

Stationary inlet for ball mills

Make it easy to allow the material feed and ventilation air separately in the ball mill feed and ensure an increased air flow through the mills for better ventilation– with our stationary inlet for ball mills.

The prime purpose of our stationary inlet is to direct the feed materials (clinker & gypsum (or raw meal) and, in some instances, additives and material recirculated from the separator) and ventilation air into the mill. The damper in the air intake is adjusted manually during the running-in of the mill to ensure proper ratio of mill feed and air is passed in to the mill. The feed chute is lined with bolted-on wear plates slopes down through the air duct to the mill inlet opening. The inlet can easily be prepared for internal water injection in inlet end if needed. We also offer inlet prepared for drying gases from hot gas generator (HAG) in that case inlet will be without damper and air flow to be adjusted by the damper at the hot gas generator inlet.

For raw mills we also offer an insulated (castable) inlet to transport the hot gases in to the mill.

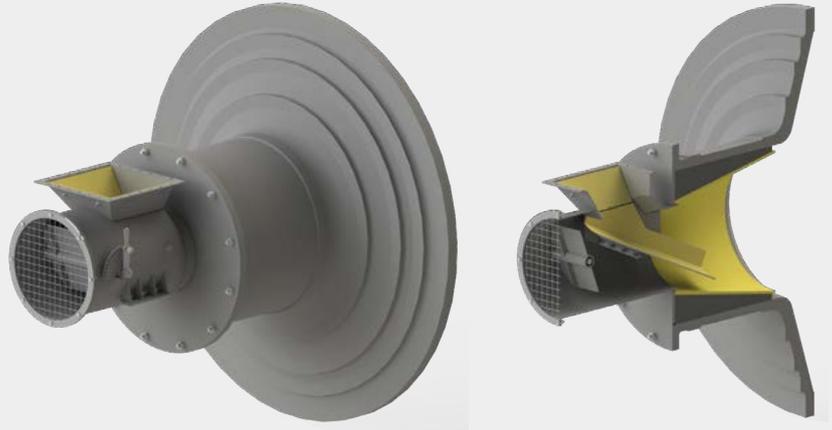
Key benefits

- Increases air flow through the mill
- Reduces power consumption
- Reduces maintenance costs
- Compatible with water injection systems

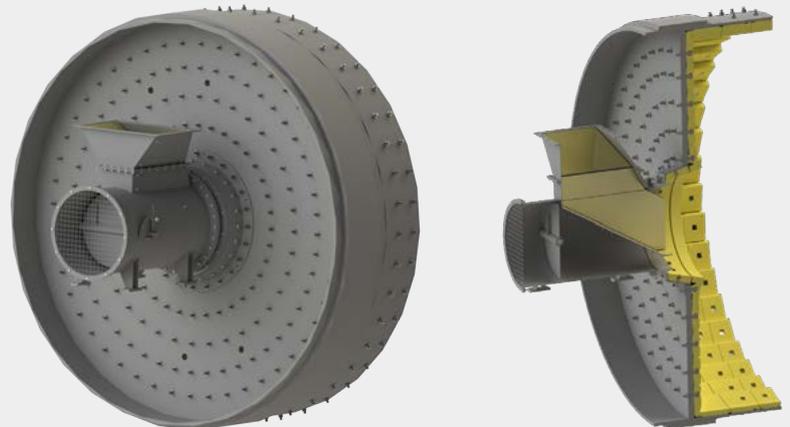
Stationary inlet applications

- The stationary inlet can be offered for cement mills with trunnion or slide ring support and slide ring supported raw mills.
- The inlet is supplied as pre-assembled unit.
- The mill inlet and trunnion liner are suitable for dual direction of the mill rotation.
- The Inlet is equipped with a manually regulated damper to adjust the air flow through the mill and has easy replaceable wear plates.
- The feed chute is lined with bolted-on wear plates slopes down through the air duct to the mill inlet opening.
- When there is no hot gas application the inlet is closed with steel wire mesh.
- For trunnion mill application the supply also includes conical trunnion inlet liner matching the stationary inlet
- The steel support for the inlet is a simple stool arrangement and it can be fabricated at site and mounted according to local regulations.
- The feed chute is having square flange opening at the top with minimum height so that it is easy for modifying the existing chute and transition.
- The material chute is extended far in to the trunnion so that all the feed material are falling in the trunnion liner and avoids spillage from the mill inlet.
- For slide ring supported raw mill the material inlet has a higher chute slope to ensure the free flow of material and the hot gas pre-heats the inlet chute there by ensuring the material does not stick to the chute liners.

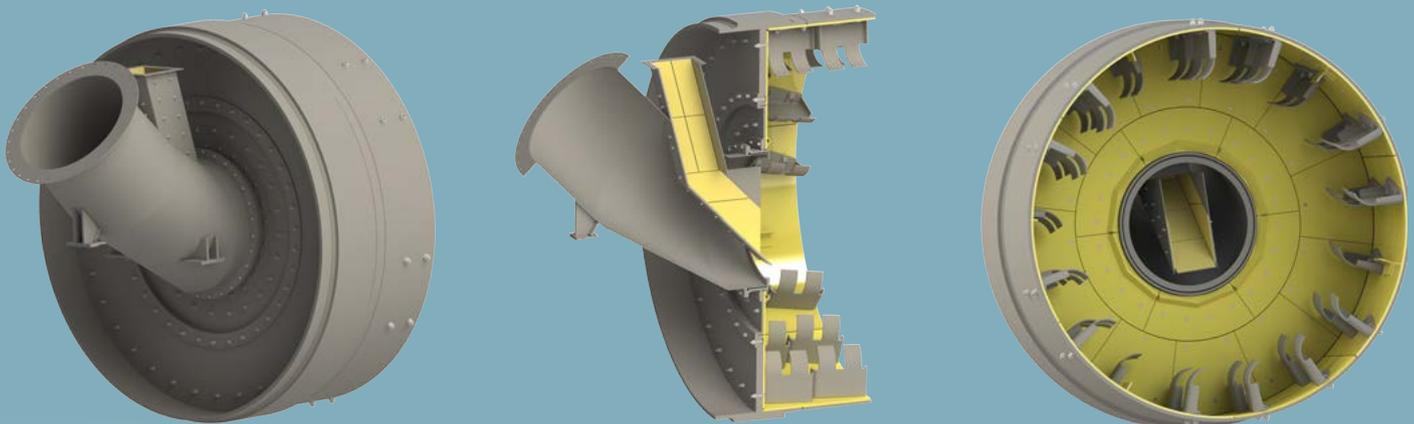
Trunnion supported Cement mills



Slide ring supported - Cement mills



Slide ring supported - Raw mills



Reduce power consumption and maintenance costs

The correct ratio of mill charge to air flow is vital to securing high output, low operating costs, and minimal wear on mill internals. Which is where the stationary inlet comes in.

Increasing air flow without losing pressure

With its large free area, the stationary inlet is designed to ensure sufficient ventilation at low pressure drop – and so secure high operating stability in the ball mill. What does this mean in practice? Lower operating costs, as both power consumption and maintenance requirements are reduced when compared to the mills with older mill inlet designs.

Meanwhile, the hand-operated built-in damper allows adjustment of the pressure at the mill inlet to help avoid dust emissions.

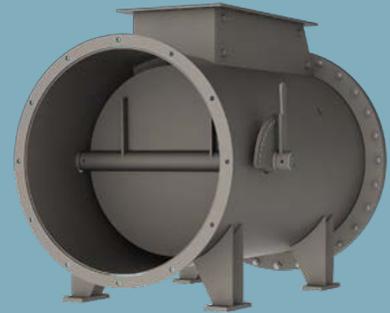
The inlet can be used to replace the traditional scoop feeder designs on both FLSmidth and third-party mills. With cast scoop feeders expensive to replace, this stationary inlet drastically lowers maintenance costs. As do the wear-resistant composite plates on all surfaces of the material chute that are used for material transport.

A flexible solution

In addition to standard applications, the stationary mill inlet is easily modified to allow water injection into the first compartment. When drying of moist feed is needed, a modified version of the inlet can also be installed to lead hot gases into the ball mill. Gases of up to 350°C can be handled for UMS mills and up to 250°C for trunnion-supported ball mills.

Finally, to ensure you get the best from your stationary inlet, we offer supervision of installation and training to operators on correct operation.

Fully closed
minimal
air intake



Middle position
medium
air intake



Fully open
maximum
air intake



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