

ROTARY KILN & CALCINER

DIRECT-FIRED KILNS

In a direct-fired rotary kiln, the heat is pushed through the interior of the kiln, meaning the heat transfer



comes from the direct contact between the heat source and the material. Due to the high heat being pushed through the kiln, this kind of rotary kiln is refractory lined, usually



with a brick or castable lining, which protects the steel shell from the high internal temperatures. This kind of rotary kiln is a robust and efficient unit for heat transfer and pyroprocessing.

INDIRECT-FIRED KILNS

An indirect rotary kiln, also commonly called a calciner, is a necessity when it comes to dealing with a material that cannot come into contact with combustion gases. An indirect kiln also offers superior temperature control along the length of the kiln.

In an indirect rotary kiln, the heat is introduced to the outside of the drum shell via gas burners, or electric heaters. In essence, the rotary kiln is rotating inside of a stationary housing. This avoids any direct contact between the heat source and the material. Because the heat is being transferred through the shell, an indirect rotary kiln is typically not lined in order to maximize the heat transference through the shell. Therefore, an indirect rotary kiln is usually made out of a temperature-resistant alloy, instead of carbon steel.



A benefit of the indirect rotary kiln is that because gas is not mixing directly with the material, much less gas is released from the shell, therefore requiring much less treatment of the expelled gases.

MATERIAL CALCINED

Alumina, aluminum hydroxide, bauxite, coal slime, pet-coke, lignite, coke powder, oil sand, gypsum, quartz sand, chrome ore, cement clinker, lime, dolomite, copper powder, iron powder, nickel powder, lead powder, Caolin, Clay, Mullite, Kaolin Clay

FEATURES

- Diameter: 0.8m up to 3.5m
- Length: 6m up to 70m
- Capacity: 0.5Tph up to 50Tph



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