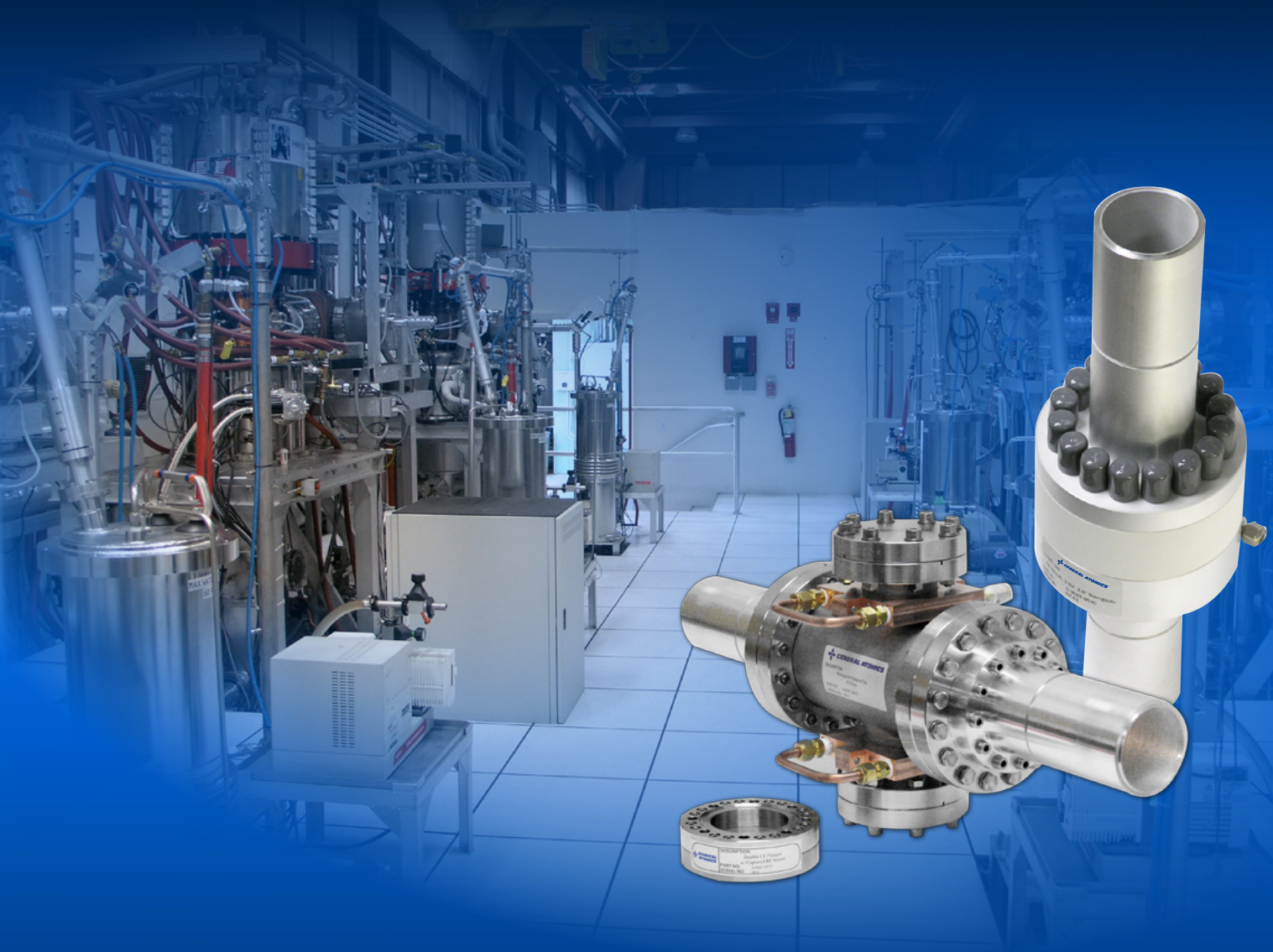
HIGH POWER CORRUGATED WAVEGUIDE COMPONENTS

DC breaks, pumpouts, tapers and windows



In addition to straight waveguides, couplings, 90° evacuated miter bends, switches, bellows and dummy loads, General Atomics (GA) manufactures:

- **DC breaks**
- **Gap-type and high performance pumpouts**
- **CVD diamond windows**
- **Numerous other high- and low-power transmission components**

Precision-machined for accurate alignment and low-loss transmission

GENERAL ATOMICS

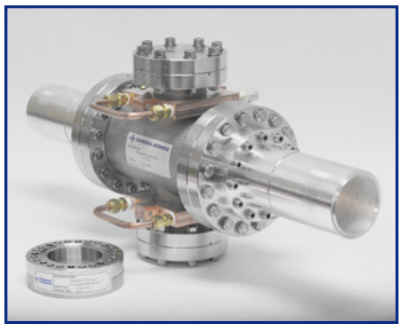
DC BREAKS, PUMPOUTS, TAPERS AND WINDOWS

GA has the scientific, engineering and fabrication expertise to design and deliver a wide range of standard and specialized high and low power mm-wave transmission line components.

DC BREAKS, PUMPOUTS, TAPERS AND WINDOWS:

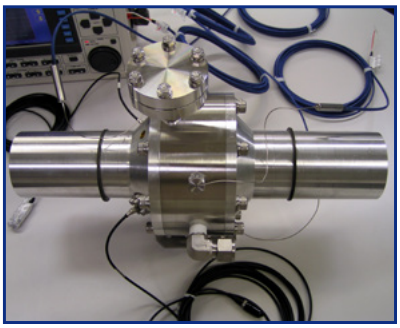
- DC break shown here is designed for 5 kV standoff voltage in 2.5” (63.5 mm), 170 GHz waveguide for < 2 MW cw operation
- Gap-type pumpout shown here is 2.5” version suitable for < 2 MW cw operation; high performance type is also available
- CVD diamond window assembly shown here is a 1.25” (31.75 mm) version which uses Helicoflex® vacuum seals; 2.5” and brazed window designs are also available
- Waveguide taper shown here tapers from 2.5” to 1.25” at 94 GHz for HE_{11} transmission

2.5” DC break



2.5” Gap-type pumpout

2.5” to 1.25” HE_{11} taper



1.25” CVD diamond window assembly

OTHER COMPONENTS MANUFACTURED:

- Non-90° miter bends
- Non-vacuum miter bends
- Continuous curvature bends
- Rotary joints
- Bi-directional couplers for TE_{01} inputs
- High power mode converters
- High power vacuum windows for short pulse operation
- Low power transmission components for diagnostic systems: beam combiners/splitters, low pass filters, notch filters, polarization rotators, steering antennas, transitions from fundamental waveguide, circular polarizers, polarization rotators and grid polarizers

Ray O’Neill, RF Engineering Manager
Ph: 858-455-5214 | E: oneill@fusion.gat.com
GENERAL ATOMICS 3550 General Atomics Court, San Diego, CA 92121, USA WWW.GA.COM

3403-0816