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## ASM INTERNATIONAL N.V. LAUNCHES SONORA® VERTICAL FURNACE SYSTEM

New system addresses 300mm advanced logic/foundry and memory applications with highest productivity and lowest cost of ownership in its class

San Francisco, USA – ASM International N.V. (Euronext Amsterdam: ASM) today introduced the SONORA<sup>®</sup> vertical furnace system with dual reactor chambers for 300mm wafers. The system's dual boat reactors produce the highest available throughput in its class, increasing reactor utilization to virtually 100%, while ensuring the lowest capex.

"The introduction of the novel SONORA<sup>®</sup> system is part of our strategy to selectively grow our vertical furnace presence in the market. The new SONORA<sup>®</sup> ensures that ASM will be strengthening its offering in advanced logic/foundry and memory applications as well as extend our leadership position in the market for More than Moore (such as analog and power) applications," said Hichem M'Saad, Chief Technology Officer and Member of the Management Board.

The new SONORA<sup>®</sup> is fully compatible with the original A412<sup>™</sup>, so existing process recipes are easily transferred, accelerating system qualification and ramp up. System deliveries have begun to multiple customers globally, among them leaders in advanced logic, and power device manufacturing.

ASM's predecessor A412<sup>™</sup> vertical furnace system has a proven track record of more than 1,000 reactors shipped to customers worldwide and over 22 years of maturity in semiconductor manufacturing. The new SONORA<sup>®</sup> has a novel system architecture that maximizes floor space productivity as well as service area. Its dedicated process modules have individually controlled high purity mini environments. Our innovative gas injection system for low pressure processing provides the best uniformities of deposited films between the individual wafers at larger load sizes. These larger process wafer load sizes combined with the updated control system, new robots, faster wafer cooldown, faster boat exchange modules generate up to 30% more productivity, compared to its predecessor. Higher productivity also results in lower energy and chemical usage per wafer. Special attention was given to the design for serviceability leading to a spacious access for all maintenance activities. The new system has been further modernized with an intuitive graphical user interface, predictive maintenance by advanced control diagnostics, and plug & play installation. Customers can count on the SONORA<sup>®</sup> delivering increased reliability and better ease of use with production output that achieves better repeatability, productivity, and time utilization.

Like its predecessor, the SONORA<sup>®</sup> offers a comprehensive portfolio of process applications including low pressure chemical vapor deposition (LPCVD) processes like doped silicon and silicon nitride films, diffusion processes such as wet oxidation and anneal processes, as well as a leading portfolio of atomic layer deposition (ALD) materials.

## PRESS RELEASE



## About ASM International

ASM International N.V., headquartered in Almere, the Netherlands, and its subsidiaries design and manufacture equipment and process solutions to produce semiconductor devices for wafer processing, and have facilities in the United States, Europe, and Asia. ASM International's common stock trades on the Euronext Amsterdam Stock Exchange (symbol: ASM). For more information, visit ASMI's website at <u>www.asm.com</u>.

Cautionary Note Regarding Forward-Looking Statements: All matters discussed in this press release, except for any historical data, are forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These include, but are not limited to, economic conditions and trends in the semiconductor industry generally and the timing of the industry cycles specifically, currency fluctuations, corporate transactions, financing and liquidity matters, the success of restructurings, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholders or other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, changes in import/export regulations, epidemics and other risks indicated in the Company's reports and financial statements. The Company assumes no obligation nor intends to update or revise any forward-looking statements to reflect future developments or circumstances.

This press release contains inside information within the meaning of Article 7(1) of the EU Market Abuse Regulation.

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