

An alternator, such as for use in an electrostatic spray gun, comprises an electromagnetic alternator, a housing and an impeller. The electromagnetic alternator has a shaft. The electromagnetic alternator is disposed within the housing. The housing has an air aperture. The impeller is mounted to the shaft within the housing so as to be aligned with the air aperture. The impeller includes blades having curved leading and trailing edges. In one embodiment, each blade has a curvature so as to be perpendicular to the air aperture across an entire arc over which each impeller blade has a line of sight of the air aperture.