

COUNTER SWIRL ANNULAR COMBUSTOR

Abstract Of The Invention

An annular combustor suitable for use in a gas turbine engine having a plurality of fuel injectors and a plurality of apertures circumferentially arranged within the inner and outer liners of the combustion chamber is disclosed. Further, each of the apertures of the inner liner are disposed on one side of the centerline of each of the fuel injectors and each of the apertures of the outer liner are disposed on the opposing side of the centerline of each of the fuel injectors. In this way, air exhausted from the apertures advantageously opposes the direction of swirl of the fuel and air mixture that is injected from the fuel injectors thereby providing enhanced mixing of the fuel and air within the combustion chamber, increased residence time and the reduction of hot streaks in the inner and outer liners.



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