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Meunier

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[54] **MULTI-PITOT TUBE ASSEMBLY**

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[57] **ABSTRACT**

A multi-pitot tube assembly for use in flow measurements of a fluid surrounding a test structure. The assembly has multiple, identically shaped pre-formed pitot tubes sealed within a molded polyurethane fin shape. The pitot tubes are nested together and passed through an alignment disk into separate spread holes in a common sealing plug. The surface of the plug is shaped to conform to the surface of the test structure. The pitot tubes, alignment disk and plug are inserted into a mold and polyurethane is injected to seal the individual tubes and form the fin shape from which the pitot tubes extend. The mold is removed and the assembly is attached to the test structure with the fin extending into the medium and the sealing plug flush with the outer surface of the test structure. A watertight, O-ring seal is provided between the plug and the test structure.

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[52] U.S. Cl. **73/861.66; 73/861.65; 264/275; 264/271.1**

[58] Field of Search **73/861.65, 861.66; 277/1, 11; 264/275, 277, 271.1**

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17 Claims, 3 Drawing Sheets

