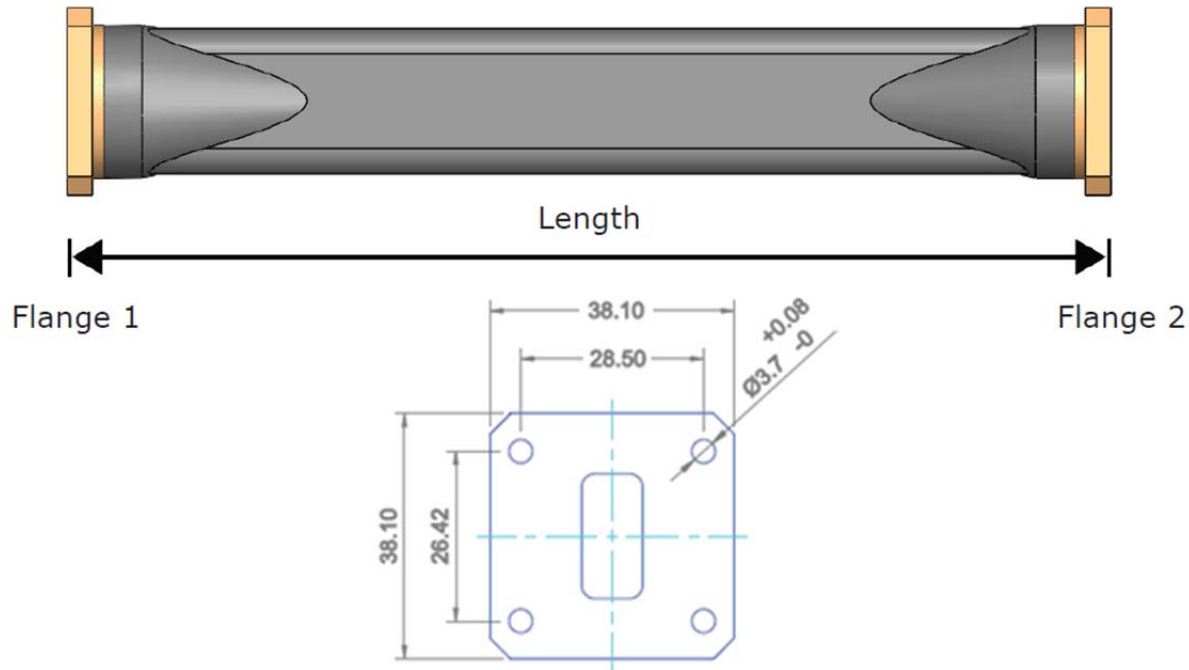


## Flexible-Twistable Waveguide, 10-15GHz WR75 package, 100-300 mm length

### The principle applications are:

- An aid to positioning parabolic reflectors in line of sight microwave radio links.
- The elimination of installation difficulties caused by misalignment or system variations.
- To isolate vibration.
- To permit the relative movement of equipment due to thermal expansion.
- To accommodate moving equipment in radar scanners.



There are two types of flexible waveguide:

**Flexible / twistable waveguide** core starts life as a spool of 0.1mm thick, silver plated, brass strip. The strip is then precision rolled into a three-dimensional profile before being helically wound around a rotating mandrel to form a continuous rectangular tube with uniform cross section and internal silver plating to minimize loss.

Flexible / twistable waveguide is not pressure tight without a jacket

**Flexible / non-twistable waveguide** which is manufactured in a similar way to flexible / twistable waveguide with the addition of a solder wire which is later melted to prevent the waveguide twisting. This also reduces any RF leakage. Seamless flexible waveguide is manufactured from a thin brass tube, which is mechanically manipulated into a corrugated form to produce a seamless flexible waveguide. The seamless construction generally allows for greater power and pressure handling although length is limited to 1 metre.

**Order Examples:** RFTWG-10-15-WR75-120mm-k23

**Description:** (Flexible Twistable Waveguide, 10-15GHz, WR75 Package, 120 millimeter length)

**Addition option** 100mm, 120mm, 150mm, 200mm, 300mm Length)

## Flexible-Twistable Waveguide, 10-15GHz WR75 package, 100-300 mm length

Specifications					Units
Waveguide Size:	WG17 / R120 / WR75				
Flange 1:	17B (UG MIL...53C-007)				
Flange 2:	17B (UG MIL...53C-007)				
Length: +/- 1.5% or +/- 2 mm	100 / 3.9	150 / 5.9	200 / 7.9	300 / 11.8	mm / inches
Flange Material / Finish:	Brass Flanges / No Plating				
Mechanical Specifications					
Jacket Material:	Silicone Rubber				
Core Material:	Silver Plated Brass				
Max. Recommended Operating Pressure:	15 psi / 1 kg/cm²				
Min E-Plane Bend Radius (Static):	54 / 2.1				mm / inches
Min H-Plane Bend Radius (Static):	108 / 4.3				mm / inches
Maximum Twist (Static):	365 Deg/m or 111.3 Deg/ft				
Min E-Plane Bend Radius (Repeated):	216 / 8.5				mm / inches
Min H-Plane Bend Radius (Repeated):	432 / 17.0				mm / inches
Maximum Twist (Repeated):	92 Deg/m or 28.0 Deg/ft				
Electrical Specifications					
Frequency Range:	10.0 - 15.0				GHz
Insertion Loss:	0.05	0.075	0.1	0.15	dB Max.
Return Loss:	29.4				dB Min.
Peak Power:	180				kW Max.
Average (CW) Power:	750				W Max.
Environmental Performance					
Temperature Range:	-70 to +150				°C
UV Resistance	Excellent				
Ozone Resistance:	Excellent				
I.P. Rating:	IP68				
Salt Mist:	BS EN 60068-2-52 (method Kb) - Extreme Marine Environments				