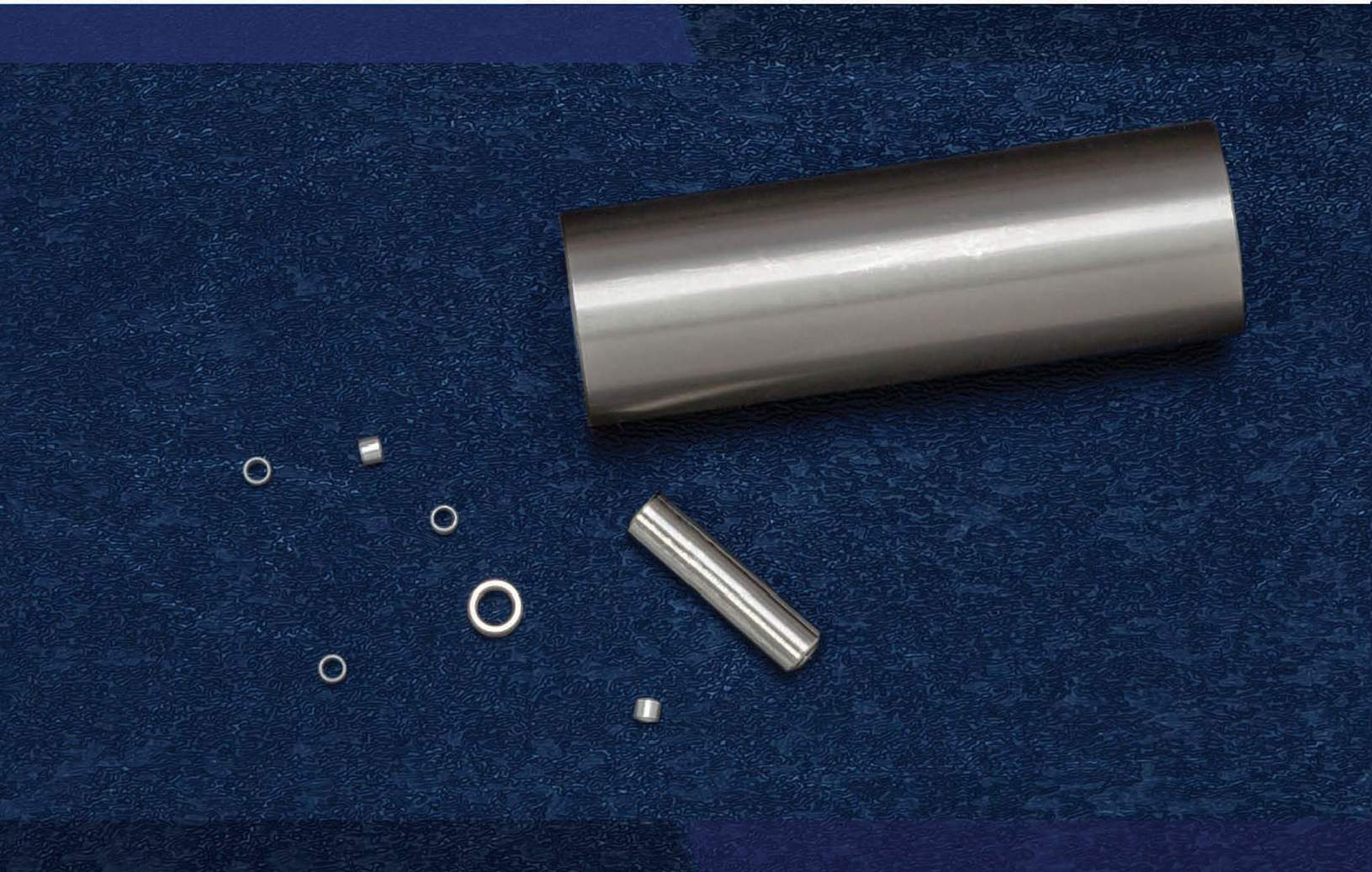




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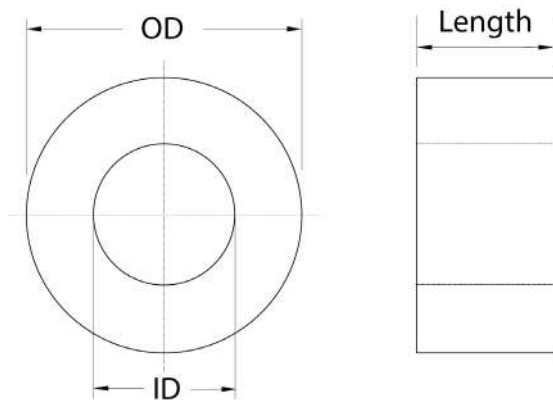
p: 317.472.9000
f: 317.472.9010

Product Information

Spacers are also known as sleeves, bushings and clear-hole spacers. Spacers are unthreaded hollow tubes that are primarily used to maintain space between components in assemblies. They are also selected to provide heat or electrical isolation and to connect parts to each other. Spacers are used in many applications that include circuit board spacing, furniture fastening, signage mounting, and gear/bearing assembly.

Spacers are ordered by OD and by Length. OD tolerance is plus to minus .005. The ID tolerance is plus .01 to minus 0. The Length tolerance is plus to minus .005. They are available to fit standard screw and bolt sizes. These spacers have excellent corrosion resistance.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 stainless steel material meet ASTM A582.
- Made from stainless steel, these spacers have good chemical resistance and maybe mildly magnetic.



Round Unthreaded Spacers – Inch

18-8 SS



1/8 OD

Length	Screw Size	ID	18-8 SS Part Number
3/32	#0	.064	ZSU18093-064-188
3/32	#2	.090	ZSU18093-090-188
5/32	#0	.064	ZSU18156-064-188
5/32	#2	.090	ZSU18156-090-188
3/16	#0	.064	ZSU18187-064-188
3/16	#2	.090	ZSU18187-090-188
7/32	#0	.064	ZSU18218-064-188
7/32	#2	.090	ZSU18218-090-188
9/32	#0	.064	ZSU18281-064-188
9/32	#2	.090	ZSU18281-090-188
11/32	#0	.064	ZSU18342-064-188
11/32	#2	.090	ZSU18342-090-188
13/32	#0	.064	ZSU18406-064-188
13/32	#2	.090	ZSU18406-090-188
7/16	#0	.064	ZSU18437-064-188
7/16	#2	.090	ZSU18437-090-188
15/32	#0	.064	ZSU18468-064-188
15/32	#2	.090	ZSU18468-090-188
1/2	#0	.064	ZSU18500-064-188
1/2	#2	.090	ZSU18500-090-188
9/16	#0	.064	ZSU18562-064-188
9/16	#2	.090	ZSU18562-090-188
5/8	#0	.064	ZSU18625-064-188
5/8	#2	.090	ZSU18625-090-188
11/16	#0	.064	ZSU18687-064-188
11/16	#2	.090	ZSU18687-090-188
3/4	#0	.064	ZSU18750-064-188
3/4	#2	.090	ZSU18750-090-188
13/16	#0	.064	ZSU18812-064-188
13/16	#2	.090	ZSU18812-090-188
7/8	#0	.064	ZSU18875-064-188
7/8	#2	.090	ZSU18875-090-188
15/16	#0	.064	ZSU18937-064-188
15/16	#2	.090	ZSU18937-090-188
1	#0	.064	ZSU181-064-188
1	#2	.090	ZSU181-090-188



3/16 OD

Length	Screw Size	ID	18-8 SS Part Number
3/32	#2	.090	ZSU316093-090-188
3/32	#4	.115	ZSU316096-115-188
13/16	#2	.090	ZSU316812-090-188
13/16	#4	.115	ZSU316812-115-188
15/16	#2	.090	ZSU316937-090-188
15/16	#4	.115	ZSU316937-115-188

1/4 OD

Length	Screw Size	ID	18-8 SS Part Number
3/32	#4	.115	ZSU14093-115-188
3/32	#6	.140	ZSU14093-140-188
1-5/8	#4	.115	ZSU141625-115-188
1-5/8	#6	.140	ZSU141625-140-188
1-7/8	#4	.115	ZSU141875-115-188
1-7/8	#6	.140	ZSU141875-140-188
2-1/4	#4	.115	ZSU14225-115-188
2-1/4	#6	.140	ZSU14225-140-188
2-1/2	#4	.115	ZSU14250-115-188
2-1/2	#6	.140	ZSU14250-140-188
2-3/4	#4	.115	ZSU14275-115-188
2-3/4	#6	.140	ZSU14275-140-188
3	#4	.115	ZSU14300-115-188
3	#6	.140	ZSU14300-140-188

5/16 OD

Length	Screw Size	ID	18-8 SS Part Number
3/32	#10	.192	ZSU516093-192-188
1-5/8	#10	.192	ZSU5161625-192-188
1-7/8	#10	.192	ZSU5161875-192-188
2-1/4	#10	.192	ZSU516225-192-188
2-1/2	#10	.192	ZSU516250-192-188
2-3/4	#10	.192	ZSU516275-192-188
3	#10	.192	ZSU516300-192-188



3/8 OD

Length	Screw Size	ID	18-8 SS Part Number
3/32	#10	.192	ZSU0.375093-192-188
2-3/4	#10	.192	ZSU0.375275-192-188
3	#10	.192	ZSU0.375300-192-188

1/2 OD

Length	Screw Size	ID	18-8 SS Part Number
1-5/8	1/4	.252	ZSU0.51625-252-188
1-7/8	1/4	.252	ZSU0.51875-252-188
2-3/4	1/4	.252	ZSU0.52750-252-188
3	1/4	.252	ZSU0.5300-252-188
3-1/4	1/4	.252	ZSU0.5325-252-188
3-1/2	1/4	.252	ZSU0.5350-252-188
3-3/4	1/4	.252	ZSU0.5375-252-188
4	1/4	.252	ZSU0.5400-252-188
4-1/2	1/4	.252	ZSU0.5450-252-188
5	1/4	.252	ZSU0.5500-252-188
5-1/2	1/4	.252	ZSU0.5550-252-188
6	1/4	.252	ZSU0.5600-252-188

5/8 OD

Length	Screw Size	ID	18-8 SS Part Number
1/8	1/4	.252	ZSU58125-252-188
3/16	1/4	.252	ZSU58187-252-188
11/16	1/4	.252	ZSU58687-252-188
13/16	1/4	.252	ZSU58812-252-188
15/16	1/4	.252	ZSU58937-252-188
1-5/8	1/4	.252	ZSU581625-252-188
1-7/8	1/4	.252	ZSU581875-252-188
2-3/4	1/4	.252	ZSU58275-252-188
3	1/4	.252	ZSU58300-252-188
3-1/4	1/4	.252	ZSU58325-252-188
3-1/2	1/4	.252	ZSU58350-252-188
3-3/4	1/4	.252	ZSU58375-252-188
4	1/4	.252	ZSU58400-252-188
4-1/2	1/4	.252	ZSU58450-252-188
5	1/4	.252	ZSU58500-252-188
5-1/2	1/4	.252	ZSU58550-252-188
6	1/4	.252	ZSU58600-252-188

3/4 OD

Length	Screw Size	ID	18-8 SS Part Number
1/8	5/16	.315	ZSU34125-315-188
3/16	5/16	.315	ZSU34187-315-188
1/4	5/16	.315	ZSU34250-315-188
5/16	5/16	.315	ZSU34312-315-188
7/16	5/16	.315	ZSU34437-315-188
9/16	5/16	.315	ZSU34562-315-188
11/16	5/16	.315	ZSU34687-315-188
13/16	5/16	.315	ZSU34812-315-188
15/16	5/16	.315	ZSU34937-315-188
1-1/8	5/16	.315	ZSU341125-315-188
1-3/8	5/16	.315	ZSU341375-315-188
1-5/8	5/16	.315	ZSU341625-315-188
1-7/8	5/16	.315	ZSU341875-315-188
2-3/4	5/16	.315	ZSU34275-315-188
3	5/16	.315	ZSU34300-315-188
3-1/4	5/16	.315	ZSU34325-315-188
3-1/2	5/16	.315	ZSU34350-315-188
3-3/4	5/16	.315	ZSU34375-315-188
4	5/16	.315	ZSU34400-315-188
4-1/2	5/16	.315	ZSU34450-315-188
5	5/16	.315	ZSU34500-315-188
5-1/2	5/16	.315	ZSU34550-315-188
6	5/16	.315	ZSU34600-315-188

1 OD

Length	Screw Size	ID	18-8 SS Part Number
1/8	1/2	.505	ZSU100125-505-188
1/4	1/2	.505	ZSU100250-505-188
5/8	1/2	.505	ZSU100625-505-188
7/8	1/2	.505	ZSU100875-505-188
1-1/8	1/2	.505	ZSU1001125-505-188
1-1/4	1/2	.505	ZSU1001250-505-188
1-3/8	1/2	.505	ZSU1001375-505-188
1-5/8	1/2	.505	ZSU1001625-505-188
1-3/4	1/2	.505	ZSU100175-505-188
1-7/8	1/2	.505	ZSU1001875-505-188
2-1/4	1/2	.505	ZSU100225-505-188
2-1/2	1/2	.505	ZSU100250-505-188

Round Unthreaded Spacers — Inch

18-8 SS



1 OD

Length	Screw Size	ID	18-8 SS Part Number
2-3/4	1/2	.505	ZSU100275-505-188
3	1/2	.505	ZSU100300-505-188
3-1/4	1/2	.505	ZSU100325-505-188
3-1/2	1/2	.505	ZSU100350-505-188
3-3/4	1/2	.505	ZSU100375-505-188
4	1/2	.505	ZSU100400-505-188
4-1/2	1/2	.505	ZSU100450-505-188
5	1/2	.505	ZSU100500-505-188
5-1/2	1/2	.505	ZSU100550-505-188
6	1/2	.505	ZSU100600-505-188

1-1/2 OD

Length	Screw Size	ID	18-8 SS Part Number
1/8	3/4	.750	ZSU112125-750-188
1/4	3/4	.750	ZSU112250-750-188
5/8	3/4	.750	ZSU112625-750-188
7/8	3/4	.750	ZSU112875-750-188
1-1/8	3/4	.750	ZSU1121125-750-188
1-1/4	3/4	.750	ZSU1121250-750-188
1-3/8	3/4	.750	ZSU1121375-750-188
1-5/8	3/4	.750	ZSU1121625-750-188
1-3/4	3/4	.750	ZSU1121750-750-188
1-7/8	3/4	.750	ZSU1121875-750-188
2-1/4	3/4	.750	ZSU1122250-750-188
2-1/2	3/4	.750	ZSU1122500-750-188
2-3/4	3/4	.750	ZSU112275-750-188
3	3/4	.750	ZSU112300-750-188
3-1/4	3/4	.750	ZSU112325-750-188
3-1/2	3/4	.750	ZSU112350-750-188
3-3/4	3/4	.750	ZSU112375-750-188
4	3/4	.750	ZSU112400-750-188
4-1/2	3/4	.750	ZSU112450-750-188
5	3/4	.750	ZSU112500-750-188
5-1/2	3/4	.750	ZSU112550-750-188
6	3/4	.750	ZSU112600-750-188

2 OD

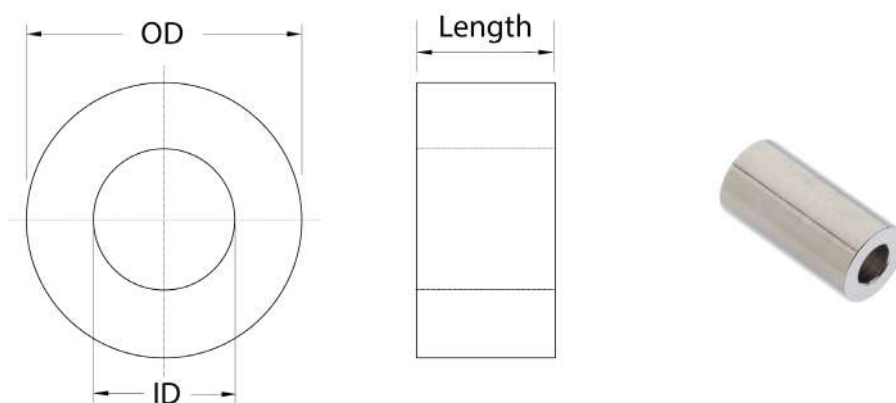
Length	Screw Size	ID	18-8 SS Part Number
1/4	1	1.000	ZSU2250-1-188
1/2	1	1.000	ZSU2500-1-188
3/4	1	1.000	ZSU2750-1-188
1	1	1.000	ZSU2100-1-188
1-1/4	1	1.000	ZSU21125-1-188
1-1/2	1	1.000	ZSU21500-1-188
1-3/4	1	1.000	ZSU21750-1-188
2	1	1.000	ZSU2200-1-188
2-1/4	1	1.000	ZSU2225-1-188
2-1/2	1	1.000	ZSU2250-1-188
2-3/4	1	1.000	ZSU2275-1-188
3	1	1.000	ZSU2300-1-188
3-1/4	1	1.000	ZSU2325-1-188
3-1/2	1	1.000	ZSU2350-1-188
3-3/4	1	1.000	ZSU2375-1-188
4	1	1.000	ZSU2400-1-188
4-1/2	1	1.000	ZSU2450-1-188
5	1	1.000	ZSU2500-1-188
5-1/2	1	1.000	ZSU2550-1-188
6	1	1.000	ZSU2600-1-188

Product Information

Spacers are also known as sleeves, bushings and clear-hole spacers. Spacers are unthreaded hollow tubes that are primarily used to maintain space between components in assemblies. They are also selected to provide heat or electrical isolation and to connect parts to each other. Spacers are used in many applications that include circuit board spacing, furniture fastening, signage mounting, and gear/bearing assembly.

Spacers are ordered by OD and by Length. OD tolerance is plus to minus .13mm. The ID tolerance is plus .3mm to minus 0. The Length tolerance is plus to minus .13mm. They are available to fit standard screw and bolt sizes. These spacers have excellent corrosion resistance.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- 18-8 Stainless Steel material meets ASTM A582.
- Made from stainless steel, these spacers have good chemical resistance and maybe mildly magnetic.



Round Unthreaded Spacers – Metric

18-8 (A2) SS



4.5mm OD

Length	Screw Size	ID	18-8 SS Part Number
7	M3	3.20	ZSUM4.5X7-3-188
9	M3	3.20	ZSUM4.5X9-3-188
11	M3	3.20	ZSUM4.5X11-3-188
12	M3	3.20	ZSUM4.5X12-3-188
15	M3	3.20	ZSUM4.5X15-3-188
17	M3	3.20	ZSUM4.5X17-3-188
18	M3	3.20	ZSUM4.5X18-3-188

6mm OD

Length	Screw Size	ID	18-8 SS Part Number
7	M4	4.20	ZSUM6X7-4-188
9	M4	4.20	ZSUM6X9-4-188
11	M4	4.20	ZSUM6X11-4-188
12	M4	4.20	ZSUM6X12-4-188
15	M4	4.20	ZSUM6X15-4-188
17	M4	4.20	ZSUM6X17-4-188
18	M4	4.20	ZSUM6X18-4-188
22	M4	4.20	ZSUM6X22-4-188
24	M4	4.20	ZSUM6X24-4-188
26	M4	4.20	ZSUM6X26-4-188
28	M4	4.20	ZSUM6X28-4-188

8mm OD

Length	Screw Size	ID	18-8 SS Part Number
7	M5	5.30	ZSUM8X7-5-188
9	M5	5.30	ZSUM8X9-5-188
11	M5	5.30	ZSUM8X11-5-188
12	M5	5.30	ZSUM8X12-5-188
15	M5	5.30	ZSUM8X15-5-188
17	M5	5.30	ZSUM8X17-5-188
18	M5	5.30	ZSUM8X18-5-188
22	M5	5.30	ZSUM8X22-5-188
24	M5	5.30	ZSUM8X24-5-188
26	M5	5.30	ZSUM8X26-5-188
28	M5	5.30	ZSUM8X28-5-188



10mm OD

Length	Screw Size	ID	18-8 SS Part Number
7	M5	5.30	ZSUM10X7-5-188
9	M5	5.30	ZSUM10X9-5-188
11	M5	5.30	ZSUM10X11-5-188
12	M5	5.30	ZSUM10X12-5-188
15	M5	5.30	ZSUM10X15-5-188
17	M5	5.30	ZSUM10X17-5-188
18	M5	5.30	ZSUM10X18-5-188
22	M5	5.30	ZSUM10X22-5-188
24	M5	5.30	ZSUM10X24-5-188
26	M5	5.30	ZSUM10X26-5-188
28	M5	5.30	ZSUM10X28-5-188

13mm OD

Length	Screw Size	ID	18-8 SS Part Number
7	M6	6.30	ZSUM13X7-6-188
9	M6	6.30	ZSUM13X9-6-188
11	M6	6.30	ZSUM13X11-6-188
12	M6	6.30	ZSUM13X12-6-188
15	M6	6.30	ZSUM13X15-6-188
17	M6	6.30	ZSUM13X17-6-188
18	M6	6.30	ZSUM13X18-6-188
22	M6	6.30	ZSUM13X22-6-188
24	M6	6.30	ZSUM13X24-6-188
26	M6	6.30	ZSUM13X26-6-188
28	M6	6.30	ZSUM13X28-6-188
50	M6	6.30	ZSUM13X50-6-188



16mm OD

Length	Screw Size	ID	18-8 SS Part Number
5	M10	10.00	ZSUM16X5-10-188
10	M10	10.00	ZSUM16X10-10-188
15	M10	10.00	ZSUM16X15-10-188
20	M10	10.00	ZSUM16X20-10-188
25	M10	10.00	ZSUM16X25-10-188
30	M10	10.00	ZSUM16X30-10-188
35	M10	10.00	ZSUM16X35-10-188
40	M10	10.00	ZSUM16X40-10-188
45	M10	10.00	ZSUM16X45-10-188
50	M10	10.00	ZSUM16X50-10-188
51	M10	10.00	ZSUM16X51-10-188

19mm OD

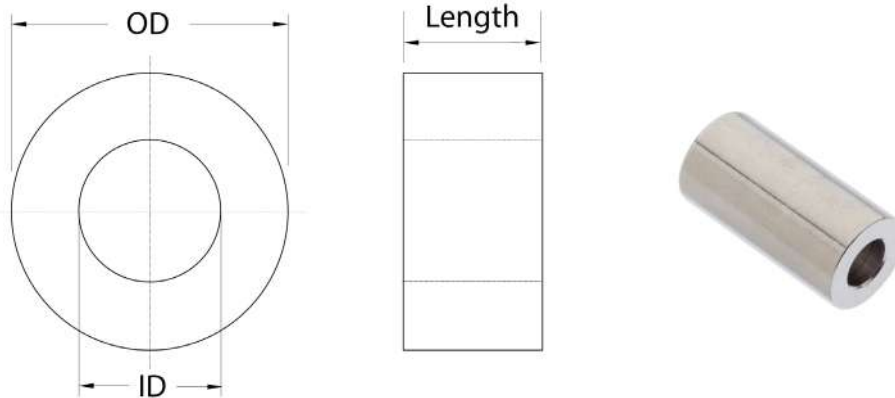
Length	Screw Size	ID	18-8 SS Part Number
5	M12	12.00	ZSUM19X5-12-188
10	M12	12.00	ZSUM19X10-12-188
15	M12	12.00	ZSUM19X15-12-188
20	M12	12.00	ZSUM19X20-12-188
25	M12	12.00	ZSUM19X25-12-188
30	M12	12.00	ZSUM19X30-12-188
35	M12	12.00	ZSUM19X35-12-188
40	M12	12.00	ZSUM19X40-12-188
45	M12	12.00	ZSUM19X45-12-188
50	M12	12.00	ZSUM19X50-12-188
51	M12	12.00	ZSUM19X51-12-188

Product Information

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Type 316 stainless spacers are also referred to as Accuracy Spacers. These parts are ground to maintain tight tolerances, and are 10 times tighter than standard spacers. OD tolerance is plus to minus .0005. The ID tolerance is plus .005 to minus 0. The Length tolerance is plus to minus .0015. They are available to fit standard screw and bolt sizes. These spacers have excellent corrosion resistance and are passivated for enhanced protection. Passivated stainless spacers provide added protection against oxidation and corrosion.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Type 316 Stainless Steel meets ASTM A276.
- Made from stainless steel, these spacers have good chemical resistance and maybe mildly magnetic.



Round Unthreaded Spacers – Inch

316 SS – Passivated



3/16 OD

Length	Screw Size	ID	316 SS Part Number
3/32	#6	.140	ZAS316094-140-316
1/8	#6	.140	ZAS316125-140-316
5/32	#6	.140	ZAS316156-140-316
3/16	#6	.140	ZAS316187-140-316
7/32	#6	.140	ZAS316218-140-316
1/4	#6	.140	ZAS316250-140-316
9/32	#6	.140	ZAS316281-140-316
5/16	#6	.140	ZAS316312-140-316
11/32	#6	.140	ZAS316343-140-316
3/8	#6	.140	ZAS316375-140-316
13/32	#6	.140	ZAS316406-140-316
7/16	#6	.140	ZAS316437-140-316
15/32	#6	.140	ZAS316468-140-316
1/2	#6	.140	ZAS316500-140-316
9/16	#6	.140	ZAS316562-140-316
5/8	#6	.140	ZAS316625-140-316
11/16	#6	.140	ZAS316687-140-316
3/4	#6	.140	ZAS316750-140-316
13/16	#6	.140	ZAS316812-140-316
7/8	#6	.140	ZAS316875-140-316
15/16	#6	.140	ZAS316937-140-316
1	#6	.140	ZAS316100-140-316

1/4 OD

Length	Screw Size	ID	316 SS Part Number
1/16	#8	.166	ZAS14562-166-316
3/32	#8	.166	ZAS14625-140-316
1/8	#6	.140	ZAS14094-140-316
1/8	#8	.166	ZAS14625-166-316
5/32	#6	.140	ZAS14094-166-316
5/32	#8	.166	ZAS14687-140-316
3/16	#6	.140	ZAS14125-140-316
3/16	#8	.166	ZAS14687-166-316
7/32	#6	.140	ZAS14125-166-316
7/32	#8	.166	ZAS14750-140-316
1/4	#6	.140	ZAS14156-140-316
1/4	#8	.166	ZAS14750-166-316
9/32	#6	.140	ZAS14156-166-316



1/4 OD

Length	Screw Size	ID	316 SS Part Number
9/32	#8	.166	ZAS14812-140-316
5/16	#6	.140	ZAS14187-140-316
5/16	#8	.166	ZAS14812-166-316
11/32	#6	.140	ZAS14187-166-316
11/32	#8	.166	ZAS14875-140-316
3/8	#6	.140	ZAS14218-140-316
3/8	#8	.166	ZAS14875-166-316
13/32	#6	.140	ZAS14218-166-316
13/32	#8	.166	ZAS14937-140-316
7/16	#6	.140	ZAS14250-140-316
7/16	#8	.166	ZAS14937-166-316
15/32	#6	.140	ZAS14250-166-316
15/32	#8	.166	ZAS14100-140-316
1/2	#6	.140	ZAS14281-140-316
1/2	#8	.166	ZAS14100-166-316
9/16	#6	.140	ZAS14281-166-316
9/16	#8	.166	ZAS141125-140-316
5/8	#6	.140	ZAS14312-140-316
5/8	#8	.166	ZAS141125-166-316
11/16	#6	.140	ZAS14312-166-316
11/16	#8	.166	ZAS141250-140-316
3/4	#6	.140	ZAS14343-140-316
3/4	#8	.166	ZAS141250-166-316
13/16	#6	.140	ZAS14343-166-316
13/16	#8	.166	ZAS141375-140-316
7/8	#6	.140	ZAS14375-140-316
7/8	#8	.166	ZAS141375-166-316
15/16	#6	.140	ZAS14375-166-316
15/16	#8	.166	ZAS141500-140-316
1	#6	.140	ZAS14406-140-316
1	#8	.166	ZAS141500-166-316
1-1/8	#6	.140	ZAS14406-166-316
1-1/8	#8	.166	ZAS141625-140-316
1-1/4	#6	.140	ZAS14437-140-316
1-1/4	#8	.166	ZAS141625-166-316
1-3/8	#6	.140	ZAS14437-166-316
1-3/8	#8	.166	ZAS141750-140-316
1-1/2	#6	.140	ZAS14468-140-316
1-1/2	#8	.166	ZAS141750-166-316



1/4 OD

Length	Screw Size	ID	316 SS Part Number
1-5/8	#6	.140	ZAS14468-166-316
1-5/8	#8	.166	ZAS141875-140-316
1-3/4	#6	.140	ZAS14500-140-316
1-3/4	#8	.166	ZAS141875-166-316
1-7/8	#6	.140	ZAS14500-166-316
1-7/8	#8	.166	ZAS14200-140-316
2	#6	.140	ZAS14562-140-316
2	#8	.166	ZAS14200-166-316

5/16 OD

Length	Screw Size	ID	316 SS Part Number
3/32	#10	.192	ZAS516093-192-316
1/8	#10	.192	ZAS516125-192-316
5/32	#10	.192	ZAS516156-192-316
3/16	#10	.192	ZAS516187-192-316
7/32	#10	.192	ZAS516218-192-316
1/4	#10	.192	ZAS516250-192-316
9/32	#10	.192	ZAS516281-192-316
5/16	#10	.192	ZAS516312-192-316
11/32	#10	.192	ZAS516343-192-316
3/8	#10	.192	ZAS516375-192-316
13/32	#10	.192	ZAS516406-192-316
7/16	#10	.192	ZAS516437-192-316
15/32	#10	.192	ZAS516468-192-316
1/2	#10	.192	ZAS516500-192-316
9/16	#10	.192	ZAS516562-192-316
5/8	#10	.192	ZAS516625-192-316
11/16	#10	.192	ZAS516687-192-316
3/4	#10	.192	ZAS516750-192-316
13/16	#10	.192	ZAS516812-192-316
7/8	#10	.192	ZAS516875-192-316
15/16	#10	.192	ZAS516937-192-316
1	#10	.192	ZAS516100-192-316
1-1/8	#10	.192	ZAS5161125-192-316
1-1/4	#10	.192	ZAS5161250-192-316
1-3/8	#10	.192	ZAS5161375-192-316
1-1/2	#10	.192	ZAS5161500-192-316
1-5/8	#10	.192	ZAS5161625-192-316
1-3/4	#10	.192	ZAS5161750-192-316
1-7/8	#10	.192	ZAS5161875-192-316
2	#10	.192	ZAS516200-192-316

3/8 OD

Length	Screw Size	ID	316 SS Part Number
1/8	#10	.192	ZAS38093-192-316
1/8	1/4	.252	ZAS12125-252-316
5/32	#10	.192	ZAS38125-192-316
3/16	#10	.192	ZAS38125-252-316
3/16	1/4	.252	ZAS12187-252-316
7/32	#10	.192	ZAS38156-192-316
1/4	#10	.192	ZAS38187-192-316
1/4	1/4	.252	ZAS12250-252-316
9/32	#10	.192	ZAS38187-252-316
5/16	#10	.192	ZAS38218-192-316
5/16	1/4	.252	ZAS12312-252-316
11/32	#10	.192	ZAS38250-192-316
3/8	#10	.192	ZAS38250-252-316
3/8	1/4	.252	ZAS12375-252-316
13/32	#10	.192	ZAS38281-192-316
7/16	#10	.192	ZAS38312-192-316
7/16	1/4	.252	ZAS12437-252-316
15/32	#10	.192	ZAS38312-252-316
1/2	#10	.192	ZAS38343-192-316
1/2	1/4	.252	ZAS12500-252-316
9/16	#10	.192	ZAS38375-192-316
9/16	1/4	.252	ZAS12562-252-316
5/8	#10	.192	ZAS38375-252-316
5/8	1/4	.252	ZAS12625-252-316
11/16	#10	.192	ZAS38406-192-316
11/16	1/4	.252	ZAS12687-252-316
3/4	#10	.192	ZAS38437-192-316
3/4	1/4	.252	ZAS12750-252-316
13/16	#10	.192	ZAS38437-252-316
13/16	1/4	.252	ZAS12812-252-316
7/8	#10	.192	ZAS38468-192-316
7/8	1/4	.252	ZAS12875-252-316
15/16	#10	.192	ZAS38500-192-316
15/16	1/4	.252	ZAS12937-252-316
1	#10	.192	ZAS38500-252-316
1	1/4	.252	ZAS12100-252-316
1-1/8	#10	.192	ZAS38562-192-316
1-1/8	1/4	.252	ZAS121125-252-316
1-1/4	#10	.192	ZAS38562-252-316
1-1/4	1/4	.252	ZAS121250-252-316
1-3/8	#10	.192	ZAS38625-192-316
1-3/8	1/4	.252	ZAS121375-252-316

Round Unthreaded Spacers – Inch

316 SS – Passivated



3/8 OD

Length	Screw Size	ID	316 SS Part Number
1-1/2	#10	.192	ZAS38625-252-316
1-1/2	1/4	.252	ZAS121500-252-316
1-5/8	#10	.192	ZAS38687-192-316
1-5/8	1/4	.252	ZAS121625-252-316
1-3/4	#10	.192	ZAS38687-252-316
1-3/4	1/4	.252	ZAS121750-252-316
1-7/8	#10	.192	ZAS38750-192-316
1-7/8	1/4	.252	ZAS121875-252-316
2	#10	.192	ZAS38750-252-316
2	1/4	.252	ZAS12200-252-316
2-1/4	1/4	.252	ZAS122250-252-316
2-1/2	1/4	.252	ZAS122500-252-316
2-3/4	1/4	.252	ZAS122750-252-316
3	1/4	.252	ZAS12300-252-316

1/2 OD

Length	Screw Size	ID	316 SS Part Number
1/16	1/4	.252	ZAS38812-192-316
1/8	1/4	.252	ZAS38812-252-316
3/16	1/4	.252	ZAS38875-192-316
1/4	1/4	.252	ZAS38875-252-316
5/16	1/4	.252	ZAS38937-192-316
3/8	1/4	.252	ZAS38937-252-316
7/16	1/4	.252	ZAS38100-192-316
1/2	1/4	.252	ZAS38100-252-316
9/16	1/4	.252	ZAS381125-192-316
5/8	1/4	.252	ZAS381125-252-316
11/16	1/4	.252	ZAS381250-192-316
3/4	1/4	.252	ZAS381250-252-316
13/16	1/4	.252	ZAS381375-192-316
7/8	1/4	.252	ZAS381375-252-316
15/16	1/4	.252	ZAS381500-192-316
1	1/4	.252	ZAS381500-252-316
1-1/8	1/4	.252	ZAS381625-192-316
1-1/4	1/4	.252	ZAS381625-252-316

1/2 OD

Length	Screw Size	ID	316 SS Part Number
1-3/8	1/4	.252	ZAS381750-192-316
1-1/2	1/4	.252	ZAS381750-252-316
1-5/8	1/4	.252	ZAS381875-192-316
1-3/4	1/4	.252	ZAS381875-252-316
1-7/8	1/4	.252	ZAS38200-192-316
2	1/4	.252	ZAS38200-252-316
2-1/4	1/4	.252	ZAS382250-252-316
2-1/2	1/4	.252	ZAS382500-252-316
2-3/4	1/4	.252	ZAS382750-252-316
3	1/4	.252	ZAS38300-252-316

3/4 OD

Length	Screw Size	ID	316 SS Part Number
1/8	3/8	.380	ZAS34125-380-316
3/16	3/8	.380	ZAS34187-380-316
1/4	3/8	.380	ZAS34250-380-316
5/16	3/8	.380	ZAS34312-380-316
3/8	3/8	.380	ZAS34375-380-316
7/16	3/8	.380	ZAS34437-380-316
1/2	3/8	.380	ZAS34500-380-316
5/8	3/8	.380	ZAS34625-380-316
3/4	3/8	.380	ZAS34750-380-316
7/8	3/8	.380	ZAS34875-380-316
1	3/8	.380	ZAS34100-380-316
1-1/8	3/8	.380	ZAS341125-380-316
1-1/4	3/8	.380	ZAS341250-380-316
1-3/8	3/8	.380	ZAS341375-380-316
1-1/2	3/8	.380	ZAS341500-380-316
1-5/8	3/8	.380	ZAS341625-380-316
1-3/4	3/8	.380	ZAS341750-380-316
1-7/8	3/8	.380	ZAS341875-380-316
2	3/8	.380	ZAS34200-380-316
2-1/4	3/8	.380	ZAS342250-380-316
2-1/2	3/8	.380	ZAS342500-380-316
2-3/4	3/8	.380	ZAS342750-380-316
3	3/8	.380	ZAS34300-380-316

1 OD

Length	Screw Size	ID	316 SS Part Number
1/8	1/2	.505	ZAS01125-505-316
1/4	1/2	.505	ZAS01250-505-316
3/8	1/2	.505	ZAS01375-505-316
1/2	1/2	.505	ZAS01500-505-316
5/8	1/2	.505	ZAS01625-505-316
3/4	1/2	.505	ZAS01750-505-316
7/8	1/2	.505	ZAS01875-505-316
1	1/2	.505	ZAS011-505-316
1-1/8	1/2	.505	ZAS011125-505-316
1-1/4	1/2	.505	ZAS011250-505-316
1-3/8	1/2	.505	ZAS011375-505-316
1-1/2	1/2	.505	ZAS011500-505-316
1-5/8	1/2	.505	ZAS011625-505-316
1-3/4	1/2	.505	ZAS011750-505-316
1-7/8	1/2	.505	ZAS011875-505-316
2	1/2	.505	ZAS01200-505-316
2-1/4	1/2	.505	ZAS012250-505-316
2-1/2	1/2	.505	ZAS012500-505-316
2-3/4	1/2	.505	ZAS012750-505-316
3	1/2	.505	ZAS013000-505-316

1-1/2 OD

Length	Screw Size	ID	316 SS Part Number
1/8	3/4	.750	ZAS1.5125-750-316
1/4	3/4	.750	ZAS1.5250-750-316
3/8	3/4	.750	ZAS1.5375-750-316
1/2	3/4	.750	ZAS1.5500-750-316
5/8	3/4	.750	ZAS1.5625-750-316
3/4	3/4	.750	ZAS1.5750-750-316
7/8	3/4	.750	ZAS1.5875-750-316
1	3/4	.750	ZAS1.5100-750-316
1-1/8	3/4	.750	ZAS1.51125-750-316
1-1/4	3/4	.750	ZAS1.51250-750-316
1-3/8	3/4	.750	ZAS1.51375-750-316
1-1/2	3/4	.750	ZAS1.51500-750-316
1-5/8	3/4	.750	ZAS1.51625-750-316
1-3/4	3/4	.750	ZAS1.51750-750-316
1-7/8	3/4	.750	ZAS1.51875-750-316
2	3/4	.750	ZAS1.5200-750-316
2-1/4	3/4	.750	ZAS1.52250-750-316
2-1/2	3/4	.750	ZAS1.52500-750-316
2-3/4	3/4	.750	ZAS1.52750-750-316
3	3/4	.750	ZAS1.5300-750-316

2 OD

Length	Screw Size	ID	316 SS Part Number
1/8	1	1.000	ZAS2125-1.0-316
1/4	1	1.000	ZAS2250-1.0-316
3/8	1	1.000	ZAS2375-1.0-316
1/2	1	1.000	ZAS2500-1.0-316
5/8	1	1.000	ZAS2625-1.0-316
3/4	1	1.000	ZAS2750-1.0-316
7/8	1	1.000	ZAS2875-1.0-316
1	1	1.000	ZAS2100-1.0-316
1-1/8	1	1.000	ZAS21125-1.0-316
1-1/4	1	1.000	ZAS21250-1.0-316
1-3/8	1	1.000	ZAS21375-1.0-316
1-1/2	1	1.000	ZAS21500-1.0-316
1-5/8	1	1.000	ZAS21625-1.0-316
1-3/4	1	1.000	ZAS21750-1.0-316
1-7/8	1	1.000	ZAS21875-1.0-316
2	1	1.000	ZAS2200-1.0-316
2-1/4	1	1.000	ZAS22250-1.0-316
2-1/2	1	1.000	ZAS22500-1.0-316
2-3/4	1	1.000	ZAS22750-1.0-316
3	1	1.000	ZAS2300-1.0-316

3 OD

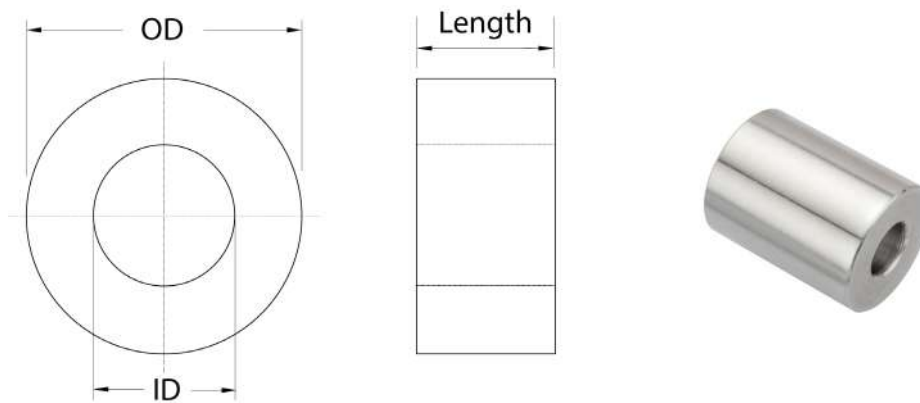
Length	Screw Size	ID	316 SS Part Number
1/8	1	1.000	ZAS3125-1.0-316
1/4	1	1.000	ZAS3250-1.0-316
3/8	1	1.000	ZAS3375-1.0-316
1/2	1	1.000	ZAS3500-1.0-316
5/8	1	1.000	ZAS3625-1.0-316
3/4	1	1.000	ZAS3750-1.0-316
7/8	1	1.000	ZAS3875-1.0-316
1	1	1.000	ZAS3100-1.0-316
1-1/8	1	1.000	ZAS31125-1.0-316
1-1/4	1	1.000	ZAS31250-1.0-316
1-3/8	1	1.000	ZAS31375-1.0-316
1-1/2	1	1.000	ZAS31500-1.0-316
1-5/8	1	1.000	ZAS31625-1.0-316
1-3/4	1	1.000	ZAS31750-1.0-316
1-7/8	1	1.000	ZAS31875-1.0-316
2	1	1.000	ZAS3200-1.0-316
2-1/4	1	1.000	ZAS32250-1.0-316
2-1/2	1	1.000	ZAS32500-1.0-316
2-3/4	1	1.000	ZAS32750-1.0-316
3	1	1.000	ZAS3300-1.0-316

Product Information

Spacers are also known as sleeves, bushings and clear-hole spacers. Spacers are unthreaded hollow tubes that are primarily used to maintain space between components in assemblies. They are also selected to provide heat or electrical isolation and to connect parts to each other. Spacers are used in many applications that include circuit board spacing, furniture fastening, signage mounting, and gear/bearing assembly.

Spacers are ordered by OD and by Length. OD tolerance is plus to minus .005. The ID tolerance is plus .01 to minus 0. The Length tolerance is plus to minus .005. They are available to fit standard screw and bolt sizes.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Made from aluminum, these spacers are lightweight, resist corrosion in wet environments and nonmagnetic.
- Aluminum is 6061 -T6 and meets ASTM B211.



Round Unthreaded Spacers – Inch Aluminum



1/8 OD

Length	Screw Size	ID	Aluminum Part Number
3/32	#0	.064	ZSU18093-064-ALU
3/32	#2	.090	ZSU18093-090-ALU
5/32	#0	.064	ZSU18156-064-ALU
5/32	#2	.090	ZSU18156-090-ALU
7/32	#0	.064	ZSU18218-064-ALU
7/32	#2	.090	ZSU18218-090-ALU
9/32	#0	.064	ZSU18281-064-ALU
9/32	#2	.090	ZSU18281-090-ALU
11/32	#0	.064	ZSU18342-064-ALU
11/32	#2	.090	ZSU18342-090-ALU
13/32	#0	.064	ZSU18406-064-ALU
13/32	#2	.090	ZSU18406-090-ALU
7/16	#0	.064	ZSU18437-064-ALU
7/16	#2	.090	ZSU18437-090-ALU
15/32	#0	.064	ZSU18468-064-ALU
15/32	#2	.090	ZSU18468-090-ALU
9/16	#0	.064	ZSU18562-064-ALU
9/16	#2	.090	ZSU18562-090-ALU
5/8	#0	.064	ZSU18625-064-ALU
5/8	#2	.090	ZSU18625-090-ALU
11/16	#0	.064	ZSU18687-064-ALU
11/16	#2	.090	ZSU18687-090-ALU
3/4	#0	.064	ZSU18750-064-ALU
3/4	#2	.090	ZSU18750-090-ALU
13/16	#0	.064	ZSU18812-064-ALU
13/16	#2	.090	ZSU18812-090-ALU
7/8	#0	.064	ZSU18875-064-ALU
7/8	#2	.090	ZSU18875-090-ALU
15/16	#0	.064	ZSU18937-064-ALU
15/16	#2	.090	ZSU18937-090-ALU
1	#0	.064	ZSU181-064-ALU
1	#2	.090	ZSU181-090-ALU



3/16 OD

Length	Screw Size	ID	Aluminum Part Number
3/32	#2	.090	ZSU316093-090-ALU
3/32	#4	.115	ZSU316096-115-ALU
13/16	#2	.090	ZSU316812-090-ALU
13/16	#4	.115	ZSU316812-115-ALU
15/16	#2	.090	ZSU316937-090-ALU
15/16	#4	.115	ZSU316937-115-ALU

1/4 OD

Length	Screw Size	ID	Aluminum Part Number
3/32	#4	.115	ZSU14093-115-ALU
3/32	#6	.140	ZSU14093-140-ALU
1-5/8	#4	.115	ZSU141625-115-ALU
1-5/8	#6	.140	ZSU141625-140-ALU
1-7/8	#4	.115	ZSU141875-115-ALU
1-7/8	#6	.140	ZSU141875-140-ALU
2-1/4	#4	.115	ZSU14225-115-ALU
2-1/4	#6	.140	ZSU14225-140-ALU
2-1/2	#4	.115	ZSU14250-115-ALU
2-1/2	#6	.140	ZSU14250-140-ALU
2-3/4	#4	.115	ZSU14275-115-ALU
2-3/4	#6	.140	ZSU14275-140-ALU
3	#4	.115	ZSU14300-115-ALU
3	#6	.140	ZSU14300-140-ALU

5/16 OD

Length	Screw Size	ID	Aluminum Part Number
3/32	#10	.192	ZSU516093-192-ALU
1-5/8	#10	.192	ZSU5161625-192-ALU
1-7/8	#10	.192	ZSU5161875-192-ALU
2-1/4	#10	.192	ZSU516225-192-ALU
2-1/2	#10	.192	ZSU516250-192-ALU
2-3/4	#10	.192	ZSU516275-192-ALU
3	#10	.192	ZSU516300-192-ALU



3/8 OD

Length	Screw Size	ID	Aluminum Part Number
3/32	#10	.192	ZSU0.375093-192-ALU
1-5/8	#10	.192	ZSU381625-192-ALU
1-7/8	#10	.192	ZSU381875-192-ALU
2-3/4	#10	.192	ZSU0.375275-192-ALU
3	#10	.192	ZSU0.375300-192-ALU

1/2 OD

Length	Screw Size	ID	Aluminum Part Number
1-5/8	1/4	.252	ZSU0.51625-252-ALU
1-7/8	1/4	.252	ZSU0.51875-252-ALU
2-3/4	1/4	.252	ZSU0.52750-252-ALU
3	1/4	.252	ZSU0.5300-252-ALU
3-1/4	1/4	.252	ZSU0.5325-252-ALU
3-1/2	1/4	.252	ZSU0.5350-252-ALU
3-3/4	1/4	.252	ZSU0.5375-252-ALU
4	1/4	.252	ZSU0.5400-252-ALU
4-1/2	1/4	.252	ZSU0.5450-252-ALU
5	1/4	.252	ZSU0.5500-252-ALU
5-1/2	1/4	.252	ZSU0.5550-252-ALU
6	1/4	.252	ZSU0.5600-252-ALU

5/8 OD

Length	Screw Size	ID	Aluminum Part Number
3/16	1/4	.252	ZSU58187-252-ALU
11/16	1/4	.252	ZSU58687-252-ALU
13/16	1/4	.252	ZSU58812-252-ALU
15/16	1/4	.252	ZSU58937-252-ALU
1-5/8	1/4	.252	ZSU581625-252-ALU
1-7/8	1/4	.252	ZSU581875-252-ALU
2-3/4	1/4	.252	ZSU58275-252-ALU
3	1/4	.252	ZSU58300-252-ALU
3-1/4	1/4	.252	ZSU58325-252-ALU
3-1/2	1/4	.252	ZSU58350-252-ALU
3-3/4	1/4	.252	ZSU58375-252-ALU
4	1/4	.252	ZSU58400-252-ALU
4-1/2	1/4	.252	ZSU58450-252-ALU
5	1/4	.252	ZSU58500-252-ALU
5-1/2	1/4	.252	ZSU58550-252-ALU
6	1/4	.252	ZSU58600-252-ALU

3/4 OD

Length	Screw Size	ID	Aluminum Part Number
1/8	5/16	.315	ZSU34125-315-ALU
3/16	5/16	.315	ZSU34187-315-ALU
7/16	5/16	.315	ZSU34437-315-ALU
9/16	5/16	.315	ZSU34562-315-ALU
11/16	5/16	.315	ZSU34687-315-ALU
13/16	5/16	.315	ZSU34812-315-ALU
15/16	5/16	.315	ZSU34937-315-ALU
1-1/8	5/16	.315	ZSU341125-315-ALU
1-3/8	5/16	.315	ZSU341375-315-ALU
1-5/8	5/16	.315	ZSU341625-315-ALU
1-7/8	5/16	.315	ZSU341875-315-ALU
2-3/4	5/16	.315	ZSU34275-315-ALU
3	5/16	.315	ZSU34300-315-ALU
3-1/4	5/16	.315	ZSU34325-315-ALU
3-1/2	5/16	.315	ZSU34350-315-ALU
3-3/4	5/16	.315	ZSU34375-315-ALU
4	5/16	.315	ZSU34400-315-ALU
4-1/2	5/16	.315	ZSU34450-315-ALU
5	5/16	.315	ZSU34500-315-ALU
5-1/2	5/16	.315	ZSU34550-315-ALU
6	5/16	.315	ZSU34600-315-ALU

1 OD

Length	Screw Size	ID	Aluminum Part Number
1/8	1/2	.505	ZSU100125-505-ALU
5/8	1/2	.505	ZSU100625-505-ALU
7/8	1/2	.505	ZSU100875-505-ALU
1-1/8	1/2	.505	ZSU1001125-505-ALU
1-1/4	1/2	.505	ZSU1001250-505-ALU
1-3/8	1/2	.505	ZSU1001375-505-ALU
1-5/8	1/2	.505	ZSU1001625-505-ALU
1-3/4	1/2	.505	ZSU100175-505-ALU
1-7/8	1/2	.505	ZSU1001875-505-ALU
2-1/4	1/2	.505	ZSU100225-505-ALU
2-1/2	1/2	.505	ZSU100250-505-ALU
2-3/4	1/2	.505	ZSU100275-505-ALU

Round Unthreaded Spacers – Inch

Aluminum



1 OD

Length	Screw Size	ID	Aluminum Part Number
3	1/2	.505	ZSU100300-505-ALU
3-1/4	1/2	.505	ZSU100325-505-ALU
3-1/2	1/2	.505	ZSU100350-505-ALU
3-3/4	1/2	.505	ZSU100375-505-ALU
4	1/2	.505	ZSU100400-505-ALU
4-1/2	1/2	.505	ZSU100450-505-ALU
5	1/2	.505	ZSU100500-505-ALU
5-1/2	1/2	.505	ZSU100550-505-ALU
6	1/2	.505	ZSU100600-505-ALU

1-1/2 OD

Length	Screw Size	ID	Aluminum Part Number
1/8	3/4	.750	ZSU112125-750-ALU
1/4	3/4	.750	ZSU112250-750-ALU
5/8	3/4	.750	ZSU112625-750-ALU
7/8	3/4	.750	ZSU112875-750-ALU
1-1/8	3/4	.750	ZSU1121125-750-ALU
1-1/4	3/4	.750	ZSU1121250-750-ALU
1-3/8	3/4	.750	ZSU1121375-750-ALU
1-5/8	3/4	.750	ZSU1121625-750-ALU
1-3/4	3/4	.750	ZSU1121750-750-ALU
1-7/8	3/4	.750	ZSU1121875-750-ALU
2-1/4	3/4	.750	ZSU1122250-750-ALU
2-1/2	3/4	.750	ZSU112250-750-ALU
2-3/4	3/4	.750	ZSU112275-750-ALU
3	3/4	.750	ZSU112300-750-ALU
3-1/4	3/4	.750	ZSU112325-750-ALU
3-1/2	3/4	.750	ZSU112350-750-ALU
3-3/4	3/4	.750	ZSU112375-750-ALU
4	3/4	.750	ZSU112400-750-ALU
4-1/2	3/4	.750	ZSU112450-750-ALU
5	3/4	.750	ZSU112500-750-ALU
5-1/2	3/4	.750	ZSU112550-750-ALU
6	3/4	.750	ZSU112600-750-ALU

2 OD

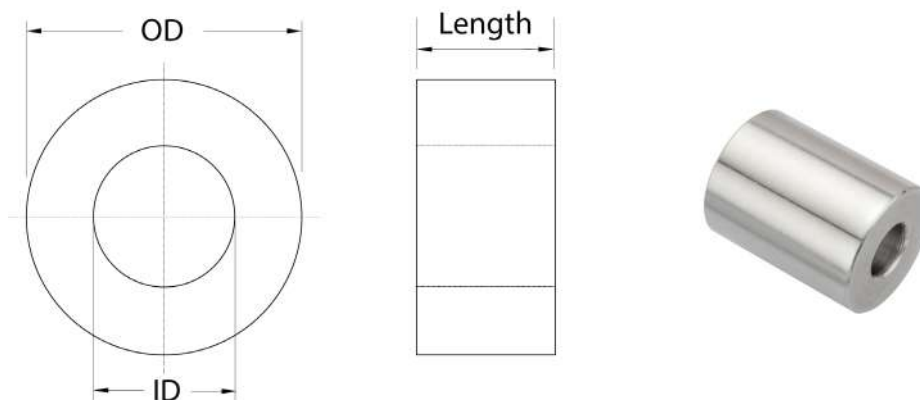
Length	Screw Size	ID	Aluminum Part Number
1/4	1	1.000	ZSU2250-1-ALU
1/2	1	1.000	ZSU2500-1-ALU
3/4	1	1.000	ZSU2750-1-ALU
1	1	1.000	ZSU2100-1-ALU
1-1/4	1	1.000	ZSU21125-1-ALU
1-1/2	1	1.000	ZSU21500-1-ALU
1-3/4	1	1.000	ZSU21750-1-ALU
2	1	1.000	ZSU2200-1-ALU
2-1/4	1	1.000	ZSU2225-1-ALU
2-1/2	1	1.000	ZSU2250-1-ALU
2-3/4	1	1.000	ZSU2275-1-ALU
3	1	1.000	ZSU2300-1-ALU
3-1/4	1	1.000	ZSU2325-1-ALU
3-1/2	1	1.000	ZSU2350-1-ALU
3-3/4	1	1.000	ZSU2375-1-ALU
4	1	1.000	ZSU2400-1-ALU
4-1/2	1	1.000	ZSU2450-1-ALU
5	1	1.000	ZSU2500-1-ALU
5-1/2	1	1.000	ZSU2550-1-ALU
6	1	1.000	ZSU2600-1-ALU

Product Information

Spacers are also known as sleeves, bushings and clear-hole spacers. Spacers are unthreaded hollow tubes that are primarily used to maintain space between components in assemblies. They are also selected to provide heat or electrical isolation and to connect parts to each other. Spacers are used in many applications that include circuit board spacing, furniture fastening, signage mounting, and gear/bearing assembly.

Spacers are ordered by OD and by Length. OD tolerance is plus to minus .13mm. The ID tolerance is plus .3mm to minus 0. The Length tolerance is plus to minus .13mm. They are available to fit standard screw and bolt sizes.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Aluminum is 6061 -T6 and meets ASTM B211.
- Made from aluminum, these spacers are lightweight, resist corrosion in wet environments and nonmagnetic.



Round Unthreaded Spacers – Metric

Aluminum



4.5mm OD

Length	Screw Size	ID	Aluminum Part Number
7	M3	3.20	ZSUM4.5X7-3-ALU
9	M3	3.20	ZSUM4.5X9-3-ALU
11	M3	3.20	ZSUM4.5X11-3-ALU
12	M3	3.20	ZSUM4.5X12-3-ALU
15	M3	3.20	ZSUM4.5X15-3-ALU
17	M3	3.20	ZSUM4.5X17-3-ALU
18	M3	3.20	ZSUM4.5X18-3-ALU

6mm OD

Length	Screw Size	ID	Aluminum Part Number
7	M3	3.20	ZSUM6X7-3-ALU
9	M3	3.20	ZSUM6X9-3-ALU
11	M3	3.20	ZSUM6X11-3-ALU
12	M3	3.20	ZSUM6X12-3-ALU
15	M3	3.20	ZSUM6X15-3-ALU
17	M3	3.20	ZSUM6X17-3-ALU
18	M3	3.20	ZSUM6X18-3-ALU
22	M3	3.20	ZSUM6X22-3-ALU
24	M3	3.20	ZSUM6X24-3-ALU
26	M3	3.20	ZSUM6X26-3-ALU
28	M3	3.20	ZSUM6X28-3-ALU

8mm OD

Length	Screw Size	ID	Aluminum Part Number
7	M5	5.30	ZSUM8X7-5-ALU
9	M5	5.30	ZSUM8X9-5-ALU
11	M5	5.30	ZSUM8X11-5-ALU
12	M5	5.30	ZSUM8X12-5-ALU
15	M5	5.30	ZSUM8X15-5-ALU
17	M5	5.30	ZSUM8X17-5-ALU
18	M5	5.30	ZSUM8X18-5-ALU
22	M5	5.30	ZSUM8X22-5-ALU
24	M5	5.30	ZSUM8X24-5-ALU
26	M5	5.30	ZSUM8X26-5-ALU
28	M5	5.30	ZSUM8X28-5-ALU



10mm OD

Length	Screw Size	ID	Aluminum Part Number
7	M5	5.30	ZSUM10X7-5-ALU
9	M5	5.30	ZSUM10X9-5-ALU
11	M5	5.30	ZSUM10X11-5-ALU
12	M5	5.30	ZSUM10X12-5-ALU
15	M5	5.30	ZSUM10X15-5-ALU
17	M5	5.30	ZSUM10X17-5-ALU
18	M5	5.30	ZSUM10X18-5-ALU
22	M5	5.30	ZSUM10X22-5-ALU
24	M5	5.30	ZSUM10X24-5-ALU
26	M5	5.30	ZSUM10X26-5-ALU
28	M5	5.30	ZSUM10X28-5-ALU

13mm OD

Length	Screw Size	ID	Aluminum Part Number
7	M6	6.30	ZSUM13X7-6-ALU
9	M6	6.30	ZSUM13X9-6-ALU
11	M6	6.30	ZSUM13X11-6-ALU
12	M6	6.30	ZSUM13X12-6-ALU
15	M6	6.30	ZSUM13X15-6-ALU
17	M6	6.30	ZSUM13X17-6-ALU
18	M6	6.30	ZSUM13X18-6-ALU
22	M6	6.30	ZSUM13X22-6-ALU
24	M6	6.30	ZSUM13X24-6-ALU
26	M6	6.30	ZSUM13X26-6-ALU
28	M6	6.30	ZSUM13X28-6-ALU
50	M6	6.30	ZSUM13X50-6-ALU



16mm OD

Length	Screw Size	ID	Aluminum Part Number
5	M10	10.00	ZSUM16X5-10-ALU
10	M10	10.00	ZSUM16X10-10-ALU
15	M10	10.00	ZSUM16X15-10-ALU
20	M10	10.00	ZSUM16X20-10-ALU
25	M10	10.00	ZSUM16X25-10-ALU
30	M10	10.00	ZSUM16X30-10-ALU
35	M10	10.00	ZSUM16X35-10-ALU
40	M10	10.00	ZSUM16X40-10-ALU
45	M10	10.00	ZSUM16X45-10-ALU
50	M10	10.00	ZSUM16X50-10-ALU
51	M10	10.00	ZSUM16X51-10-ALU

19mm OD

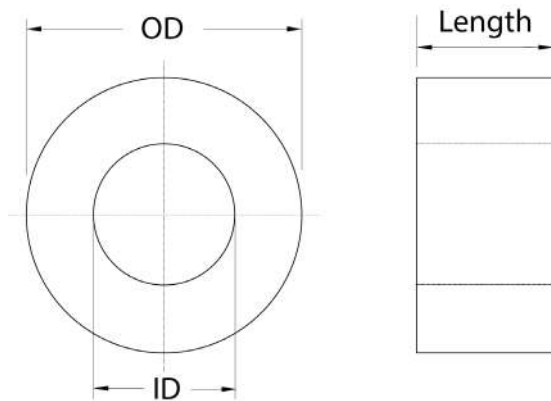
Length	Screw Size	ID	Aluminum Part Number
5	M12	12.00	ZSUM19X5-12-ALU
10	M12	12.00	ZSUM19X10-12-ALU
15	M12	12.00	ZSUM19X15-12-ALU
20	M12	12.00	ZSUM19X20-12-ALU
25	M12	12.00	ZSUM19X25-12-ALU
30	M12	12.00	ZSUM19X30-12-ALU
35	M12	12.00	ZSUM19X35-12-ALU
40	M12	12.00	ZSUM19X40-12-ALU
45	M12	12.00	ZSUM19X45-12-ALU
50	M12	12.00	ZSUM19X50-12-ALU
51	M12	12.00	ZSUM19X51-12-ALU

Product Information

Spacers are also known as sleeves, bushings and clear-hole spacers. Spacers are unthreaded hollow tubes that are primarily used to maintain space between components in assemblies. They are also selected to provide heat or electrical isolation and to connect parts to each other. Spacers are used in many applications that include circuit board spacing, furniture fastening, signage mounting, and gear/bearing assembly.

Spacers are ordered by OD and by Length. OD tolerance is plus to minus .006. The ID tolerance is plus .005 to minus 0. The Length tolerance is plus to minus .005. They are available to fit standard screw and bolt sizes.

- AMPG products are made in the USA, precision machined from DFARS compliant material, and lot traceable.
- Grade 2 Titanium material meets ASTM B348.
- Titanium spacers have high strength-to-weight ratio, excellent corrosion resistance and nonmagnetic.



Round Unthreaded Spacers – Inch

Grade 2 Titanium



1/4 OD

Length	Screw Size	ID	Titanium Part Number
1/8	#8	.166	ZAS14125-166-TI2
3/16	#8	.166	ZAS14187-166-TI2
1/4	#8	.166	ZAS14250-166-TI2
5/16	#8	.166	ZAS14312-166-TI2
3/8	#8	.166	ZAS14375-166-TI2
7/16	#8	.166	ZAS14437-166-TI2
1/2	#8	.166	ZAS14500-166-TI2
9/16	#8	.166	ZAS14562-166-TI2
5/8	#8	.166	ZAS14625-166-TI2
11/16	#8	.166	ZAS14687-166-TI2
3/4	#8	.166	ZAS14750-166-TI2
13/16	#8	.166	ZAS14812-166-TI2
7/8	#8	.166	ZAS14875-166-TI2
15/16	#8	.166	ZAS14937-166-TI2
1	#8	.166	ZAS14100-166-TI2
1-1/8	#8	.166	ZAS141125-166-TI2
1-1/4	#8	.166	ZAS141250-166-TI2
1-3/8	#8	.166	ZAS141375-166-TI2
1-1/2	#8	.166	ZAS141500-166-TI2
1-5/8	#8	.166	ZAS141625-166-TI2
1-3/4	#8	.166	ZAS141750-166-TI2
1-7/8	#8	.166	ZAS141875-166-TI2
2	#8	.166	ZAS142000-166-TI2

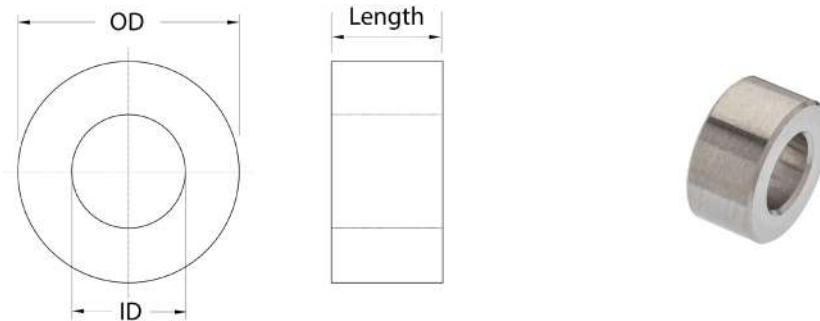
1/2 OD

Length	Screw Size	ID	Titanium Part Number
1/8	1/4	.252	ZAS14125-252-TI2
3/16	1/4	.252	ZAS14187-252-TI2
1/4	1/4	.252	ZAS14250-252-TI2
5/16	1/4	.252	ZAS14312-252-TI2
3/8	1/4	.252	ZAS14375-252-TI2
7/16	1/4	.252	ZAS14437-252-TI2
1/2	1/4	.252	ZAS14500-252-TI2
9/16	1/4	.252	ZAS14562-252-TI2
5/8	1/4	.252	ZAS14625-252-TI2
11/16	1/4	.252	ZAS14687-252-TI2
3/4	1/4	.252	ZAS14750-252-TI2
13/16	1/4	.252	ZAS14812-252-TI2
7/8	1/4	.252	ZAS14875-252-TI2
15/16	1/4	.252	ZAS14937-252-TI2
1	1/4	.252	ZAS14100-252-TI2
1-1/8	1/4	.252	ZAS141125-252-TI2
1-1/4	1/4	.252	ZAS141250-252-TI2
1-3/8	1/4	.252	ZAS141375-252-TI2
1-1/2	1/4	.252	ZAS141500-252-TI2
1-5/8	1/4	.252	ZAS141625-252-TI2
1-3/4	1/4	.252	ZAS141750-252-TI2
1-7/8	1/4	.252	ZAS141875-252-TI2
2	1/4	.252	ZAS142000-252-TI2
2-1/4	1/4	.252	ZAS142250-252-TI2
2-1/2	1/4	.252	ZAS142500-252-TI2
2-3/4	1/4	.252	ZAS142750-252-TI2
3	1/4	.252	ZAS143000-252-TI2

Product Information

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Spacers are ordered by OD and by Length. They are available to fit standard screw and bolt sizes.



How to Order

1. Choose material: Aluminum, Brass, Stainless, Steel.
2. Find the needed OD in your Material chart.
3. Specify OD, Length and ID in .001" increments. See Reference Table 1: Maximum Lengths by ID.

Minimum order quantity is 5 spacers.

Reference Table 1

Maximum Lengths by ID

For ID	Max. Spacer Lg.
.063 to .250	10x the ID
.251 to .500	9x the ID
.501 to .750	7x the ID
.751 and Up	5x the ID

Reference Table 2

IDs for Common Screw Sizes

For Screw Size	Use ID	For Screw Size	Use ID
No. 0	.064	1/4	.252
No. 2	.090	5/16	.315
No. 4	.115	3/8	.380
No. 6	.140	1/2	.505
No. 8	.166	5/8	.630
No. 10	.192	3/4	.800
No. 12	.218	1	1.005
		1-1/2	1.505