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(54) Title: SUSPENSION PLASMA SPRAY

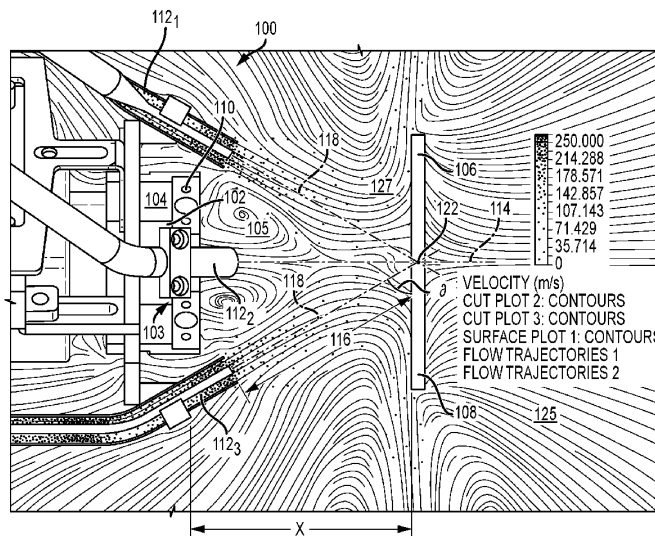


FIG. 1

(57) Abstract: A blast nozzle for a thermal spray assembly is provided. The blast nozzle may be a single nozzle or a plurality of blast nozzles arranged symmetrically around the thermal spray axis. The fluid axis from the blast nozzle (or nozzles) is angled with respect to the surface of the substrate to be coated. The angle may be between 0 and 90 degrees, and typically between 40 and 50 degrees, and more typically at about 45 degrees. The fluid from the blast nozzle (or nozzles) is propelled toward the substrate along with a fluid axis that converges with the plasma axis at a convergence point, which may be above the substrate (the near side of the substrate), at the substrate, or below the substrate (the far side of the substrate).

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