

HIGH GAS DISPERSION EFFICIENCY GLASS COATED IMPELLER

Abstract of the Disclosure

A glass coated gas dispersing impeller. The impeller comprises a hub, having a centrally located hole. The hole has a central axis and is sized for passage over a drive shaft having an essentially vertically extending longitudinal axis so that the central axis of the centrally located hole corresponds with the longitudinal axis of the shaft. The impeller has a plurality of angles and edges, all of which have a rounded configuration. The impeller further comprising a plurality of blades secured to the hub that extend radially outward from the central axis. Each of the blades has a leading concave surface and a trailing convex surface both of which are defined by a lower edge, an upper edge, an inner edge and an outer edge. The concave surface is configured so that the upper edge overhangs the lower edge. The blades may be connected to the hub directly or by intermediate connecting means such as a disk or arm integral with the hub and extending radially outwardly from the central axis. The hub and its attached blades are covered by a contiguous coating of glass. The impeller has superior ability to disperse gas at high gas velocities without flooding when compared with known glass coated turbines.

Figure 1