



Fire Bed Combustor

The cement clinker process requires large amounts of energy. Therefore the daily challenge of many cement plants is to save resources and to reduce fuel costs by introducing alternative fuels. Burning alternative fuels, such as used oil, solvents and saw dust is now common practice. In contrast, burning used paper, packaging waste and plastics requires extensive pre-processing to obtain flyable particles of similar size.

- + Designed for a wide range of fuels
- + Separation of flyable and coarser fuels
- + Remaining energy increases tertiary air temperature
- + Available as retrofit to existing calciners
- + Wing design for optimized self cleaning
- + Main part of energy is released inside the calciner

IKN technology in brief

IKN's solution to reduce the amount of pre-processing is the Fire Bed Combustor (FBC). The FBC is a reactor which is flange-mounted to the calciner. It operates as a fuel separator and combustor for non- or limited flyable particles and does not require moveable parts or pneumatic to move the fuel particles. Inside the FBC, horizontal heat resistant wings are surrounded by hot tertiary air. The non-flyable particles remain on the wings inside the reactor until they are picked up by the tertiary air to be burned inside the calciner. In combination with an FBC, the calciner can handle additional portions of coarse, non-flyable particles.



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