

Three ways to more economical grinding

Cai Eric Friis
(F. L. Smidth & Co.)

The cement making process is very energy-consuming, both in terms of fuels and electrical power. Power consumption averages approx. 100 kwh/t cement produced, about 60% of that being used in the grinding process.

Due to the increased energy cost over recent years and to higher emphasis on product quality and uniformity much effort has been concentrated on developing high efficiency grinding installations.

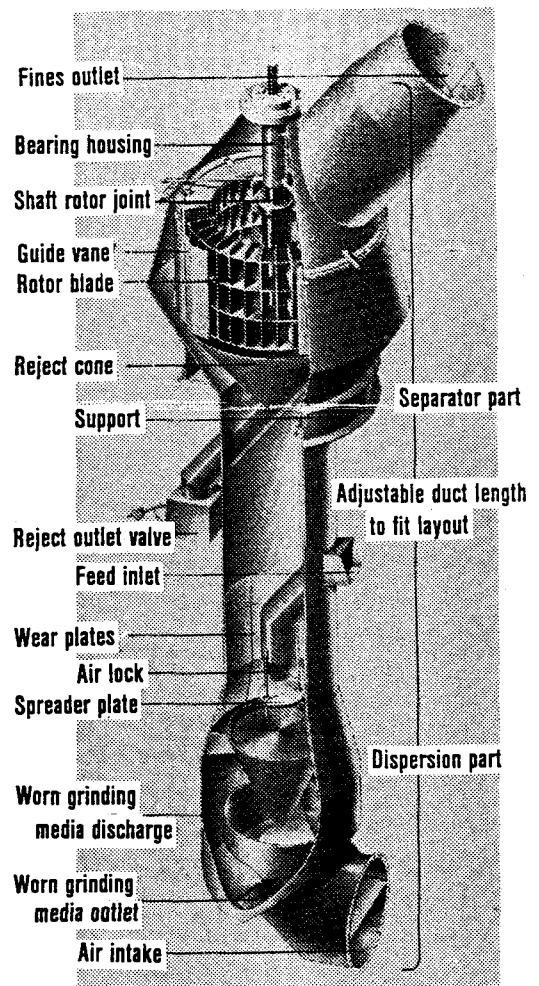
For this purpose F. L. Smidth & Co. A/S has developed the high efficiency *Sepax separator*. Numbers of these are now in operation. Operating data will be presented from these installations fully confirming the great expectation of up to 50% increase in output.

Precrushing of mill feed in high pressure *Roller Presses* improves the grindability vastly. F. L. Smidth & Co. A/S has established a cooperation for supply of high pressure roller press with the German company Koeppern.

For clinker a reduction of specific energy consumption in the following mill installation of 30% is quite normal, corresponding to a reduction of 20% for the total grinding installation. By installing a roller press in front of a ball mill an increase of output of 40% has been found in average.

It has been recognized that better grinding economy can be obtained by the use of small grinding media in the fine grinding compartment. F. L. Smidth & Co. A/S developed the *Combidan*

Diaphragm enabling the use of smaller grinding media. This new type of diaphragm also ensure long life time more than 30,000 hours.



<編輯者註：紙面關係로 本文을 신지못한 점을 諒解 하시기 바랍니다.> ♣