



Spira Tube Shielding Gasket Catalogue(A0)

BeCu Spira Tube Or Stainless Steel Spira Tube

(Passed IATF16949:2016 quality management system and ISO9001:2015 dual certification enterprise)



BeCu Spira Tube of EMIS has many outstanding performances.

1. superior conductivity and shielding properties.
2. BeCu spira tube with plated can exhibits excellent corrosion resistance .
3. Achieve better heat transfer cooling capabilities based on Bery copper characteristic.
4. Many standard items can be selected both BeCu Copper and SUS raw material.
5. BeCu spira can provide high elasticity and low relaxation based on spring performance
6. Add PVC etc can change different compression force.
7. All Products(including Plating)Can Fulfil SGS.ROHS.REACH etc ,Environmental Requirements.

■ Don't hesitate to contact me if have any questions. **E-mail: sales@emis-tech.com**

Manufactured by: ShenZhen EMIS Electron Materials Ltd . Co;

Updated Date:Jan1st, 2024 (the latest catalog. Visit: www.emis-tech.com)

I. Product classification

Spiral tube shielding gaskets are divided into beryllium copper spiral tube gaskets and stainless steel spiral tube shielding gaskets according to different materials.

Beryllium copper spiral tubes are high-performance electromagnetic shielding pads. Made of high-quality beryllium copper material, they have excellent elasticity and resistance to permanent compression deformation.

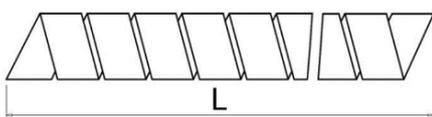
They can quickly recover to their original shape after being squeezed by external force, and can adapt to gaps of different shapes and sizes to ensure good contact and shielding effects; the surface of the spiral tube is tinned or nickel-plated to further improve its conductivity and shielding performance, and the edge-coated pads have strong resistance to electrochemical corrosion in humid and salt spray environments.

Stainless steel spiral tube shielding gaskets are spiral tube shielding strips made of stainless steel.

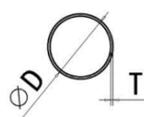
Stainless steel spiral tubes have excellent elasticity and compressive resistance, and can achieve significant support and retraction functions. They can be installed on plates of any thickness without additional support. In addition, stainless steel spiral tubes can also provide excellent shielding performance to protect electronic equipment from electromagnetic interference.

II. Product specifications and installation methods

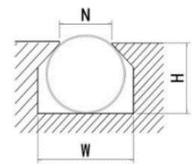
We can customize the width, thickness and outer diameter of beryllium copper/stainless steel raw materials according to your needs. This sealing gasket is installed in a groove. The specific installation method is shown in the figure. Standard product specifications are shown in the beryllium copper spiral tube parameter table:



Spiral pipe size reference diagram



I. Installed in standard O-ring groove



II. Install in dovetail groove

NO	Part Number	T (mm)	Diameter (D)	Length Max	Surface Finish	Inner Core	Mounted Size		
							W	H	N
1	STB-086	0.08	0.86 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-086-IC	1.20	0.58	0.84
2	STB-120	0.08	1.20 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-120-IC	1.60	0.90	1.15
3	STB-160	0.08	1.60 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-160-IC	2.38	1.16	1.52
4	STB-178	0.1	1.78 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-178-IC	2.38	1.35	1.70
5	STB-198	0.1	1.98 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-198-IC	2.76	1.50	1.90
6	STB-238	0.1	2.38 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-238-IC	3.20	1.78	2.30
7	STB-260	0.1	2.60 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-260-IC	3.60	1.95	2.50
8	STB-276	0.1	2.76 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-276-IC	4.00	2.10	2.67
9	STB-320	0.1	3.20 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-320-IC	4.40	2.38	3.10
10	STB-360	0.1	3.60 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-360-IC	4.80	2.67	3.50
11	STB-440	0.1	4.40 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-440-IC	5.95	3.25	4.20

12	STB-475	0.1	4.75 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-475-IC	6.35	3.60	4.60
13	STB-625	0.1	6.25 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-625-IC	8.70	4.70	6.10
14	STB-800	0.1	8.00 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-800-IC	10.70	6.00	7.62
15	STB-960	0.1	9.60 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-960-IC	12.70	7.10	9.24
16	STB-1270	0.1	12.70 mm	10meters	Bright. Nickel. Tin. Gold. silver	STB-1270-IC	16.70	9.60	12.30

We can also use stainless steel to make spira tube. Part number as below.

NO	Part Number	T (mm)	Diameter	Length Max /Coil	Surface Finish	Inner Core P/N	Mounted Size		
							W	H	N
1	STS-086	0.08	0.86 mm	10meters	Bright. Nickel. Tin etc	STS-086-IC	1.20	0.58	0.84
2	STS-120	0.08	1.20 mm	10meters	Bright. Nickel. Tin etc	STS-120-IC	1.60	0.90	1.15
3	STS-160	0.08	1.60 mm	10meters	Bright. Nickel. Tin etc	STS-160-IC	2.38	1.16	1.52
4	STS-178	0.1	1.78 mm	10meters	Bright. Nickel. Tin etc	STS-178-IC	2.38	1.35	1.70
5	STS-198	0.1	1.98 mm	10meters	Bright. Nickel. Tin etc	STS-198-IC	2.76	1.50	1.90
6	STS-238	0.1	2.38 mm	10meters	Bright. Nickel. Tin etc	STS-238-IC	3.20	1.78	2.30
7	STS-260	0.1	2.60 mm	10meters	Bright. Nickel. Tin etc	STS-260-IC	3.60	1.95	2.50
8	STS-276	0.1	2.76 mm	10meters	Bright. Nickel. Tin etc	STS-276-IC	4.00	2.10	2.67
9	STS-320	0.1	3.20 mm	10meters	Bright. Nickel. Tin etc	STS-320-IC	4.40	2.38	3.10
10	STS-360	0.1	3.60 mm	10meters	Bright. Nickel. Tin etc	STS-360-IC	4.80	2.67	3.50
11	STS-440	0.1	4.40 mm	10meters	Bright. Nickel. Tin etc	STS-440-IC	5.95	3.25	4.20
12	STS-475	0.1	4.75 mm	10meters	Bright. Nickel. Tin etc	STS-475-IC	6.35	3.60	4.60
13	STS-625	0.1	6.25 mm	10meters	Bright. Nickel. Tin etc	STS-625-IC	8.70	4.70	6.10
14	STS-800	0.1	8.00 mm	10meters	Bright. Nickel. Tin etc	STS-800-IC	10.70	6.00	7.62
15	STS-960	0.1	9.60 mm	10meters	Bright. Nickel. Tin etc	STS-960-IC	12.70	7.10	9.24
16	STS-1270	0.1	12.7 mm	10meters	Bright. Nickel. Tin etc	STS-1270-IC	16.70	9.60	12.30

III. Application Field

Beryllium copper spiral tube is a high-performance electromagnetic shielding gasket. This shielding gasket material is an ideal shielding material for military and aerospace projects, as well as some civilian electronic equipment that requires efficient shielding and sealing, and can be widely used in shielding problems that other gaskets cannot solve. The shielding effectiveness of this sealing gasket is 86dB to 165dB.

Stainless steel spiral tube is also a high-performance electromagnetic shielding gasket. This product is very suitable for civilian applications and complies with European Directive 83528. These gaskets can provide more than 95 dB shielding quality at 1 GHz.

IV. Product Technical Parameters

Raw Materials:

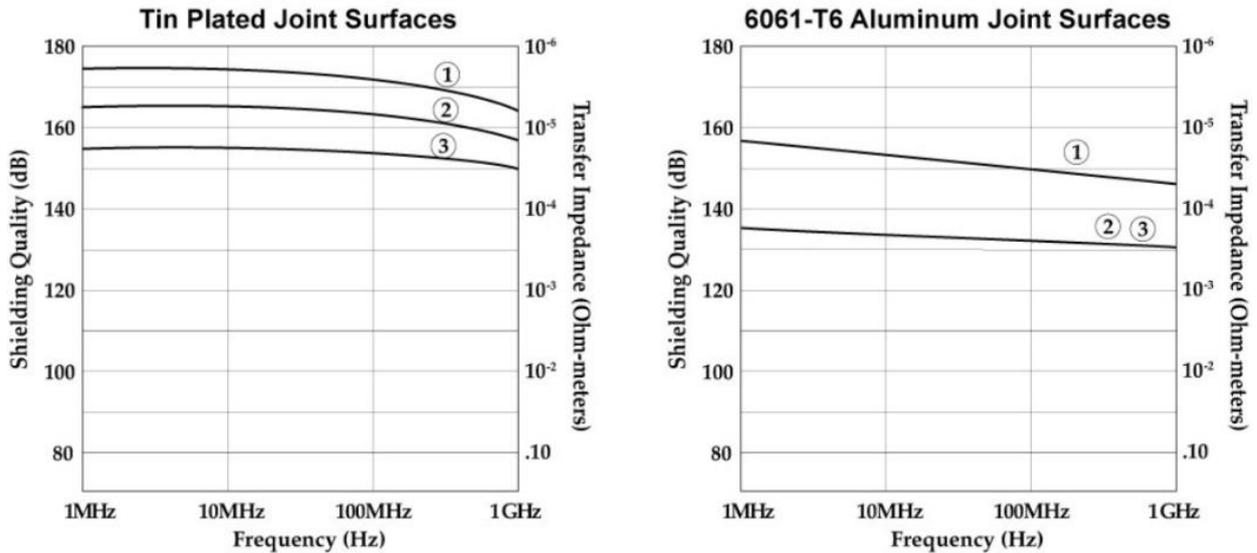
Spiral Tube: Tin-Plated Beryllium Copper (No-Lead)

Tube Core: PVC Hardness 80.

Shielding Effectiveness:

Shielding Quality: In the 1MHz-1GHz frequency band, its shielding effectiveness exceeds 80dB (80dB-160dB).

(As shown in the figure below)



- Note:**
- ① Standard elastic tin-plated beryllium copper spiral tube gasket;
 - ② Medium elastic tin-plated beryllium copper spiral tube gasket;
 - ③ Low elastic tin-plated beryllium copper spiral tube gasket.

V. Compression Elasticity

Beryllium copper spiral tube shielding gaskets are divided into the following two different compression elasticities. The ideal compression is 25% of the spiral tube diameter. Since the pressure is related to the thickness of the beryllium copper raw material, the approximate value of the elasticity is marked in the table below:

Diameter (mm)	Standard Stretch*	Medium elasticity
0.86+/-0.051	SS-02	MS-02 NC**
1.20+/-0.051	SS-03	MS-03 NC**
1.60+/-0.076	SS-04	MS-04
1.78+/-0.076	SS-.070	MS-.070
1.98+/-0.076	SS-05	MS-05
2.38+/-0.102	SS-06	MS-06
2.60+/-0.102	SS-.103	MS-.103
2.76+/-0.102	SS-07	MS-07
3.20+/-0.102	SS-08	MS-08
3.60+/-0.127	SS-09	MS-09
4.40+/-0.127	SS-11	MS-11
4.75+/-0.152	SS-12	MS-12
6.25+/-0.178	SS-16	MS-16
8.00+/-0.229	SS-20	MS-20
9.60+/-0.279	SS-24	MS-24
12.70+/-0.381	SS-32	MS-32

Note: * indicates that the standard elastic spiral tube does not have an inner core,
 ** indicates that this model cannot have an inner core

Standard elasticity: 4.8 kg/cm (average); Medium elasticity: 1.6 kg/cm (average)