

## **PRESS RELEASE**

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### **Successful startup of the DR plant at EZZ Steel in Egypt**

**Milano/Monterrey, January 28, 2016** – The new Direct Reduction (DR) plant installed at EZZ Rolling Mills (ERM) in Al Ain Sukhna, Egypt, successfully passed the performance test at the first trial just one month after the plant startup on December 20th, 2015. EZZ Steel expressed its full satisfaction and acceptance of the plant performance, recognizing the technology expertise which, in partnership with the professionalism of the ERM Team, allowed achieving this important milestone.

With a plant capacity of 2.0 million tons per year, the new Cold DRI Plant, featuring the ENERGIRON III technology, produced its first DRI on November 22nd, and passed the hot test completion. The plant, ready to increase its productivity, has been forced to work at reduced rate, due to limitations in the natural gas availability from the national network. The natural gas full availability was restored on December 14th and the plant has been successfully and quickly ramped up to its full productivity, allowing the performance test start on December 15th, only 13 days after the hot test completion. The test lasted 120 hours, during which the plant performed well above its target figures.

The productivity was 112% of the guaranteed value showing a metallization higher >94% and a carbon content higher >3%, a feature only achievable with the ENERGIRON technology.

A Natural gas specific consumption of 2.57 Gcal/t and Electric Energy of 30kWh/t complete the picture of an optimized technology with respect to the overall energy consumption. One of the most peculiar characteristics of the ENERGIRON technology is the raw material yield. The ERM plant showed an impressive ratio of 1.37 t of oxide per t of DRI and is able to process oxide pellets or lumps screened at 3.2mm, minimizing the rejected portion. All these results represent the lowest OPEX nowadays achievable in the DR technology panorama.

The total plant production already exceeded 110,000 tons in less than one month of operation, corresponding to 66% of the learning curve. The hourly production rate has reached 262t/h, corresponding to an annual productivity of 2.1Mtpy, more than 10% above the guaranteed value of 1.9Mtpy.

### **About Tenova**

Tenova is a worldwide supplier of advanced technologies, products and engineering services for the metals and mining industries providing innovative, integrated solutions for complete process areas. Tenova's network companies operate in 26 countries on 5 continents with more than 4,000 people. As part of Tenova's global network, Tenova HYL Technologies. (HYL) is the pioneer of the modern direct reduction industry. Since 1957, Tenova HYL has consistently led the field in technological improvements and is the current leader in state-of-the-art iron making process applications, specialized and leading in the design and supply of DRI.