

Title (en)  
STARVED-AIR COMBUSTOR

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Application  
**EP 81103467 A 19810507**

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Abstract (en)  
[origin: EP0039909A2] The present invention relates to a starved-air combustor of the type capable of consuming non-conventional fuels such as the byproducts of wood, pulp, and paper mills, and household and commercial refuse. Prior art starved-air combustors have not been entirely satisfactory in entirely consuming the combustible elements of the fuel at high throughput without producing air pollution. While the pollution problem can be solved to a degree by the utilization of scrubbers and other antipollution devices, such mechanisms are very expensive and their cost may militate against the use of alternative energy sources. The disclosed starved-air combustor includes a combustion chamber which is divided into a plurality of combustion chamber zones with separate overfire and underfire airflows being individually provided for each zone. Fuel is fed to the combustor in selectable constant weight batches and the supply of underfire air is proportional to the rate at which an auger rotates to convey the fuel through the combustor. Overfire air is supplied to each combustion zone in an inverse relationship to the variance of a sensed temperature within the zone from a predetermined temperature.

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