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London, June 20, 2017

## World's largest single module HBI plant from Primetals Technologies and Midrex completes performance guarantee test at voestalpine Texas LLC

- **DRI Plant will produce two million metric tons of hot briquetted iron (HBI) per year**
- **14 day performance guarantee test completed with 100% achievement of performance parameters**
- **HBI production exceeds design criteria during the performance guarantee test period**

The 2.0 million metric ton per year Midrex hot briquetted iron (HBI) plant at voestalpine Texas LLC passed its performance test in early February of 2017. This Midrex HBI plant is both the largest single module of its kind in the world as well as North America's first HBI merchant facility. voestalpine Texas LLC is the local presence in South Texas of the voestalpine Group and a 100% subsidiary of voestalpine Steel Division.

The performance guarantee test began on January 29, 2017. Measurements included HBI production, HBI physical and chemical characteristics, the plant's key natural gas and electricity consumption, water quality measurements and environmental / emissions impacts. The performance guarantee test was successfully completed on February 11, 2017 and achieved 100% of tested performance guarantee parameters during the first attempt of the performance guarantee test. In addition the performance test of the fines recycling plant engineered by Primetals Technologies was successfully completed on February 10, 2017.

Primetals Technologies and Midrex were responsible for engineering, supply of bulk materials, mechanical and electrical equipment and advisory services for the Midrex plant. The Midrex plant produces high-quality HBI from iron ore pellets using the Midrex direct reduction process and through the use of natural gas significantly reduces the carbon footprint of the voestalpine Group. This is an important step in the achievement of the voestalpine Group's ambitious internal energy efficiency and

climate protection objectives. The price of natural gas in the USA is about one-quarter of the price in Europe. Around half of the planned two million tons of HBI will be supplied to the Austrian steel plants in Linz and Donawitz. The other half will be sold to partners interested in a supply over the long term.

MIDREX is a registered trademark of Kobe Steel, Ltd.



Midrex direct reduction HBI plant of voestalpine near the city of Corpus Christi, Texas on the Gulf of Mexico. The largest single module of this type worldwide was built by Primetals Technologies and Midrex Technologies, Inc. and achieved the performance guarantee test parameters in February 2017 (Photo courtesy of voestalpine).

This press release and a press photo are available at [www.primetals.com/press/](http://www.primetals.com/press/)

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**Primetals Technologies, Limited** headquartered in London, United Kingdom is a worldwide leading engineering, plant-building and lifecycle services partner for the metals industry. The company offers a complete technology, product and service portfolio that includes integrated electrics, automation and environmental solutions. This covers every step of the iron and steel production chain, extending from the raw materials to the finished product – in addition to the latest rolling solutions for the nonferrous metals sector. Primetals Technologies is a joint venture of Mitsubishi Heavy Industries (MHI) and Siemens. Mitsubishi-Hitachi Metals Machinery (MHMM) - an MHI consolidated group company with equity participation by Hitachi, Ltd. and the IHI Corporation - holds a 51% stake and Siemens a 49% stake in the joint venture. The company employs around 7,000 employees worldwide. Further information is available on the Internet at [www.primetals.com](http://www.primetals.com).

**Midrex Technologies, Inc.** is an international process engineering and technology company providing steelmakers with commercially proven solutions for greater profitability and has been the leading innovator and technology supplier for the direct reduction of iron ore for more than 40 years. The company offers eco-friendly technologies for ironmaking that provide high productivity, outstanding product quality, and cost competitiveness. Midrex has built its foundation upon the MIDREX<sup>®</sup> Direct Reduction Process that converts iron ore into high-purity direct reduced iron (DRI) for use in steelmaking, ironmaking, and foundry applications. Each year, MIDREX<sup>®</sup> Plants produce about 60 percent of the world's DRI. For more information, visit [www.midrex.com](http://www.midrex.com).