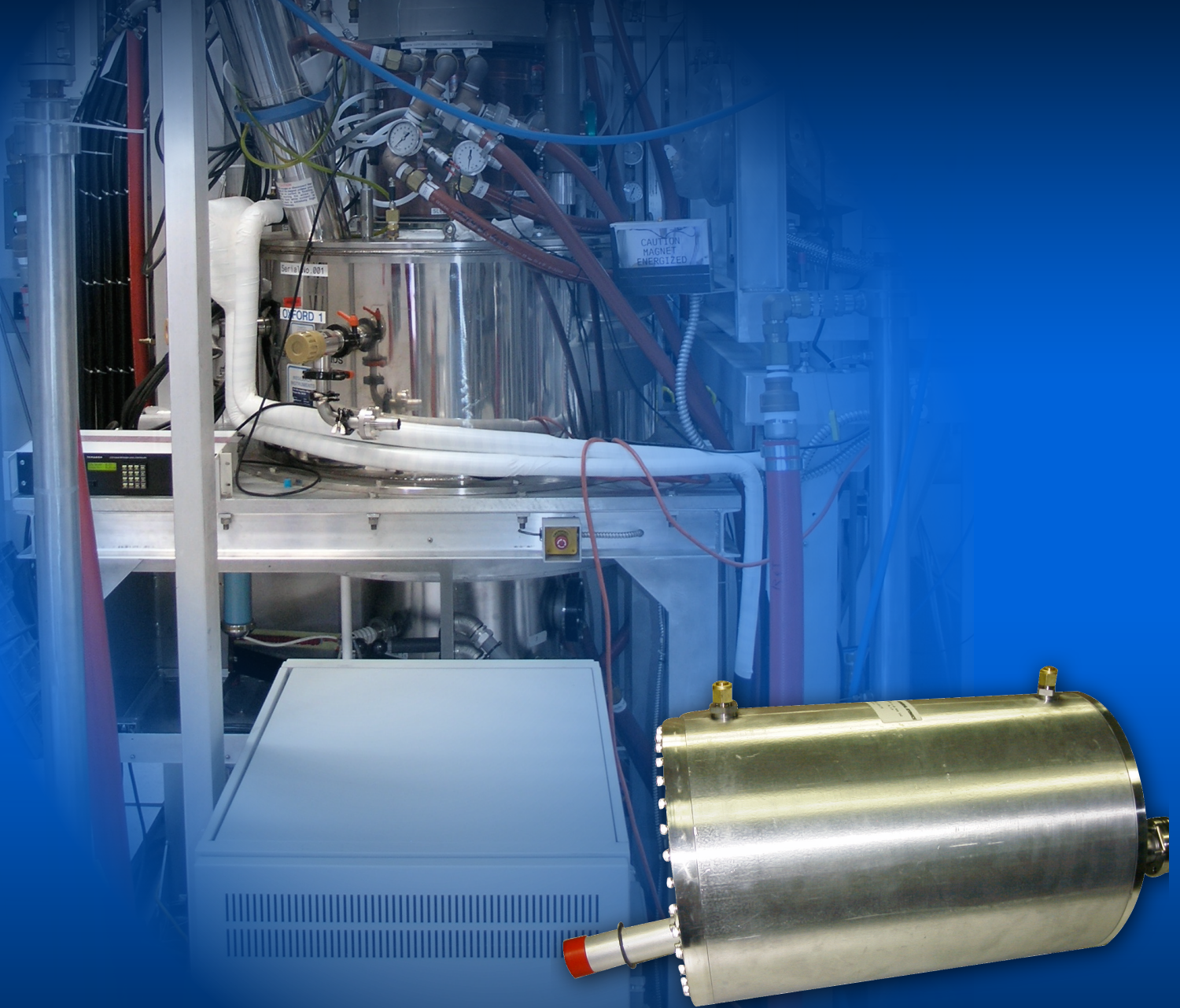


# HIGH POWER CORRUGATED WAVEGUIDE COMPONENTS

*High power dummy loads*



- General Atomics (GA) produces tank and compact waveguide loads for short pulse, long pulse and cw applications
- Dummy load systems suitable for up to 2 MW cw operation are available

*High power dummy loads for various frequencies, power levels and pulse lengths*

# HIGH POWER DUMMY LOADS

GA has the scientific, engineering and fabrication expertise to design and deliver standard and specialized dummy loads

## LARGE TANK LOADS:

- GA produces large evacuated tank loads suitable for up to 1 MW / 5 s operation over a broad frequency range
- Input waveguide is 1.25" (31.75 mm); tapers from 2.5" (63.5 mm) and 3.5" (88.9 mm) down to 1.25" are available



## SMALL TANK LOADS:

- For evacuated operation, suitable for:
  - 1 MW for 0.2 s
  - 0.5 MW for 0.5 s
  - 250 kW cw
- Design optimized for specific frequencies from 84 GHz to 170 GHz
- Reflected power < 1%



## COMPACT WAVEGUIDE LOAD SYSTEMS:

- A specially corrugated Glidcop® or chromium copper attenuating waveguide section surrounded by a water jacket absorbs approximately 75-85% of power input in  $HE_{11}$  mode
- The remaining 15-25% power is absorbed in a small tank load (as described above)
- For power inputs greater than 1 MW, a pre-attenuator waveguide section with water jacket can be provided to enable operation at up to 2 MW cw
- Standard designs are available for specific frequencies from 84 GHz to 170 GHz
- Time constant of these loads is less than 1 s



At left, absorbing waveguide sections and water jacket. At right, load installed for operation

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