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Primetals Technologies and Kappa are cooperating on dedusting systems for the iron and steel industry

- **Cooperation agreement covers research, development, marketing and sales**
- **For the first time, all function areas will be completely integrated in one filter building**
- **Plant concept reduces considerably dust emissions, noise emissions and energy consumption**
- **Innovative concrete panel structure allows local manufacturing and short assembly times**
- **Modular design facilitates future expansion**

In future, Primetals Technologies and Kappa Filter Systems (Kappa), Steyr, Austria, will be cooperating on the sales and marketing of dedusting systems for the iron and steel industry, as well as on their research and further development. An agreement to this effect has recently been signed. The key feature of the plants that will be jointly offered in future is the internationally patented Zeron large fabric filter system developed by Kappa. The solid concrete panel structure allows all the functional areas to be integrated compactly into one filter building for the first time – from the dust pre-separation to the clean gas stack. This leads to an optimal air flow pattern without turbulence or vortex, and the result is an extraordinary low total filter resistance. This considerably reduces the amount of energy required for operation in comparison to conventional bag filter systems. Dust emissions can be almost completely eliminated, and the noise emission level significantly reduced. The concrete panel structure increases the local value add, and substantially reduces both the logistics costs and the assembly times. The modular design facilitates future expansions, if required. The cooperation agreement will run for an initial term of five years.

Klaus Krüger, the managing director of Kappa, said, "Modern, clean and safe workplaces are increasingly becoming a location issue. With Zeron, we are taking a completely new approach. The system is no longer recognizable as a filter plant, but presents the appearance of an autonomous, high-quality industrial building of lasting value. Zeron gives the industry, which is located on the margins of

urban areas on account of the high demand for qualified employees, a completely new face – clean, attractive and safe."

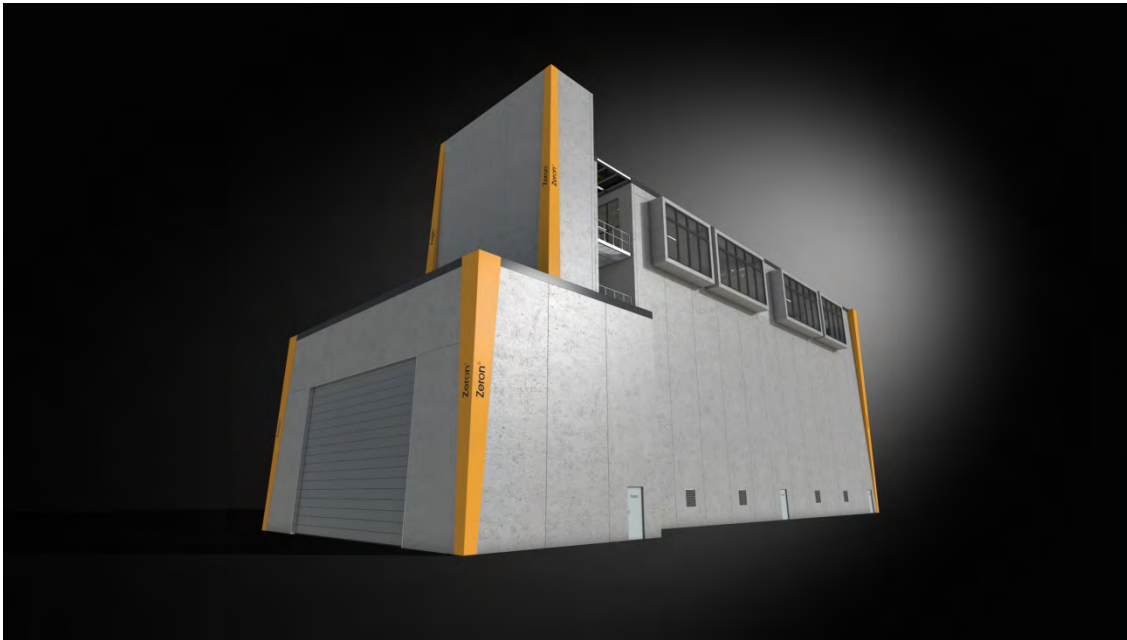
Dr. Alexander Fleischanderl, technology officer and head of ECO Solutions at Primetals Technologies, explained, "With this cooperation agreement, we are widening our portfolio for dedusting solutions for the iron and steel industry by adding a system that is not only considerably more environmentally friendly, but also has a much lower energy requirement and greater flexibility, even in respect of future requirements. The combination of innovative Zeron technology and plant, project and development know-how from Primetals Technologies offers our customers a complete package that brings together environmental protection and economic efficiency."

Zeron is already in successful use for dedusting in a number of industrial plants. The process today cleans volume flows of between 150,000 and 1.3 million working cubic meters per hour. The modular structure facilitates a space-saving, economical implementation, even for volume flows of several million working cubic meters per hour.

The cooperation between Kappa and Primetals Technologies will initially focus on dedusting systems for electric arc furnaces (EAF), minimills and secondary dedusting systems. The portfolio is scheduled to be widened step by step. The two companies have also agreed to investigate the possible applications of Zeron technology in other metallurgical plants. These include sintering and pelletizing plants, the primary dedusting of basic oxygen furnaces (BOF) processes with specific supplementary conditions regarding the temperature and composition of the gases to be cleaned.

Under the cooperation agreement, Primetals Technologies will primarily be responsible for sales and marketing. Kappa will handle the design and configuration of the Zeron filter, manufacture and deliver key components, as well as providing assembly and commissioning services. Primetals Technologies will be responsible for the design, configuration, manufacture, delivery, assembly, cold test and commissioning of the complete dedusting system.

Zeron is an EU Trademark of Kappa, registered at the European Union Intellectual Property Office.



Zeron large-scale dedusting system. In future, Primetals Technologies and Kappa will be cooperating on the sales and marketing of dedusting systems for the iron and steel industry, as well as on the research and further development of the Zeron technology (source: Kappa)

This press release and a press photo are available at 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.

Kappa Filter Systems is a leading manufacturer of systems and plants for industrial air purification and energy recovery. Its headquarters are in Steyr-Gleink, Austria. Kappa specializes in the maximum possible separation of industrial emissions from a commercial point of view and with the minimum use of energy. These two principles characterize the philosophy of Kappa: "zero emissions" and "zero waste of energy". Kappa stands for the highest air quality, way below the legal limiting values, and combines maximum cost efficiency with the efficient use of resources.

Kappa also focuses on a high-quality, aesthetic industrial design. Further information is available in the Internet at www.kappa-fs.com.

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