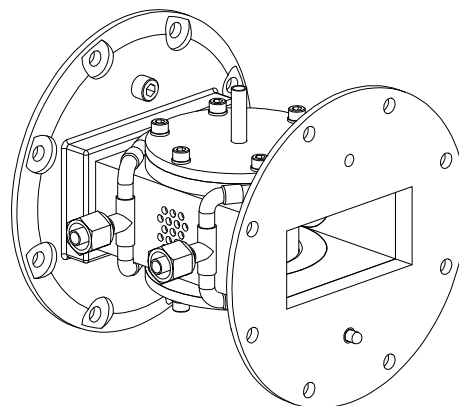


**Custom Waveguide Applicator, WR284
Water-Cooled, with Alumina Tube**

APPROVALS			REVISIONS			
	INITIALS	DATE	REV	DESCRIPTION	DATE	APPR
Drawn	JFG	06JUN08	1	Released	06JUN08	JFG
Engineering			2	Added -1 version	04SEP08	JFG
Manufacturing						
Marketing						

1.0 General Description

This document describes a water-cooled waveguide applicator designed for heating a material by 2.45 GHz microwave energy to high temperatures in a sealed atmosphere environment. An alumina tube is located inside the applicator along the waveguide center axis with o-rings providing a seal at each end. Copper tubes are located at the top and bottom for product feed and/or connection to customer-provided gas handling equipment. Perforations on the side of the applicator body allow viewing of the material being heated. A threaded boss for mounting a camera or IR sensor (supplied by customer) on the cavity wall is also provided. All copper and brass construction with water cooling tubes allows operation at high temperatures.

**2.0 General Specifications**

Frequency	2450 MHz +/- 30 MHz
Input Waveguide	WR284
Waveguide Flange	WR284 (UG584/U) with "Q-D" taper
Operating Temperature	-65 °F (-54 °C) to +608 °F (320 °C)
Product Feed Connections	Copper tubes (top and bottom)
Construction Materials	Waveguide: Copper Flanges: Brass Water tube: Copper Water fittings: Brass Chamber tube: 99.8% Alumina Seal O-rings: Perfluoroelastomer

3.0 Ordering Information

<u>Description</u>	<u>Product Tube</u>	<u>Part No.</u>
Custom Waveguide Applicator	.250 in. (6.35 mm) OD x .03 in. (.76 mm) Wall	912945
Custom Waveguide Applicator	.750 in. (19.05 mm) OD x .05 in. (1.27 mm) Wall	912945-1

Custom Waveguide Applicator, WR284 Water-Cooled, with Alumina Tube

4.0 Outline Drawing

