

Waveguide

FIP Dispensing Fabrication



EMI



Thermal

Traditional waveguide manufacturing

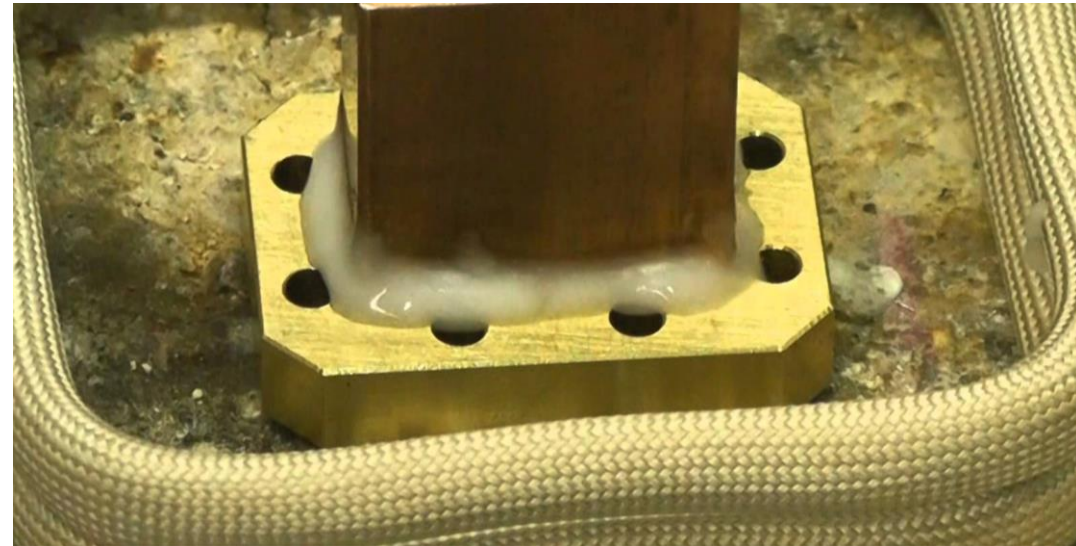
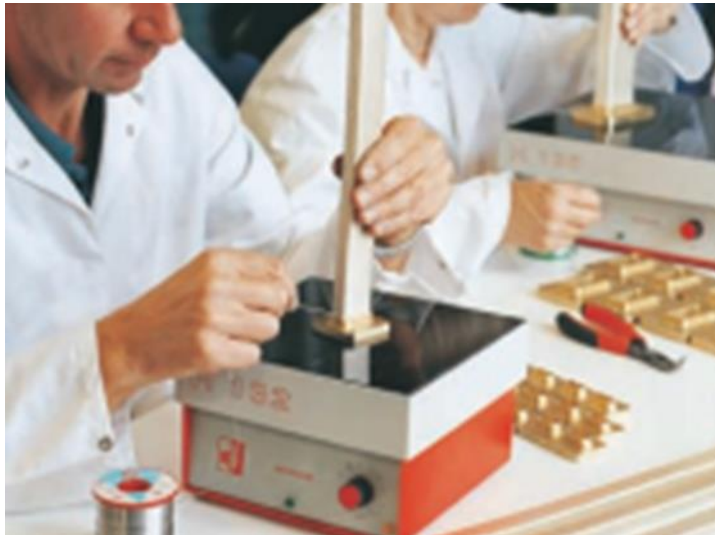
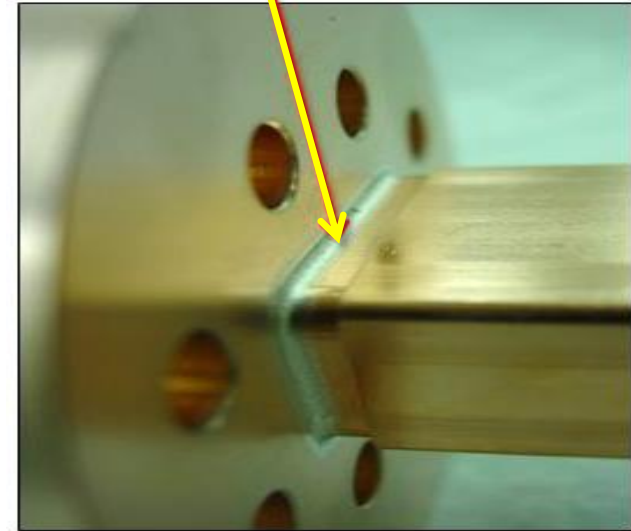
➤ Standard Process

- CNC
- Bending
- Soldering/Brazing

➤ Issues with current process

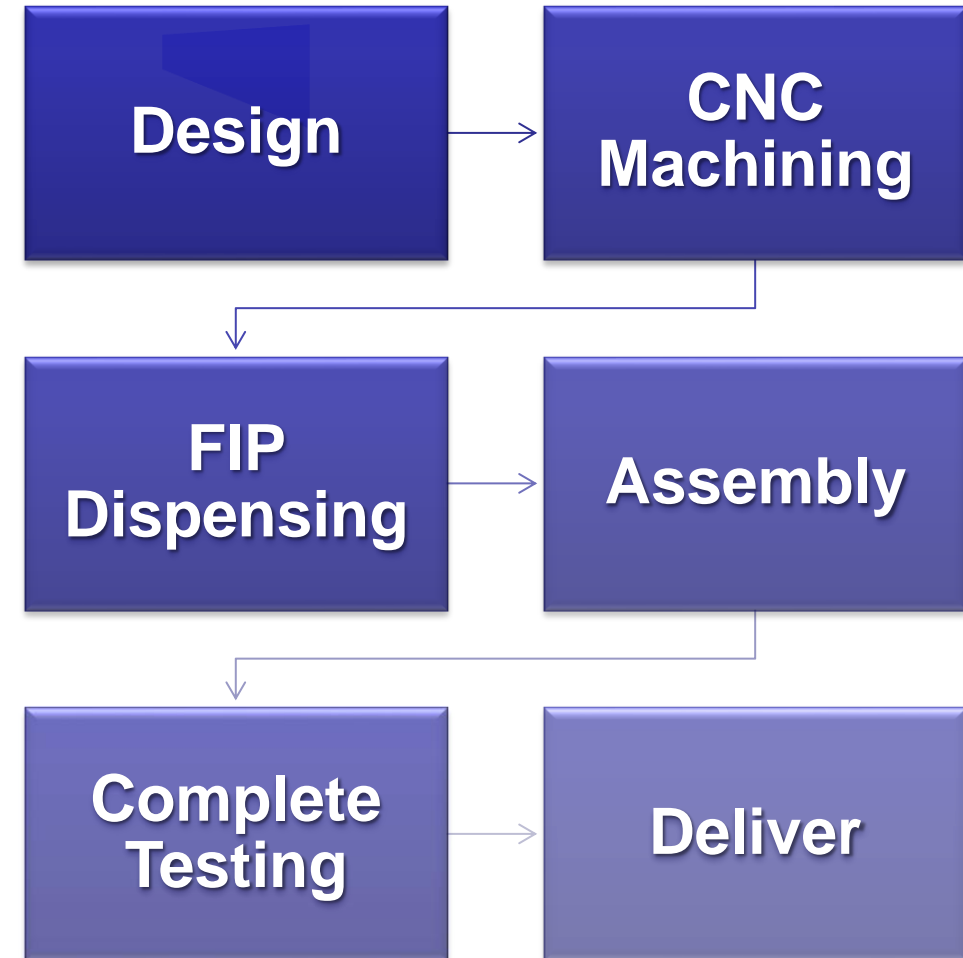
- Failed solder joint at interface between the waveguide and the flange may lead to frequency offset problems
- Impossible to rework which increases scrap and cost

solder joint



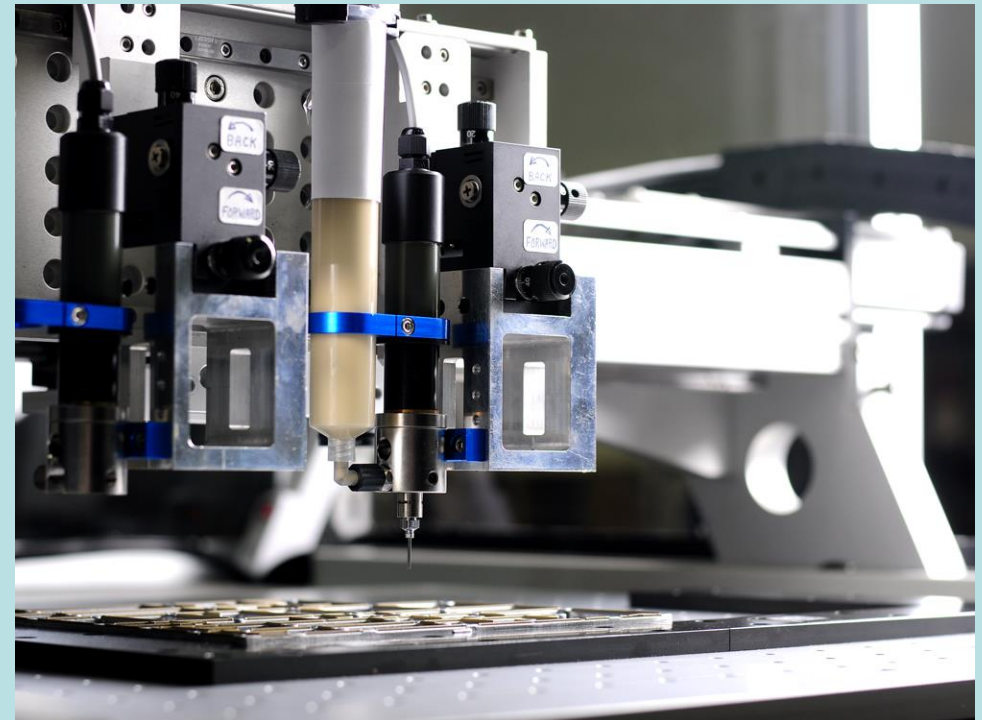
How can TennVac benefit our customers?

- **Simple Design**
 - Less complex manufacturing
 - Ease of manufacturing and assembly
- **Reworkable**
 - Disassemble and reassemble
 - Repair instead of scrap
- ***Failed waveguides are detachable and reworkable, which means the potential cost of scraps can be eliminated.***

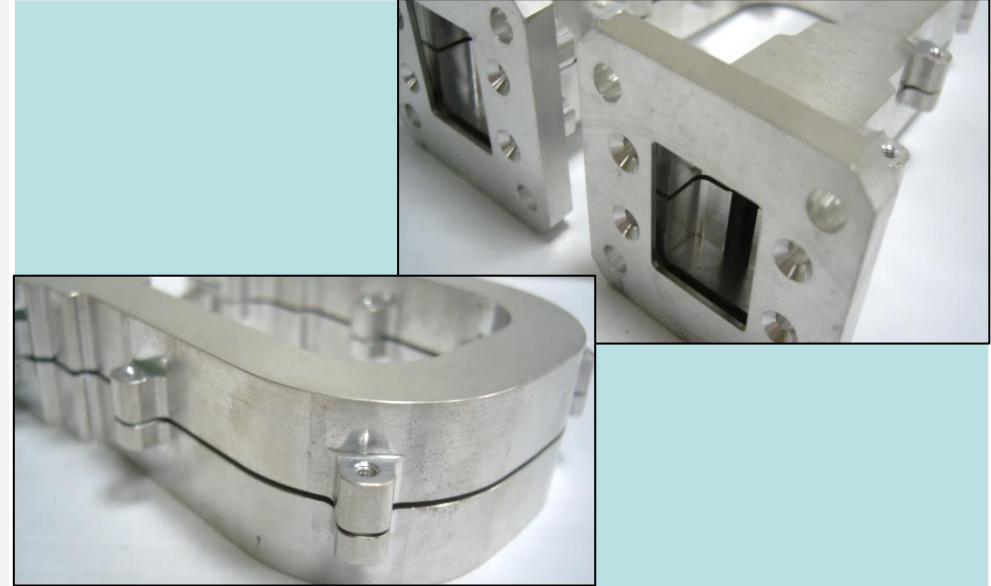


- **Wide Range of Frequencies:** FIP gaskets meet the range from L band to Ka band and higher
- **Process Optimization:** Gaskets can be applied by fully automated robotic dispensing to both horizontal and vertical flange for repeatability and consistent performance
- **Stable:** Eliminates potential metal flakes that can impact performance
- **Predictable :** Gasket absorbs tolerance issues and provides a more predictable and stable performance

$f(\text{GHz})$	Letter Band Designation
1–2	L band
2–4	S band
4–8	C band
8–12.4	X band
12.4–18	Ku band
18–26.5	K band
26.5–40	Ka band



- Quick-turn Prototypes
- Turnkey assembly
- Environmental and RF Testing
- Commercial and Military Applications
- Small form factor

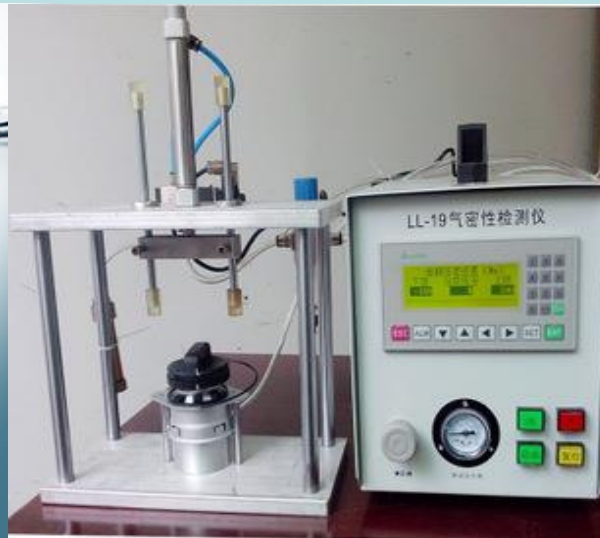


TennVac's test lab:

- integrates IP67 – IP68 waterproof tests for reliability test.
- introduces airtight test for quick leakage test to meet the military performance and applications.



waterproof test



leakage test

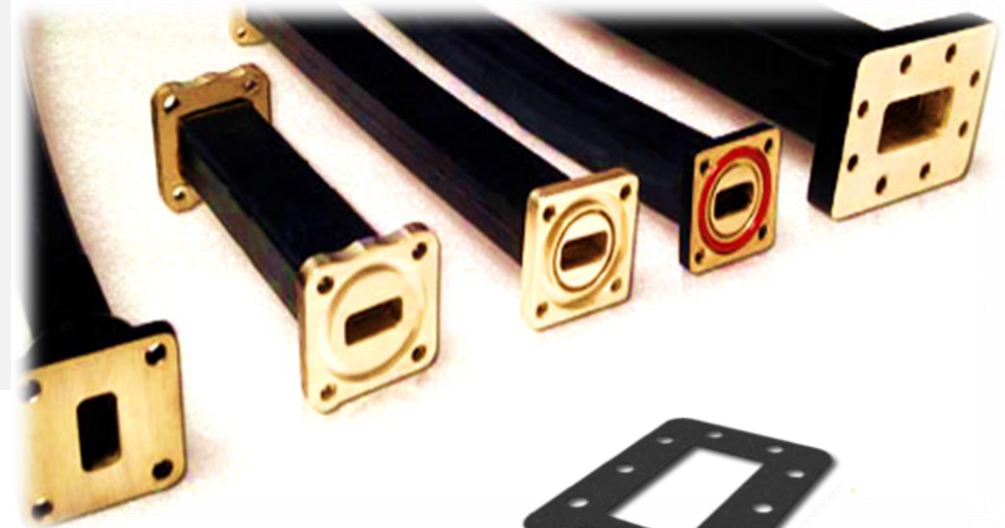


Other Gasket Options

TennVac Inc. provides an extensive range of **Conductive Gaskets** to fit CPR, UG, and CMR flanges, and we can also produce any other form of gasket to fit any other flange design via molded or die cut.

Features

- High EMI shielding effectiveness
- High tensile strength and tear strength.
- Provides good electrical stability without bleeding or migration
- Greater than 100 dB shielding effectiveness from 200 MHz to 24 GHz with a small gasket bead



- TennVac's test lab can do passive and active RF test systems (vector analyzer, spectrum, signal generator, and EM chamber) for sub-circuit and full system integration test in accordance CE EMI/FCC EMI/CTIA OTA test.



RF Test

