



New cement grinding plant

for the Koromacno works, **HOLCIM** (Hrvatska) d.o.o., Croatia

Location of the new grinding plant

A few days before Christmas, Messrs. Holcim (Hrvatska) in Croatia, a subsidiary of Holcim, Switzerland, placed an order with KHD Humboldt Wedag AG for supply and construction of a new cement grinding plant in their Koromacno works. Koromacno is located in Istria, directly at the coast of the Adriatic Sea near the ancient Roman fortifications of Labin. In 1974, the new line in Koromacno cement works was built by a Romanian company under the licence of KHD Humboldt Wedag AG. The plant, a production line with a today's capacity of 1700 t/d of clinker, was modernised in various steps within the last years.

The related increase of the clinker production and the growing cement sales lead to the decision of the customer to also increase the capacity of the cement grinding plant.

With the construction of the new grinding plant, the following objectives were aimed at beyond the increase of the grinding capacity:

- reduction of the electrical energy requirement by approx. 25%,
- increased reliability,
- high cement qualities,
- further cement types with finenesses of 3500 to 5000 cm²/g.

The existing closed-circuit grinding plant essentially comprises a ball mill with the dimensions 3.8m x 12.5m and a cyclone air separator type ZUB 42/6.

The new plant will be built in parallel to the existing old mill building. In this way, the infra-structure, the facilities for stock keeping and conveying of the materials clinker, gypsum, limestone, slag etc. as well as the cement silos already existing and being built can be optimally utilised and incorporated into the conception.

The new grinding plant, a "semi-finish-grinding-system", essentially comprises the following main machines:

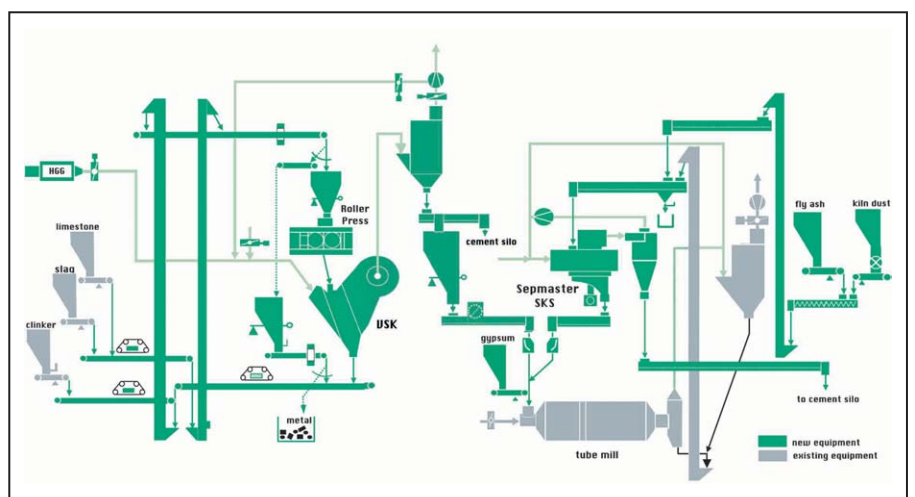
- VSK®- Separator,
- Roller Press RP 13-140/140
- high efficiency separator, type Sepmaster SKS, to the existing ball mill.

The new grinding plant is designed for a capacity of 135 t/h of cement with a

fineness of 3800 cm²/g (acc. to Blaine). 4 further cement qualities with finenesses between 3500 and 5000 cm²/g can be produced at different throughput rates.

Beyond the engineering and the supply of the mechanical facilities, the scope of supplies and services of KHD Humboldt Wedag AG also covers the complete process engineering including all main and auxiliary equipment, the complete electro-technical equipment including process control and automation as well as the supervision of erection and commissioning of the plant.

Commissioning of the new grinding plant is scheduled for the first quarter 2005.



The process:

The materials clinker, limestone, moist slag etc. are fed to the Roller Press. The grinding additives FGD gypsum, kiln filter dust and flyash are directly fed to the ball mill which will be equipped with a new high efficiency separator type Sepmaster SKS with a cage diameter of 2750 mm.

The Roller Press with a maximal throughput rate of 600 t/h is equipped with variable-speed drives (2 x 950 kW) for producing the different cement types. The VSK®-Separator connected behind realises the process steps of separating and drying. The fines are separated in a bag filter designed for a dust content in the clean gas of 15 mg/m³. From the bag filter, the fines are transported into an intermediate silo and, from there, fed to the existing ball mill at dosed volumes.

Cement mill upgrading with Roller Press/VSK®-Separator-grinding system

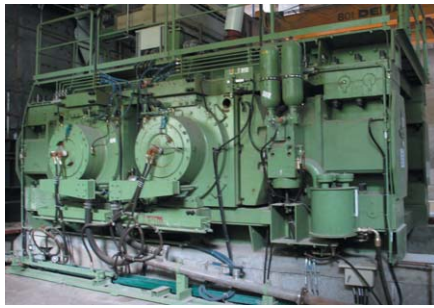
The outstanding success of the Roller Press-/VSK®-Separator-grinding system installed in the Bisha plant, Saudi Arabia, and being operated since April 2003 was one of the reasons for the customer Tabuk Cement Company (TCC) to place an order for their Cement Mill Upgrading Project with KHD Humboldt Wedag AG in Cologne, Germany.

The negotiations with the customer and his consultant, Austroplan Austria could be successfully terminated in December 2003. The objective of the

investment project of the TCC is an increase of the clinker grinding capacity of their 4000 t/d cement plant in Dubai, Governorate of Tabuk, Kingdom of Saudi Arabia. Regarding the product OPC, KHD Humboldt Wedag AG guarantees an increase from currently 90t/h to 180t/h at 3200 cm²/g (acc. to Blaine).

This capacity increase is achieved by the installation of a Roller Press RP 13/140-140 and a VSK®-Separator in the existing closed-circuit tube mill system. Beyond the engineering and the supply of machinery and equipment, KHD Humboldt Wedag AG will also render supervising services for erection and commissioning of the plant and will locally train the operating staff of TCC.

The start of commissioning is scheduled for April 2005.



Commissioning of the largest Roller Press in India starts

In September 2002 Jaypee Cement Ltd., New Delhi, India placed an order with Humboldt Wedag India Ltd., a subsidiary of KHD Humboldt Wedag AG,

Germany, to increase the capacity of its clinker grinding system at the Bela cement plant from 130t/h to 235t/h. Key plant components, all designed by KHD Humboldt Wedag, are:

- Roller Press RP16-170/140
- static V-Separator
- high efficiency separator, type Sepmaster SKS.

Commissioning of the new grinding circuit has started in January 2004.

The market calls for that VSK®-Separator!

- Dotternhausen plant, Rohrbach, Germany
- Ilmuiden plant, ENCI, Netherlands
- Bisha plant, Southern Province Cement, Saudi Arabia
- Iskenderun plant, OYSA Cimento, Turkey
- Jingyang plant, Chia Hsin Jingyang Cement, China
- CIMSА plant, CIMSА Cimento, Turkey
- Trinidad plant, Trinidad Cement, West Indies
- Duba plant, Tabuk Cement, Saudi Arabia
- Koromacno plant, HOLCIM (Hrvatska), Croatia

all grinding plants equipped with VSK®-Separator and Roller Press.

HIGHLIGHTS



24,000 hours with one pair of rolls

KHD Humboldt Wedag Roller Press at Readymix's Dortmund cement plant for grinding 80 t/h blast furnace slag in pregrinding mode.

A result of:

- reliable roller surface
- autogenous wear protection
- experienced operating staff.



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