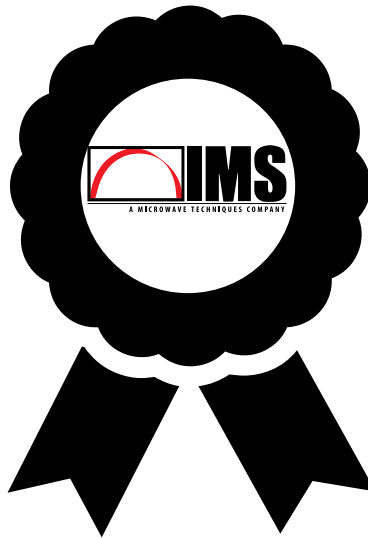


PATENT AWARD

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Industrial Microwave Systems

A Microwave Techniques Company



Microwave T-Junction Applicator

A T-junction microwave applicator and a method for making a T-junction microwave applicator with a microwave source supplying electromagnetic energy through a junction arm to a pair of collinear arms extending in opposite directions from their junction with the junction arm. The two collinear arms form a main waveguide terminated in end walls in which entrance and exit ports are formed for a conveyor to convey material to be heated through the main waveguide for exposure to electromagnetic energy. A rectangular conductive ridge in the wall of the main waveguide opposite the junction arm extends the length of the applicator. A cylindrical tuning bar spanning the junction is positioned vertically in a plane perpendicular to the axis of the main waveguide to maximize power transfer to the material to be heated.