



ASM International N.V.

ASM International Announces Orders from Multiple Customers
Receives Volume order for A412™ Vertical Furnaces
Books Three New Customers for High-K Dielectrics
Using Atomic Layer Deposition Systems

Bilthoven, The Netherlands, July 27, 2004 --- ASM International N.V. (NASDAQ: ASMI and Euronext Amsterdam: ASM) today announced that it has received a significant order for its established line of Advance® A412™ 300mm vertical furnaces as well as three initial orders for the Company's high-k gate materials and systems for use in both transistor gate stack and DRAM capacitor applications. These orders were booked during the second quarter of 2004.

The A412 production order for a new 300mm facility in the United States calls for deliveries to commence in December 2004. "ASM's selection for this major new facility is another testimonial to the A412™ 300mm version's unique concept of dual reactors and dual boat features, which have proven to make it the most productive in the industry, processing up to 150 wafers at high temperatures," commented Arthur del Prado, ASM's President and Chief Executive Officer.

ASM is a leader in 300mm vertical furnaces and has been building and selling furnaces for oxidation, diffusion and LPCVD processes since 1968. The A412™, a member of the Advance® 400 Series vertical furnaces, incorporates two reactors above a rotating carousel, the capability to process 200mm and 300mm wafer sizes concurrently, dual-boat feature, on-board integrated metrology, and many other advanced features that make the A412™ the most flexible, productive and advanced 300mm vertical furnace available today.

ASM was also selected as the supplier to develop high-k dielectric materials and metals for gate stacks and DRAM capacitors in three separate competitive wins. The company received orders for its 300mm Polygon® cluster platform and the Pulsar® ALCVD module. These ALD system deliveries will be completed this year.

“ASM is especially pleased today to add three world-class companies, one in the U.S.A. and two in Taiwan, to our roster of TCP group customers for Atomic Layer CVD™ (ALCVD™),” Mr. del Prado announced. “ASM has established itself as the industry leader for advanced high-k gate and capacitor applications. Our TCP Group (Transistor-Capacitor Products) has created very strong momentum in the market at leading accounts in the industry for our breakthrough ALCVD™ process which is the ideal solution for many advanced applications requiring deposition of thin films.”

About ALCVD™

ALCVD™ was developed and patented by ASM and originally introduced to the semiconductor industry. ALCVD™ is a surface controlled, layer-by-layer process for the deposition of thin films with atomic layer accuracy. Each atomic layer formed in this sequential process is a result of saturated surface-controlled reactions. The surface-controlled growth mechanism of ALCVD™ provides excellent step coverage and dense films with no pinholes. The precision achieved with ALCVD allows processing of extremely thin films in a controlled way in the sub 50 Ångstrom range.

About ASM

ASM International N.V. headquartered in Bilthoven, the Netherlands, is a global company servicing one of the most important and demanding industries in the world. The Company possesses a strong technology base, state-of-the-art manufacturing facilities, a competent and qualified workforce and a highly trained, strategically distributed support network. ASM International and its subsidiaries design and manufacture equipment and materials used to produce semiconductor devices. ASM International and its subsidiaries provide production solutions for wafer processing (Front-end segment) as well as assembly and packaging (Back-end segment) through facilities in the United States, Europe, Japan and Asia. ASM International’s common stock trades on NASDAQ (symbol ASMI) and Euronext Amsterdam Stock Exchange (symbol ASM). For more information, visit ASMI’s website at www.asm.com

Safe Harbor Statement under the U.S. Private Securities Litigation Reform Act of 1995: All matters discussed in this statement, 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, currency factors, litigation involving intellectual property, shareholder and other issues, commercial and economic disruption due to terrorist activity, armed conflict or political instability and other risks indicated in the Company’s filings from time to time with the U.S. Securities and Exchange Authorities.

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