

Primetals Technologies Limited, a Full-line Provider with an Optimized Portfolio Covering Upstream to Downstream Steel and Metal Production Machinery



Primetals Technologies Limited

On January 7, 2015, Mitsubishi-Hitachi Metals Machinery, Inc. (MHMM) and Siemens VAI Metals Technologies GmbH (hereafter referred to as Siemens VAI) joined forces to form a new, global enterprise named “Primetals Technologies Limited” (hereafter referred to as Primetals Technologies) was launched. With the incorporated technology heritage from each of the former companies, the new company creates the best value across the value chain as a strong and experienced partner of its customers.

1. Primetals Technologies – an overview

In May 2014, the consolidation of the steel and metal production machinery businesses of the two companies was announced by parent companies Mitsubishi Heavy Industries, Ltd. (MHI) and Siemens AG. In this joint venture, MHMM^{Note 1} holds a 51 percent stake and Siemens AG a 49 percent stake.

Note 1: MHMM is capitalized by MHI, Hitachi, Ltd. and IHI Corporation.

This merging of MHMM and Siemens VAI was perfectly symmetrical from the perspective of portfolio, manufacturing expertise and geography. Siemens VAI had its particular strength in the upstream facilities of the ironmaking process such as raw-material processing, steelmaking, continuous casting processes, electric automation, process know-how, environmental technologies, and lifecycle services. On the other hand, MHMM prominently excelled at the downstream facilities such as hot rolling mills, cold rolling mills, processing units, and manufacturing expertise.

With the combined lines of such products, Primetals Technologies is now a full-line provider with an optimized portfolio covering the upstream to downstream steel production processes across the entire value chain, ranging from raw materials for iron and steelmaking to finished products.

2. Global network

United as one enterprise, Primetals Technologies will increase its presence in the global market. Through our globally-established business bases in the U.K. (headquarters), Japan, Austria, Germany, the U.S., China and India, we will readily expand business on a global scale including Asia, Europe, Russia, America and Africa.

The headquarters, which was newly built in London, provides support for administration, sales, marketing, procurement, manufacturing, and research and development to every region of the world without geographical restriction.

Based in more than 40 offices, engineering, workshop and service centers worldwide, 8,000 employees are currently at the immediate service of our customers. In addition, the international support network of our parent companies (MHI and Siemens AG) is comprised of more than 300 group sites in 190 countries.

3. Technology heritage inherited by the new company

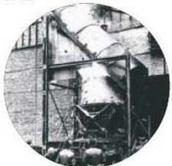
Presented below is the history of Siemens VAI and MHMM. Incorporating the technology heritage, the new company will create the best value across the value chain.

(1) Siemens VAI

Siemens VAI had more than 60 years of experience in metallurgical engineering and plant building. Focusing on research and development, the company developed many innovative technologies and products which became the pillars of today's smelting and steelmaking (**Table 1**).

The origin of the company dates back to 1952, as VOEST steelworks in Linz, Austria. It developed the world's first innovative oxygen steelmaking converter. This new technology was employed in steelworks in Linz and Donawitz, and was called an LD converter by combining the first letters of the two steelworks. Today, it is known as basic oxygen furnace converter and is widely used around the world.

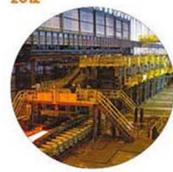
Table 1 History of Siemens VAI

<p>1952</p>  <p>1952: The origin of the company dates back to this year, as VOEST steelworks in Linz, Austria, and the company developed the world's first innovative oxygen top blown converter.</p>	<p>1956</p>  <p>1956: Voest-Alpine Industrieanlagenbau (VAI) was established. Its steelmaking technology was promoted worldwide, and the first product was delivered to an iron and steel works in Rourkera, India.</p>	<p>1968</p>  <p>1968: Start-up of the operation of its first continuous caster with a straight mold.</p>	<p>1989</p>  <p>1989: Acquired Korf Engineering Technology GmbH (Germany) with the key technology of smelting reduction processes. The first commercial operation of a Corex[®] plant, in which the direct reduction of iron ore takes place, started in South Africa.</p>
<p>1996</p>  <p>1996: Acquired Fuchs Group (Germany), substantially expanding its electric furnace business.</p>	<p>1999</p>  <p>1999: Acquired the iron and steel division of Kvaerner Metals, U.K. (former Davy McKee) and Clecim, France, increasing the range of products including blast furnaces and rolling mills.</p>	<p>2001</p>  <p>2001: Acquired Pomini a steel bar mill manufacturer in Italy.</p>	<p>2005</p>  <p>2005: Siemens AG (Germany) took over VA Tech Group including VAI.</p>
<p>2007</p>  <p>2007: Remodeled the Corex[®] plant of POSCO, South Korea, which led to the start-up of the first Finex[®] plant operation.</p>	<p>2008</p>  <p>2008: Acquired Morgan, a U.S. steel bar rolling mill manufacturer.</p>	<p>2009</p>  <p>2009: Start-up of the operation of the first endless strip production line (with direct-coupling of continuous casters and rolling mills) in Cremona, in conjunction with Arvedi, Italy.</p>	<p>2011</p>  <p>2011: Established the Mechatronics Competence Center in Linz, Austria.</p>
<p>2012</p>  <p>2012: Acquired FCE Drever a furnace company in the U.S.</p>	<p>2013</p>  <p>2013: Acquired Service Guide of the U.S.</p>	<p>Note 2: A type of smelting method without the use of blast furnaces</p> <p>Note 3: A type of smelting method without the use of sintering furnaces or coke ovens at the pre-reduction stage</p>	

(2) MHMM

As shown in **Table 2**, MHMM had a long history of specializing in machineries for rolling and processing of steel and metal plants. With a strong sales network especially in Asian countries for the downstream facilities of the machineries for rolling and processing of steel and metal, MHMM had established a solid position through its high manufacturing capabilities and reliable technologies with a proven track record.

Table 2 History of MHMM

<p>1953</p>  <p>1953: Supplied hoop mills (continuous hot-rolling mills) to the Kure plant of Nichia Steel Works, Ltd. (current Nisshin Steel Co., Ltd.) in Japan.</p>	<p>1984</p>  <p>1984: Start-up of the operation of Pair Cross mills, jointly developed with the then Nippon Steel Corporation, at Nippon Steel Corporation Hirohata Works, solidifying its position in the hot rolling mill market.</p>	<p>1990</p>  <p>1990: Supplied three hot-strip mills to POSCO Gwangyang Works, South Korea (investment phase 1)</p>	<p>2000</p>  <p>2000: Established MHI-Hitachi Metals Machinery, Inc. together with the steel and metal machinery division of Hitachi, which has excellent cold rolling mills technology. (In 2001, the domestic business operation was consolidated and the headquarters was relocated.)</p>
<p>2002</p>  <p>2002: Renamed the company Mitsubishi-Hitachi Metals Machinery, Inc., consolidating the design and procurement operations. (In 2003, the business bases were centralized and an integrated system entered operation.)</p>	<p>2004</p>  <p>2004: Mitsubishi-Hitachi Metals Machinery, Inc., U.S.A. was established, strengthening the after-sales service system for customers in North America.</p>	<p>2005</p>  <p>2005: Acquired New Genecoat, Inc. of the U.S., strengthening downstream business activities.</p>	<p>2006</p>  <p>2006: Established a joint venture called Changzhou Bao-Ling Heavy & Industrial Machinery Company Limited, together with Bao Steel Engineering & Equipment Company Limited (the biggest customer in China). This joint venture became the second biggest manufacturing base after the Hiroshima Machinery Works.</p>
<p>2007</p>  <p>2007: Mitsubishi-Hitachi Metals Machinery (Shanghai) Co., Ltd. was established in Shanghai, China, improving the customer information network and the after-sales service system in a key market area.</p>	<p>2010</p>  <p>2010: Start-up of the operation of bar joining machines (jointly developed with POSCO and Hitachi)</p>	<p>2010</p>  <p>2010: Mitsubishi-Hitachi Metals Machinery South Asia Private Ltd. was established in Delhi, India, improving the customer information network and the after-sales service system in a key market area.</p>	<p>2012</p>  <p>2012: Start-up of the operation of No. 2 hot-rolling mill at Usiminas Cubatao, Brazil</p>
<p>2013</p>  <p>2013: Integrated the rolling mill business of IHI Metaltech (the steel and metal machinery division of IHI Corporation), thereby increasing the range of products such as copper foil rolling mills and consolidating the technologies for plate mills and aluminum rolling mills.</p>	<p>2013</p>  <p>2013: Acquired Castal India Ltd., creating a base for taking on business in steel bar production facilities to expand through the supply chain and a complementary geographical strategy.</p>	<p>2013</p>  <p>2013: Acquired a 100% stake in Hasegawa Gear Works, Ltd., expanding business and starting dealing in cold rolling mill reducers and general industrial reducers.</p>	

4. Company name and logo

The new company name and logo embodies the corporate mission and synergy between the two united companies, emphasizing the start of a brand-new history as a single entity.

(1) Company name – Primetals Technologies Limited

The company name is a combination of the words: prime, metals and technologies. “Prime” represents the highest quality, and “Metals” stands for the passion and “technologies” for the strengths of the new company. Primetals Technologies thus underlines our position as the preeminent global authority in the metals technologies, reflects our commitment to deliver the highest-quality products, and signifies the invaluable technologies inherited from our predecessors.

(2) Logo

The logo circle symbolizes the two leading companies, MHMM and Siemens VAI, forging a close bond and being united as a single entity, with mutual respect for different background values, cultures and dispositions. The split circle at an angle indicates that we are moving forward and are focused on the future. Orange is the color emitted in the process of forging raw materials into liquid steel. It represents the fact that the outstanding technologies of Siemens VAI in the upstream process of ironmaking meet the rolling and processing excellence of MHMM in the downstream process (**Figure 1**).

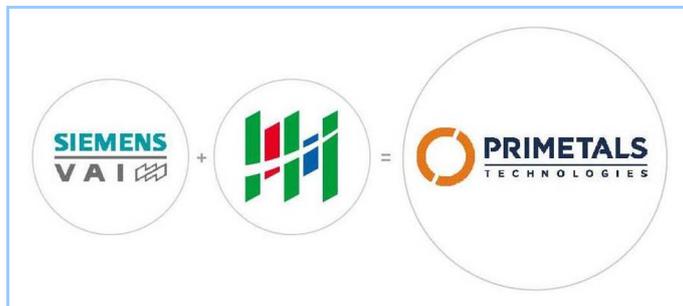


Figure 1 Logo of the new company

5. Combined portfolio and business areas

Based on the abundant experience acquired from the successful completion of projects, Primetals Technologies provides advanced and optimized solutions for integrated steelworks whether new or existing, as well as for all auxiliary facilities. Our integrated portfolio is comprised of mechanical equipment and mechatronic systems (i.e., drives, motors, automation, electrics, and electronics), as well as utility supply and energy technologies. Primetals Technologies manufactures the core components at its own state-of-the-art factories. This ensures that the machines and systems which we supply to our customers meet the highest standards in terms of workmanship, reliability and durability.

(1) Upstream process facilities

Siemens VAI had outstanding technologies and competitiveness in this field and had succeeded to expertise such as LD (BOF) steelmaking and continuous casting processes by VAI, Correx[®] and Finex[®] ironmaking processes (jointly developed with Korf Engineering GmbH of Germany and POSCO of South Korea, respectively), electric arc furnaces (EAF) of Fuchs Technology GmbH of Germany, and blast furnace technologies from the takeover of the Metals Division of Kvaerner of the UK (Left row in **Table 3**).

(2) Downstream process facilities

In this field, MHMM had an incomparable level of technologies and competitiveness, especially in terms of flat rolling. In addition to the rolling and processing technologies of MHI, Hitachi and IHI Corporation, Primetals Technologies has been further strengthened by integrating the bar and wire rod processing technologies of GFG-Peabody of the U.S., Pomini of Italy and Morgan of the U.S. (Right row in **Table 3**).

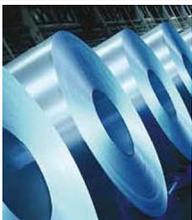
Table 3 Portfolio of Primetals Technologies

Upstream facility products	Downstream facility products
<ul style="list-style-type: none"> - Integrated mills - Mini-mills - Beneficiation plants - Coking plants - Sinter and pellet plants - Blast furnaces - Corex® and Finex® ironmaking plants - Direct-reduction plants - Converter steelmaking plants - Electric steelmaking plants - Stainless steelmaking plants - Secondary metallurgical facilities - Continuous casting plants - Arvedi ESP (endless strip production) - Strip-casting plants 	<ul style="list-style-type: none"> - Plate and steckel mills - Hot-rolling mills - Pickling plants - Cold-rolling mills - Nonferrous rolling mills - Bar and wire rod rolling mills, and tube and pipe mills - Strip-processing and finishing lines - Environmental plants - Electrics and automation - Metallurgical technologies and engineering services - Modernization packages

(3) Major business segments

Primetals Technologies is a dedicated lifecycle partner of its customers, making full use of its outstanding technologies covering everything from the upstream to downstream the steel and metal production processes in each field, as well as its strong service network (**Table 4**).

Table 4 Business segments of Primetals Technologies

 - Ironmaking	 - Steelmaking	 - Continuous casting and endless strip	 - Strip casting	 - Hot rolling
 - Cold rolling	 - Processing, tube and pipe mills	 - Eco solutions	 - Electrics and automation	 - Metallurgical and after-sales services

6. Our future direction

Primetals Technologies has unrivaled experience in the upgrading of facilities. The goal is to ensure that the machines and systems we supply operate at peak performance and cost-efficiently throughout their entire lifetime

By fostering a culture of innovation within the company and through incremental steps of continuous improvements in products and processes, Primetals Technologies will offer its customers groundbreaking and pioneering product developments and solutions, which enable them to meet increasingly stringent environmental requirements while reducing energy consumption and costs. That is, through innovative technology packages and process-optimization systems, we create long-term value for our customers, which will result in major improvements in the productivity, quality, flexibility and safety of plants.

Primetals Technologies will continue to provide services, products and technologies to benefit its customers. While promoting innovative technologies, we will lead the metals industry to a solid, reliable future.