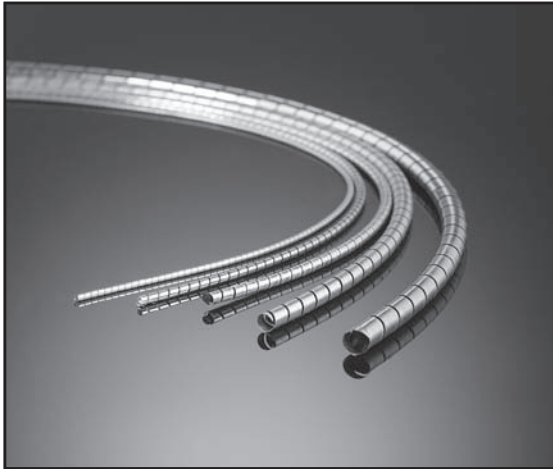
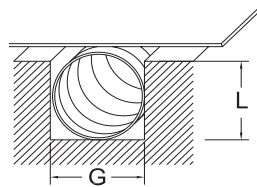


Spira-Shield

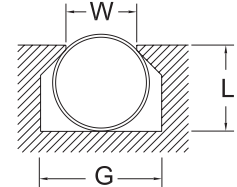


The Spira-Shield patented spiral is the basis for all of our unique high shielding EMI gasketing solutions. The spiral is wound out of spring temper beryllium copper for excellent spring memory and compression set resistance. The spiral is tin plated for superior conductivity and shielding properties. The edge plated version exhibits excellent corrosion resistance against aluminum when exposed to humid or salt-fog environments.



standard o-ring groove

See page 47 for groove mounting techniques.



dovetail groove

Spira-Shield Part Numbers (Tin/Lead Plated Beryllium Copper)				Recommended Groove Dimensions		
Diameter	Standard Force*	Moderate Force	Low Force	Depth (L) +.002"-.000"	Width (G) +.007"-.005"	Width (W) +.000"-.002"
.034" ± .002"	SS-02	MS-02 NC**	--	.023"	.046"	.033"
.047" ± .002"	SS-03	MS-03 NC**	--	.035"	.063"	.045"
.063" ± .003"	SS-04	MS-04	LS-04	.046"	.094"	.060"
.070" ± .003"	SS-.070	MS-.070	LS-.070	.053"	.094"	.067"
.078" ± .003"	SS-05	MS-05	LS-05	.059"	.109"	.075"
.094" ± .004"	SS-06	MS-06	LS-06	.070"	.125"	.090"
.103" ± .004"	SS-.103	MS-.103	LS-.103	.077"	.141"	.099"
.109" ± .004"	SS-07	MS-07	LS-07	.082"	.156"	.105"
.125" ± .004"	SS-08	MS-08	LS-08	.094"	.171"	.121"
.139" ± .005"	SS-.139	MS-.139	LS-.139	.104"	.187"	.134"
.141" ± .005"	SS-09	MS-09	LS-09	.105"	.187"	.136"
.172" ± .005"	SS-11	MS-11	LS-11	.128"	.234"	.165"
.187" ± .006"	SS-12	MS-12	LS-12	.140"	.250"	.181"
.250" ± .007"	SS-16	MS-16	LS-16	.185"	.343"	.240"
.312" ± .009"	SS-20	MS-20	LS-20	.234"	.422"	.300"
.375" ± .011"	SS-24	MS-24	LS-24	.280"	.500"	.364"
.500" ± .015"	--	MS-32	LS-32	.375"	.656"	.485"

Moderate and low force gaskets come with a cord unless specified otherwise. (See Options).

*All standard force gaskets come without a cord. **These gaskets cannot come with a cord.

See page 47 for groove mounting techniques.

Dovetail Groove Cutters detailed on page 32.

Application Information

This high-shielding gasket is well known for solving shielding problems that no other gasket can solve, and is perfect for military and aerospace projects. However, the cost is competitive enough that this gasket is also perfect for many commercial applications that require high-shielding.

Materials

See page 55 for material specifications.

Spiral: Tin/lead plated beryllium copper. (See Options for RoHS compliance).
Electroplated, 90% tin, 10% lead per AMS-P-81728 (edges unplated).

Cord: 80 durometer PVC (hard plastic).



Shielding Quality

This gasket offers shielding quality up to 165 dB. The shielding quality may vary depending on your specific application. Refer to page 44 for more complete performance data.

Compression Force

Spira-Shield gaskets come in three different resiliencies (as shown below). Optimal compression of the gasket is 25% of the diameter of the spiral. Since the force to compress the gasket is a function of the cube of the thickness of the beryllium copper ribbon, the compression forces shown are approximate.

Standard Force: ~30 pounds per linear inch compression.

Moderate Force: ~10 pounds per linear inch compression.

Low Force: ~1.5 pounds per linear inch compression.

Mounting

This gasket is groove mounted. See page 47 for detailed mounting information.

Available Options

Custom Sizes

We can manufacture Spira-Shield gaskets in any size diameter, from .034" up to approximately 1.5". There are no special charges involved, but the functional length of the part may be small at very large diameters. Please contact us with your requirements.

Plating

Specify plating by choosing the desired prefix from the table.

*Example:
EIWLS-12
RoHS edge tin plated
Low Force*

See page 56 for material compatibility information.

Plating options can be specified by adding a prefix before the part number:

E: Edge tin/lead plating (includes edges) for high humidity or salt-fog environments

IW: RoHS compliant tin plating (Example: **IWMS-08**)

EIW: RoHS compliant edge tin plating for high humidity or salt-fog

Material	Force	Tin/lead Plating	RoHS Tin	Edge Tin/Lead	RoHS Edge Tin
Beryllium Copper	Standard	SS (default)	IWSS	ESS	EIWSS
	Moderate	MS	IWMS	EMS	EIWMS
	Low	LS	IWLS	ELS	EIWLS

Additional plating options are available by special request including: Reflow edge tin plating (R), Gold (G) and Sulfamate Nickel (N).

Cord Insert

Moderate and low force gaskets come standard with PVC cord. The cord acts as a mechanical stop to protect the spiral from over-compression during use and handling. Specify "no cord" in the moderate and low force gaskets as follows:

NC: No Cord (Example: **MS-08 NC**)

All Standard Force gaskets come without cord (no NC required).

Special Cord

Special cords can be specified as follows (may not be available in all sizes and may include extra charges):

-F: Solid Fluorosilicone Cord (Example: **MS-08-F**)

-O: Space Qualified Silicone (non-outgassing)

-S: Solid Silicone Cord

-T: Thermal Plastic Rubber Cord

Ordering Information

Spira-Shield is sold by the foot and typically packaged on spools except in small quantities. It can also be ordered cut-to-length in specific sizes or you can cut it yourself using a sharp pair of scissors. Custom o-rings are also available as described on page 33.

