

PATENT AWARD

U.S. Patent # 7368692B1 | Issued: May 6, 2008

Industrial Microwave Systems

A Microwave Techniques Company



Ridged Serpentine Waveguide Applicator

A serpentine waveguide applicator for exposing a material to microwave energy for heating, drying, or curing. A conveyor transports the material through aligned slots formed in facing sides at consecutive waveguide passes of the serpentine array. Each pass has a ridged waveguide structure with ridges in each corner of the otherwise rectangular waveguide. The ridges make the interior cross section of the waveguide passes cruciform and direct microwave energy away from the slots to reduce arcing, crosstalk, and leakage.