With continuous attempts and strong spirit of POSCO E&C in steel plant business around the globe, POSCO E&C again created another success story in Southern America.
Companhia Siderúrgica do Pecém (CSP), in São Gonçalo do Amarante, Ceará, has officially started its operations on 4th April, 2017. This ceremony has been celebrated by many officials, such as CEO of CSP, Mr. Eduardo Parente, the governor of Ceará, Mr. Camilo Santana, president of VALE, Mr. Murilo Ferreira, CEO of DONGKUK, Mr. Sei-Wook Chang, CEO of POSCO, Mr. Oh-joon Kwon, the former governors, Mr. Cid Gomes and Mr. Lucio Alcântara, and other political authorities and businessmen from Ceará State.

During the ceremony, president of CSP, Mr. Eduardo Parente, mentioned that the Steel mill is responsible today for the injection of R$ 540 million in the economy of the State annually. He congratulated the employees who helped the construction and operation of the company and the governor of the State who, according to him, endeavored a lot to make the enterprise feasible. “The vision of the Complex of Pecém is brilliant”.

The governor of Ceará, Mr. Camilo Santana, highlighted in his speech the positive impact that the project brings to the State. The CSP’s production will increase 12% in the internal GDP of the State and in more than half of the industrial GDP. Over five thousand job positions were created, not to mention the wide range of business opportunities that arise around the environment. “Actually, it is not only a physical enterprise, but a project of iron, steel and concrete and a project which I have no doubts that it is changing the life of the people in Ceará.”

CSP honored all the governors of Ceará since Mr. Virgílio Távora, when it has started the work to attract a steel plant to the State. Present in the event, Mr. Lucio Alcântara, Cid Gomes and Camilo Santana received plates tribute. The ceremony of CSP’s inauguration was finished with authorities and businessman putting messages in a time capsule, which will be buried under a tree in the land of the company and will be opened in 2027.

**Partnership with Brazil**

There has been a relationship between Brazil and POSCO E&C since POSCO E&C first started business operations by completing the 4 million ton capacity pellet plant near Tubarao Port in southeastern Brazil in 1998.

Based on this project experience, POSCO E&C was awarded the EPC contract on 16th December, 2011 and it is a project being pursued by CSP. Constituted in 2008, CSP is a joint venture formed by the Brazilian VALE (50% shares), one of the biggest mining companies in the world, DONGKUK (30%), biggest worldwide buyer of steel slabs and POSCO (20%), fifth top steel-producing company in the world and the first one in South Korea. With an investment of US 5.4 billion, CSP is the first integrated steel plant in Northeast and the 30th installed in Brazil.

**History of CSP from the Ground-Breaking to its First Operation**

A ground-breaking ceremony for the Brazil CSP Steel Mill Complex was held at 11 am of 17th July, 2012. About 700 dignitaries including former president of POSCO E&C, Mr. Sung-Kwan Kim, governor of the State of Ceara, Mr. Cid Gomes, former vice president of POSCO, Mr. In-Hwan Jang and chairman of DONGKUK Steel, Mr. Se-Joo Jang, attended the ceremony.

From the beginning of the Project, POSCO E&C was deeply engaged in this project with POSCO E&C’s total solution, from feasibility study to construction. Cooperating with the client, sub-contractors, government authorities, POSCO E&C has once again proven its technical ability to successfully perform integrated steel mill project.

The CSP Steel Mill is located in an area of 571 hectares, integrates the CIPP (Industry an Port Complex of Pecém) and the production is geared towards the generation of high quality rolled products for the shipbuilding, oil and gas, automotive
and construction industries. The capacity installed is of 3 million tons of steel slabs/year in this first phase of the project.

The operation of CSP steel mill was kicked off after the blow-in ceremony on 10th June, 2016. This ceremony was held at the site with the participation of celebrities from Vale, the federal government, POSCO, POSCO E&C and DONGKUK.

**Accomplishment in CSP Steel Works**

In February this year, CSP has achieved a milestone of over 1 million tonnes of steel slabs exported through Pecém Port. The milestone was reached in the beginning of February with the departure of the ship Star Challenger, loaded with 55,675 tonnes of steel slabs, to the final destiny at Sahaviriya Steel Industries in Thailand. This is the third mark of one million that the company celebrates. Last year, the Steel Plant reached one million tons of pig iron in 20th November and one million tons of steel slabs produced in 28th December.

CSP Steel Mill expects to increase slab production of Brazil by 48% and the internal GDP of the State by 12%, and generate new jobs in Brazil. It looks like this monumental project will not only contribute to boosting the country’s economy, but also help promote a friendlier relationship between Korea and Brazil.

POSCO E&C has successfully completed mega project Brazil CSP as well as Indonesia PT.KP Integrated Steel Mill in overseas market as a result of enhancing its engineering capabilities and advanced technology. Furthermore, the success of the mega project as a sole contractor proves to the world the superiority of steel technology & skills and the project management.

**The Award of KAI Laboratory Facility Project**

POSCO E&C has succeeded to add a brand new record in the area of industrial plant to its success story by being awarded KAI Laboratory Facility Project. From KAI – Korea Aerospace Industries, Ltd. In this project, POSCO E&C is to play an important role in constructing all aspects of works including civil, architecture, mechanical, electrical and firefighting installation as a sole construction contractor. POSCO E&C has been building many facilities of KAI since 2009 including two on-going projects, a launch vehicle assembly plant project and a parts manufacturing plant project.

One of relevant representatives from POSCO E&C said, “One of key reasons we can be awarded would be the strong relationship and trust between KAI and us through delivering many projects successfully with our accumulated expertise and positive commitments until now.”

With this achievement, POSCO E&C, through this project, highly expects of a possible increase in track records and hands-on knowhow on project execution resulting in being competitive against its competitors.
The Largest Sinter Plant in the World

The sinter process is very important for stable operation of blast furnace, and large scale sinter machine is a key facility to make maximum production on a limited site area.

POSCO E&C has designed all facilities of sinter plant to meet the customer’s demand, and successfully completed making the world’s largest Gwangyang No. 5 sinter plant which has 600m² suction areas.

Moreover, Gwangyang No. 5 sinter plant shows high productivity and stable operation shortly after commissioning and hot-run test based on the high level of facility reliability and construction quality. So, it enables blast furnace to keep stable operation and reduce operation cost.

POSCO E&C has many EPC references of large-scale sinter plants, and can supply eco-friendly sinter plant which has the maximum productivity and reliability to customers.

Technologies for Maximum Production

1. Charging Equipment
   Roll type feeder increases sinter productivity and quality by making vertical segregation effect when charging the raw material to pallet.

2. Permeability Bar
   Permeability bar improves permeability at the bottom of sinter bed by making holes in the horizontal direction and increases sinter productivity.

3. Main and Sub Gate
   It’s a facility that can automatically control the ore charging on the bed according to sintering conditions checked by auto sensor and it can improve sinter quality.

4. Ignition Furnace
   It makes direct ignition to sinter bed surface using COG (Coke Oven Gas) as fuel, so it is very efficient and has compact size. COG, NG (Natural Gas), and mixed gas can be used as fuel.

5. Pallet
   POSCO E&C designed a wide pallet with excellent safety through the design optimization of pallet body. This equipment life has increased by applying high strength heat and wear resistant material.

Technologies for Eco-friendly Operation

1. De-Sox, De-Nox Facility
   This facility can remove the Sox, Nox, and Dioxin contained in exhaust gas during sinter process, and has high removal efficiency.

2. Flow Dynamic Conveyor
   This facility is to transport raw material by air levitation of belt. It is sealed type in order to reduce the dust scattering and fallen material. Moreover, it helps to reduce the noise and operation & maintenance cost by removing friction resistance.

3. Sinter Ore Silo
   Sinter ore silo which has 50,000ton storage capacity was installed to optimize the limited space, keep the quality of sinter ore, and prevent dust scattering.

4. Cooler Waste Heat Recovery System
   This facility is to produce steam by collecting the cooler waste heat.

5. ESP for Cooler
   Cooler is fully covered and equipped with the exclusive ESP to prevent the dust scattering.

The Eternal Alliance Promise between PIF and POSCO E&C

The President Yasireu Allumayan (Yasir Al-Rumayyan) of PIF (Public Investment Fund) in Saudi Arabia, the second biggest stockholder of POSCO E&C, visited POSCO E&C Song-do office building on 13th May for promising the mutual cooperation between PIF and POSCO E&C.

During the ceremony, the President Allumayan told, “POSCO E&C is the first enormous overseas investment for PIF. It is expected that we could participate in a various kind of construction projects in Saudi Arabia as well as be inherited the superior construction technology of POSCO E&C through the mutual cooperation in the long term.

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