

SALES NEWS  
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# The Pyrorotor® keeps convincing Ssangyong Cement

The demand for efficient and cost-effective alternative fuel-processing solutions in the cement industry is continuously increasing. Ssangyong Cement C&E Company Ltd. has understood the unique advantages of KHD's Pyrorotor® and ordered another unit for their Donghae plant in South Korea.



Pyroprocessing

Upgrade

### The fourth Pyrorotor® in one plant

Ssangyong Cement C&E Company Ltd (Korea) awarded a supply and engineering contract to Humboldt Wedag GmbH for the modernization of clinker production line five of their Donghae plant. This project marks the fourth Pyrorotor® installation in Ssangyong's plant.

The Pyrorotor® will enable Ssangyong to continuously achieve a thermal substitution rate (TSR) above 85% in the calciner. At the same time, thanks to the principle of staged combustion, Pyrorotor® will also ensure that NOX emissions can be kept low to satisfy the local emission limits in South Korea.

KHD's scope includes the engineering and supply of mechanical equipment for the clinker production as well as electrical equipment for the overall modernization of the production process. Aside from the installation of the Pyrorotor®, the modernization of production line five also includes the replacement of the existing calciner with a new Pyroclon® R and a new Pyrofloor<sup>2</sup>® walking floor clinker cooler.

#### The overall equipment scope consists of:

- Pyroclon® R calciner with Pyrotop® mixing chamber
- Pyrorotor® alternative fuel combustion reactor
- Pyrobox® coal firing system for process start-up and operation balancing



- Replacement of stage four cyclones with new high-efficiency cyclones for calciner connection and an overall pressure drop reduction
- A new kiln inlet chamber with orifice, kiln hood and tertiary air ducts
- A new Pyrofloor® PFC<sup>2</sup>738AW with a Pyrocrusher® PRC 420-4ES

The project scope is the same as the modernization contract of line four of Donghae plant, which was signed in February 2021 and currently is in commissioning.

The project execution will be a joint effort of Humboldt Wedag GmbH and as leading entity and Humboldt Wedag India as supporting partner. The commissioning of the modernized line five is scheduled for the fourth quarter of 2023.

The repeated decision for KHD's equipment and know-how of process optimization underlines the great relationship to Ssangyong Cement and their trust in KHD as a long-term partner. Moreover, the by now eighth Pyrorotor® installation in South Korea underlines the performance and capability of KHD's ingenious alternative fuel-processing solution. With several Pyrorotor® upgrades currently in negotiation, we expect further clients in South Korea, but also in other regions worldwide, to opt for Pyrorotor®, the only equipment that offers cost-effective alternative fuel processing combined with unmatched fuel flexibility.

### KEY BENEFITS

- Lower fuel costs by reducing primary fuels to a minimum
- Thermal substitution rate above 85% in the calciner
- Limited NO<sub>x</sub> emissions thanks to staged combustion
- Unmatched fuel flexibility

### LOCATION



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ABOUT KHD

**For over 160 years, we have been a global authority in the cement manufacturing process. KHD innovations have shaped the modern cement plant, and we continue in that tradition today.**

Our equipment and solutions help tackle the most pressing challenges: raising productivity, increasing efficiency, lowering production costs, and improving environmental performance.

From our roots in the heart of the German Rhineland, we have expanded around the world. We still develop, design and supply all core components for cement production in-house, and often rely on our own workshop. We work with proven industry partners to offer a complete suite of cement plant equipment and solutions. Our network of regional entities allows us to best serve and service every major cement market, and meet their individual requirements.

This time-tested blend of unparalleled cement industry experience, highest-quality equipment and engineering standards, and reliable industry partnerships ensures we are the expert partner when it comes to optimizing any cement plant operation – whether a new greenfield build or upgrade to an existing process lines.