

# Test Tube Adapter for Universal Waveguide Applicator (UWA)

GERLING

## Model GA8303

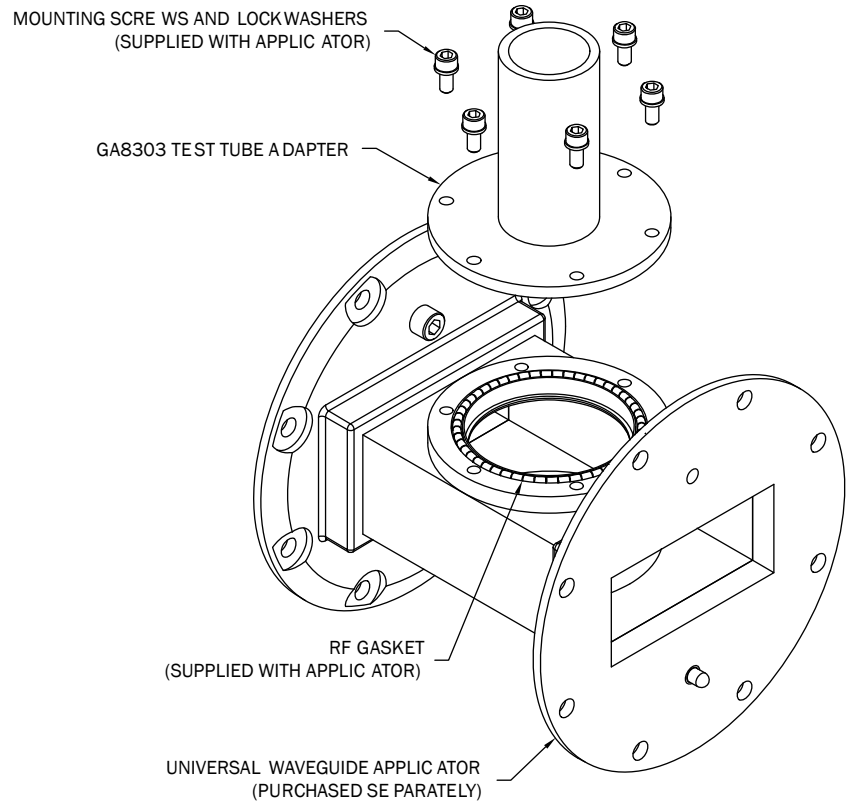
The model GA8303 Test Tube Adapter is designed for use with the Universal Waveguide Applicator (UWA) manufactured by GAE. It provides a convenience means to support a standard size test tube for purposes of heating a contained substance inside the applicator.

The basic concept of the GA8303 design is that of a "cut-off" tube. As microwave energy propagates from the waveguide into the empty cylindrical body of the adapter, the energy is attenuated at a sufficient rate such that energy exiting the end is below the maximum level allowed for safe human exposure. Inserting a standard (thin wall) test tube has minimal effect on the attenuation rate. However, the user is cautioned that test tubes filled with a dielectric material can increase or decrease the attenuation rate depending on the dielectric properties. **UNDER NO CIRCUMSTANCES SHOULD A METALLIC SUBSTANCE BE PLACED INSIDE THE ADAPTER BODY.**

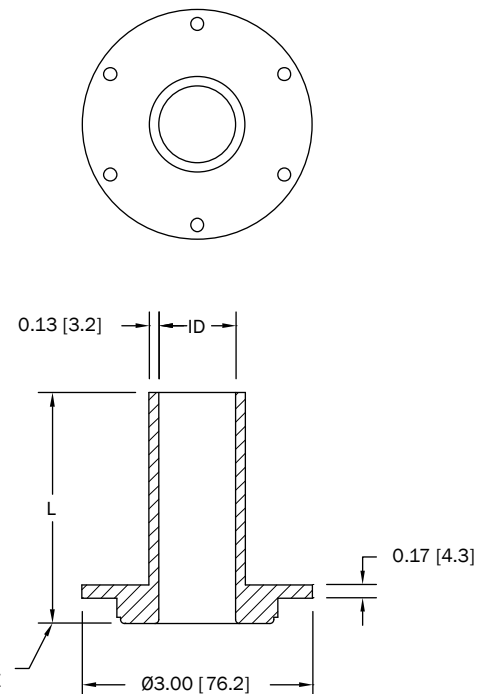
The GA8303 can also be used for other purposes. For example, continuously flowing fluids can be heated by passing a tube through two GA8303 adapters installed opposite each other on a dual sided UWA. Similarly, plasmas can be formed within a quartz or sapphire tube inserted through opposing GA8303 adapters. Contact GAE for more information about special uses of the GA8303 and other adapters available for use with the UWA.

### Specifications:

Frequency	2.45 GHz +/- 50 MHz
Waveguide Power	10 kW maximum
Construction Material	6061-T6 Aluminum
Finish	Clear chemical conversion coating (Alodine)
Compatible UWA Models	GA6001 thru GA6004



CONFIGURATION TABLE		
SIZE	ID	L
6 MM	.250 [6.4]	1.25 [32]
8 MM	.328 [8.3]	1.30 [33]
10 MM	.406 [10.3]	1.38 [35]
12 MM	.484 [12.3]	1.50 [38]
13 MM	.531 [13.5]	1.75 [44]
15 MM	.609 [15.5]	2.00 [51]
16 MM	.641 [16.3]	2.25 [57]
18 MM	.719 [18.3]	2.75 [70]
20 MM	.797 [20.3]	3.25 [83]
22 MM	.875 [22.3]	3.75 [95]
25 MM	1.00 [25.4]	4.25 [108]
36 MM	1.44 [36.5]	6.00 [152]
50 MM	2.00 [50.8]	12.00 [305]



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