

HIGH AXIAL FLOW GLASS COATED IMPELLER

Abstract of the Disclosure

A glass coated high axial flow impeller, including a hub and attached blades. The hub has a centrally located hole, where the hole has a central axis. The impeller has a plurality of angles and edges, all of which have a rounded configuration to permit glassing. The impeller further includes at least two variable pitch blades. Each blade has front and rear surfaces both defined by an inside edge having a leading end and a trailing end, an outside edge having a leading end and a trailing end, a leading edge connecting the leading end of the inside edge to the leading end of the outside edge and a trailing edge that connects the trailing end of the inside edge to the trailing end of the outside edge. The outside edge of each blade is from about 1.5 to 2.5 times the length of the inside edge. The blades are symmetrically attached to the hub at their inside edges; so that, their inside edges are at an angle of from about 45 to about 60 degrees from the central axis of the attached hub and their outside edges are at an angle of from about 50 to about 70 degrees from the central axis of said hub. The angle of the inside edges to the central axis of said hub is from about 6 to about 12 degrees less than the angle of the outside edges to the central axis. The hub and its attached blades are covered by a contiguous coating of glass.

Figure 1