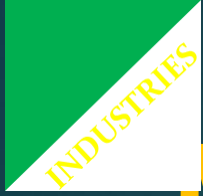


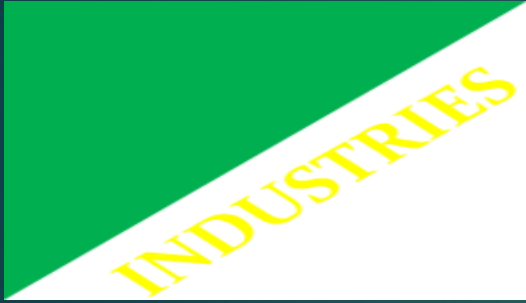
AMCO / MM Engineering



# CEMENT MILL FANS

**MM ENGINEERING/ AMCO INDUSTRIES**





# ALL Type Cement Mill Fan By MME AMCO Industries

## ▶ The 6 Main Process Fans in Cement factory

Cement industry is one of the major markets for industrial fans. Fans in cement industry are heavy duty and perform two basic functions i.e., supply of air or removal of exhaust gases and material handling. There are many process fans that find applications in cement industry such as raw mill fans, induced draft fans, cooling fans, raw mill exhaust fans, coal mill fans and cooler exhaust fans.

### ▶ **Raw mill fans:**

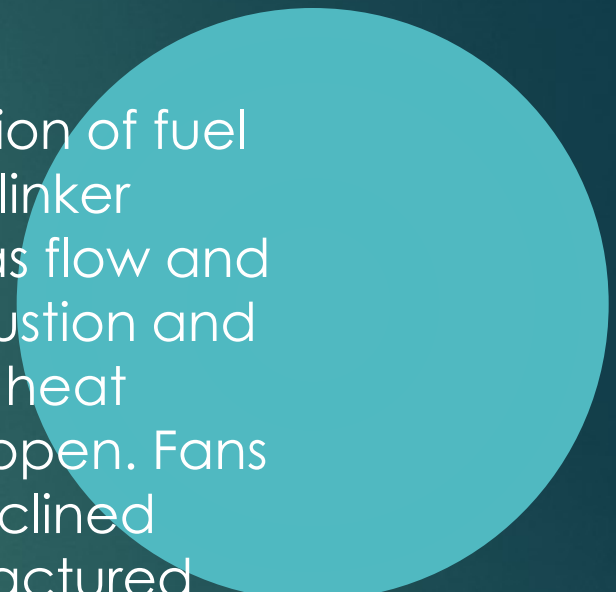
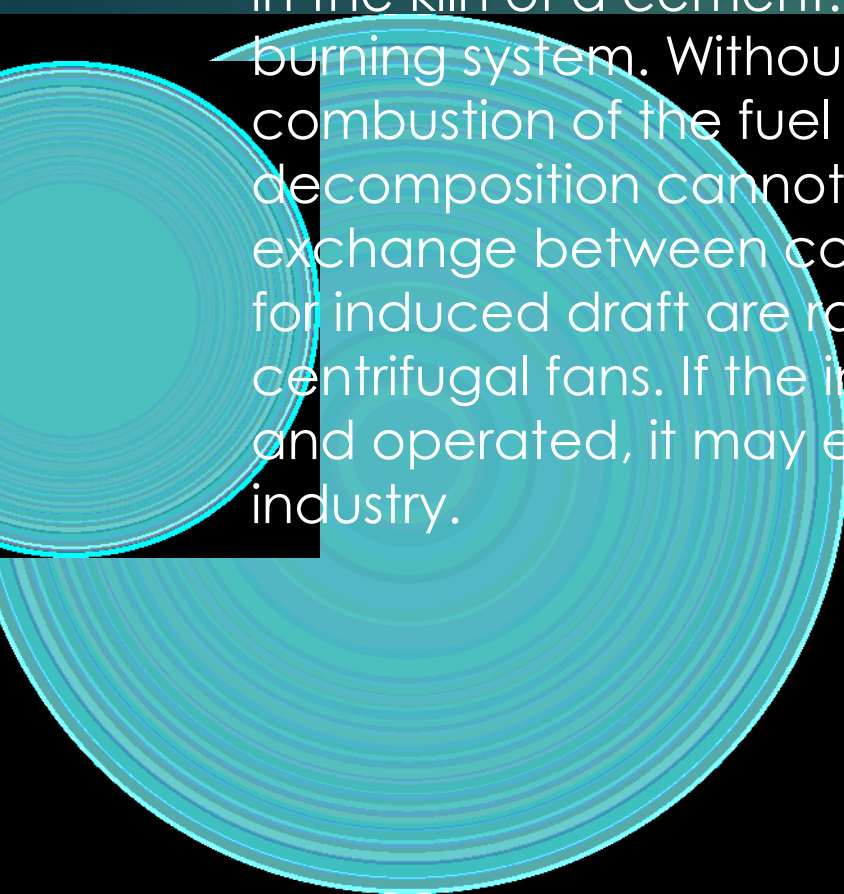
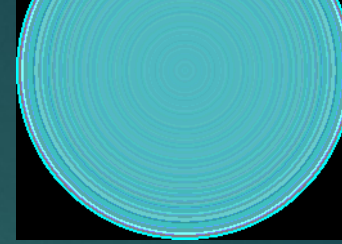
▶ Raw mill fan in cement industry carries gas and raw meal. The pressure drop in raw mill fan is very high. If a vertical roller mill is used for raw grinding in cement industry then a large raw mill fan is installed. Usually cement industries use centrifugal fans to carry out this process.

# Air Slide Fan



# Induced draft fans

Induced draft fans supply the necessary air for the combustion of fuel in the kiln of a cement. It is considered as the 'lung' of the clinker burning system. Without the aid of induced draft fan, the gas flow and combustion of the fuel are not possible, the gas from combustion and decomposition cannot be taken out of the system, and the heat exchange between cold raw meal and hot gas cannot happen. Fans for induced draft are radial, forward curved or backward inclined centrifugal fans. If the induced fans are not properly manufactured and operated, it may effect the power consumption of the cement industry.



# Cooling fans

- ▶ Cement industry uses large number of cooling fans usually between 5 to 15 in one clinker line based on the kiln capacity. Cooling fans are used to blow cold air to the cooler and to cool the clinker from 1500°C to 100°C. Cooling kiln protects equipment and facilitates quenching the clinker to ensure the important forms of minerals like C3S, C2S, C3A, C4AF stay in it, so that proper clinker quality is maintained. Improper design of cooling fans can lead to poor clinker quality, high power consumption and even damage of the conveying system.

## **Raw mill exhaust fans:**

Raw mill exhaust fans or stack fans are also called as de-dusting fans. In cement industry raw mill exhaust fans handle 2.2 ton of exhaust gases for the production of 1 ton of clinker. Raw mill exhaust fans are operated with very adverse situations because the fan handles mainly gases such as CO<sub>2</sub>, N<sub>2</sub>, NO<sub>x</sub> and Sox along with some dust particles.

# Coal Mill Fans

In cement industry coal mill fans are used to supply required air for burning coal and remove the exhaust gases produced after burning. These fans help in effective burning of coal inside the mill. For a large clinker line there are usually 2 or 3 cement mills.

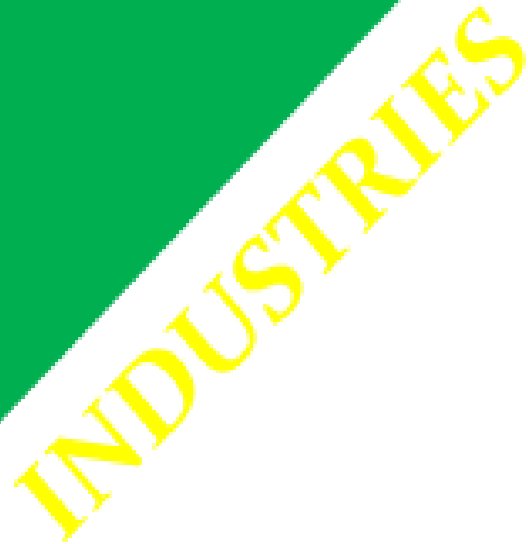
## Cooler exhaust fans:

Cooler exhaust fans move 1.8 ton of exhaust air per 1 ton of clinker production. This process is a part of air blown into the cooler by cooling fans that are not useful for fuel combustion.

In addition to these key process fans, cement industry also has many non-process fans. These fans work all together with bag filters, for the de-dusting of various conveying systems.

**if you need any information about fans or need to buy spare parts or new fan or fan modification , kindly email us with your requirements and we will help you [info@mmengr.com](mailto:info@mmengr.com)**

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