

**WR-90 Twistable Flexible Waveguide Using UG-39/U Square Cover Flange With a 8.2 GHz to 12.4 GHz Frequency Range**

The SMW90TF005-36 is one of Fairview Microwave's flexible, twistable sections which operates in the 8.2 to 12.4 GHz range. It can be twisted and/or bent in both the E and H planes without impairing VSWR or attenuation because of its silver coated helically wound brass body construction. The twistable section is covered in a neoprene jacket which allows the section to be pressurized as well as protecting the waveguide's integrity.

**Electrical Specifications**

Description	Min	Typ	Max	Units
Frequency Range	8.2		12.4	GHz
VSWR		1.1:1		
Insertion Loss		0.45		dB

**Mechanical Specifications**

Waveguide Size	WR-90
Waveguide Design	Twistable
Section Length	36 in [914.4 mm]
E-Plane Minimum Bend Radius, One Time	2.5 in [63.5 mm]
E-Plane Minimum Bend Radius, Repeated	10 in [254 mm]
H-Plane Minimum Bend Radius, One Time	5 in [127 mm]
H-Plane Minimum Bend Radius, Repeated	20 in [508 mm]
Maximum Offset Rotation, One Time	96 degrees/ft
Maximum Offset Rotation, Repeated	24 degrees/ft
Maximum Operating Pressure	45 psig

Description	Flange 1	Waveguide	Flange 2
Type	Square Cover	WR-90	Square Cover
Designation	UG-39/U		UG-39/U
Material	Brass	Brass	Brass
Plating		Silver	
Color	Gold	Black	Gold

**Compliance Certifications** (visit [www.FairviewMicrowave.com](http://www.FairviewMicrowave.com) for current document)

RoHS Compliant	Yes
REACH Compliant	12/17/2015

**Plotted and Other Data**

- Notes:  
 • Notes, Plotted Data



**Features:**

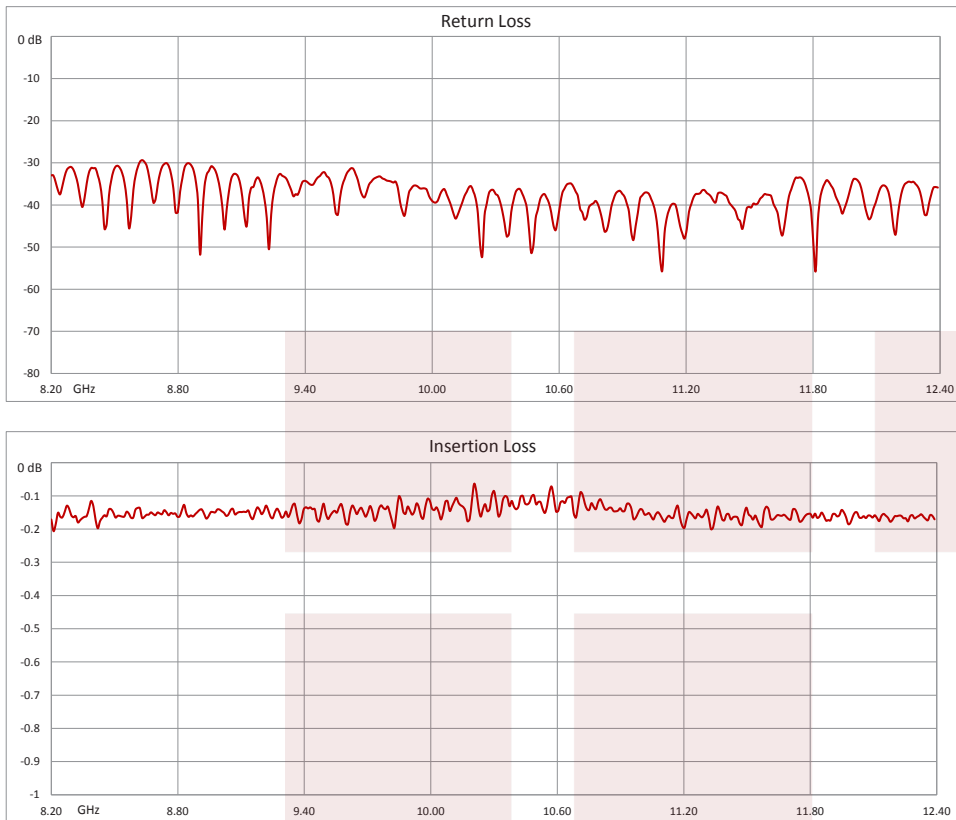
- Twistable/Flexible in both the E and H plane
- Neoprene Jacket allows pressurization
- 8.2 GHz to 12.4 GHz Range
- Brass flanges with a silver plated brass body

**Applications:**

- Test Benches
- Microwave Radio
- Pressurized waveguide systems
- Provides vibration isolation
- Easily connects misaligned sections.
- Relieves mechanical stresses caused by thermal expansion/contraction.

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**Typical Performance Data**

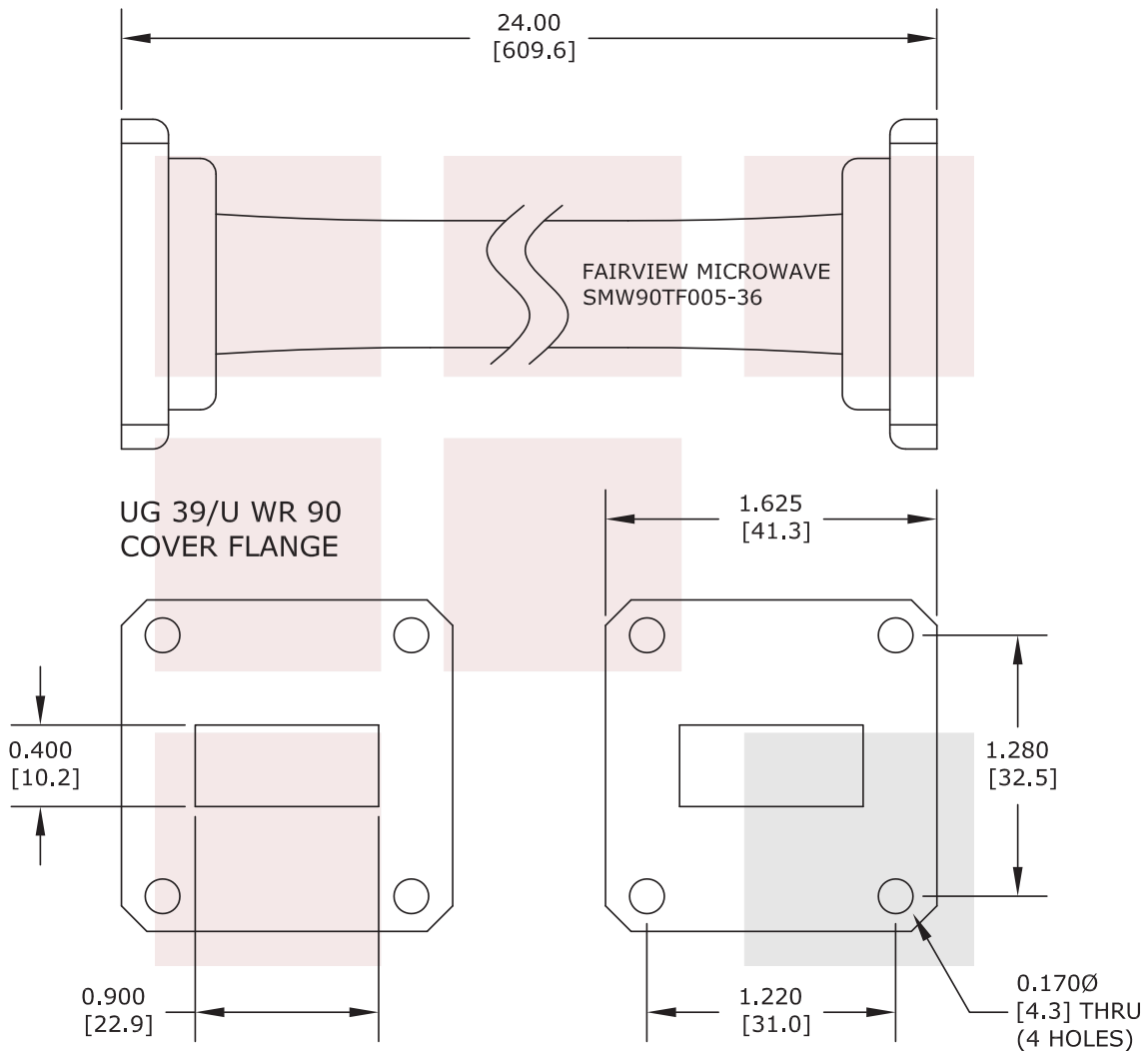


WR-90 Twistable Flexible Waveguide Using UG-39/U Square Cover Flange With a 8.2 GHz to 12.4 GHz Frequency Range from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-90 Twistable Flexible Waveguide Using UG-39/U Square Cover Flange With a 8.2 GHz to 12.4 GHz Frequency Range SMW90TF005-36](https://www.fairviewmicrowave.com/wr-90-twistable-flexible-waveguide-ug39-square-8.2-12.4-ghz-smw90tf005-36)

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TITLE WR-90 Twistable Flexible Waveguide Using UG-39/U Square Cover Flange With a 8.2 GHz to 12.4 GHz Frequency Range		DWG NO SMW90TF005-36		CAGE CODE 3FKR5	
CAD FILE	100515	SHEET	SCALE	N/A	SIZE A 2233