FINE AIR STREAM SOLAR CELL SOLDERING ASSEMBLY PROVIDING UNIFORM OUTPUT AIR TEMPERATURE DISTRIBUTION

ABSTRACT

Embodiments of a solar cell soldering head assembly are disclosed herein, which includes a set of hot air generators coupled to a source of incoming air, and a heat distribution block coupled to the set of hot air generators. The heat distribution block includes an insertion surface having a set of insertion openings dimensioned to matingly receive the set of hot air generators, and an outlet surface having a set of hot air outlets, each hot air outlet having an area smaller than a cross sectional area of an insertion opening within the set of insertion openings. The heat distribution block further includes a set of channels exposed to the insertion openings and the set of hot air outlets. The heat distribution block includes a thermally conductive material, such as a material having a thermal conductivity of at least approximately 80 Watts per meter-Kelvin. In an embodiment, the heat distribution block can be a single machined piece of material.

FIG. 1A