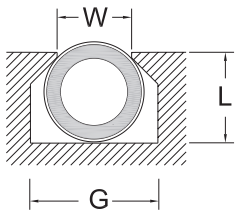
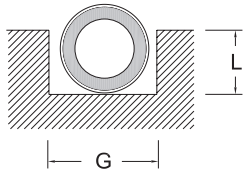


Spira's Flexi-Shield gasket offers the best of both worlds! This gasket combines the EMI shielding performance of our other spiral gaskets with the rain/wind/dust sealing of an elastomer! A special process wraps our highly conductive spiral around a soft silicone tube. This results in gaskets that are very easy to handle, are rugged enough to be used in demanding sliding applications, provide as little as two pounds of closure force per inch, and offer moderate to high shielding, depending on the materials chosen. The low force series is especially well-suited to shielding the front/rear panels of VME/VXI and similar enclosures.



Flexi-Shield mounted in dovetail groove.



Flexi-Shield mounted in standard o-ring groove.

Flexi-Shield Part Numbers (Stainless Steel)				Recommended Groove Dimensions*		
Diameter	Standard Force	Moderate Force	Low Force	Depth (L) +.002"- .000"	Width (G) +.007"- .005"	Width (W) +.000"- .002"
.063" ± .003"	SQ-04	MQ-04	LQ-04	.046"	.094"	.060"
.070" ± .003"	SQ-.070	MQ-.070	LQ-.070	.053"	.094"	.067"
.094" ± .004"	SQ-06	MQ-06	LQ-06	.070"	.125"	.090"
.103" ± .004"	SQ-.103	MQ-.103	LQ-.103	.077"	.141"	.099"
.106" ± .004"	SQ-.106	MQ-.106	LQ-.106	.080"	.141"	.102"
.125" ± .004"	SQ-08	MQ-08	LQ-08	.094"	.171"	.121"
.139" ± .005"	SQ-.139	MQ-.139	LQ-.139	.104"	.187"	.134"
.141" ± .005"	SQ-09	MQ-09	LQ-09	.105"	.187"	.136"
<b>.187" ± .008"</b>	<b>SQ-12</b>	<b>MQ-12</b>	<b>LQ-12</b>	<b>.140"</b>	<b>.250"</b>	<b>.181"</b>
<b>.250" ± .010"</b>	<b>SQ-16</b>	<b>MQ-16</b>	<b>LQ-16</b>	<b>.185"</b>	<b>.343"</b>	<b>.240"</b>

\*Different groove required for VME/VXI and similar front/rear panel shielding. Refer to our VME/VXI Shielding Design Guide on our website for details.

Note: Larger sizes may be available. Contact us for more information.

See page 47 for groove mounting techniques.

Dovetail Groove Cutters detailed on page 32.

## Application Information

Whether you need moderate to high shielding levels, rain/wind/dust sealing, or simply want the ease of handling that the inner tube provides, Spira's Flexi-Shield comes through for you. All the benefits for one low cost!

### Shielding Quality

We offer stainless steel for moderate shielding quality, and optional tin plating for higher shielding levels. All shielding quality results are based on tests against tin plated joint surfaces. The shielding quality may vary depending on your specific application. Refer to page 46 for more complete data.

**Stainless Steel (All Forces):** 100 dB at 1 GHz

**Low Force Tin Plated Gaskets:** 120 dB at 1 GHz

**Moderate and Standard Force Tin Plated Gaskets:** 130 dB at 1 GHz

### Low Closure Force

The low force series is ideal for applications with very little closure force (approximately two pounds per linear inch compression). The gasket resists compression set, is very easy to handle and will provide a rain/wind/dust seal.

## VME/VXI and Similar Front/Rear Panels

The low force gasket is the best choice for shielding front and back panels of VME/VXI and similar enclosures. The gaskets are easy to insert and testing shows no visible wear after 1,000 insertions! Flexi-Shield gaskets are manufactured from a continuous piece of metal, so they have no small pieces to break off and short out equipment. For specific design information, refer to our *VME/VXI Shielding Design Guide*.

## Sliding Applications

All versions of Flexi-Shield are ideally suited for sliding applications. Specify moderate or standard force Flexi-Shield where extreme durability is required.

## Materials

**Spiral:** Stainless steel (tin plating optional).

**Inner Tubing:** 40 ± 5 durometer silicone.

## Environmental Sealing

Our testing shows that all sizes and all resiliencies offer a rain/wind/dust seal. (We have other gaskets that provide an immersion seal). Contact us for free samples to determine if this gasket meets your environmental sealing needs!

## Compression Force

Flexi-Shield gaskets come in three different resiliencies (as shown below). Optimal compression of the gasket is 25% of the diameter of the spiral (except in the case of VME/VXI designs. Please refer to our *VME/VXI Shielding Design Guide*). Since the force to compress the gasket is a function of the cube of the thickness of the stainless steel 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:** ~2 pounds per linear inch compression.

## Mounting

Refer to Groove Mounting Techniques for detailed mounting information. Refer to our *VME/VXI Shielding Design Guide* on our website for more information.

## Available Options

### Materials & Plating

See pages 55-56 for material specifications & compatibility information.

Plating for stainless steel Flexi-Shield can be specified using the following prefix:

**T:** Tin/lead plating over the stainless steel for better shielding quality

Electroplated 90% tin, 10% lead per AMS-P-81728 (Example: **TSQ-04**)

**IW:** RoHS compliant tin plating (Example: **IWSQ-04**)

Tin plated beryllium copper material may be substituted if desired. An edge plated version is also available for high humidity/salt-fog environments as shown below.

Specify material by choosing the desired prefix from the table.

Example:  
**EIWM-08**  
RoHS edge tin plated beryllium copper Moderate Force

Material	Force	No Plating	Tin/lead Plating	RoHS Tin	Edge Tin/Lead	RoHS Edge Tin
Stainless Steel	Standard	SQ (default) MQ LQ	TSQ	IWSQ	--	--
	Moderate		TMQ	IWMQ		
	Low		TLQ	IWLQ		
Beryllium Copper	Standard	--	ST	IWST	EST	EIWST
	Moderate		MT	IWMT	EMT	EIWMT
	Low		LT	IWLT	ELT	EIWLT

## Special Tubing

Fluorosilicone tubing can be specified as follows (may include extra charges):

**-F:** Fluorosilicone tubing (Example: **SQ-04-F**)

## Ordering Information

Flexi-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.

