

SECURITIES AND EXCHANGE COMMISSION

FORM 6-K

Current report of foreign issuer pursuant to Rules 13a-16 and 15d-16 Amendments

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ASM INTERNATIONAL N V

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SIC: **3559** Special industry machinery, nec

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FORM 6-K

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

REPORT OF FOREIGN PRIVATE ISSUER Pursuant to Rule 13a-16 or 15d-16 of the Securities Exchange Act of 1934

For the month of December, 2007
Commission File Number 000-13355

ASM INTERNATIONAL N.V.

(Translation of registrant's name into English)

JAN VAN EYCKLAAN 10
3723 BC BILTHOVEN
THE NETHERLANDS

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and had not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934. Yes No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-_____.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: December 10, 2007

ASM INTERNATIONAL N.V.

/s/ **ARNOLD J.M. VAN DER VEN**

Arnold J.M. van der Ven
Managing Director and
Chief Financial Officer

ASM INTERNATIONAL N.V.
(THE "REGISTRANT")
(COMMISSION FILE NO. 0-13355)

EXHIBIT INDEX
TO
FORM 6-K
DATED DECEMBER 10, 2007

<u>Exhibit No.</u>	<u>Exhibit Description</u>	<u>Filed Herewith</u>
99.1	ASM INTERNATIONAL IN VOLUME PRODUCTION WITH ALD HIGH-K PROCESS FOR 45-NM TECHNOLOGY	X



ASM International in Volume Production with ALD High-k Process for 45-nm Technology

Over 30 Systems in Production with Leading Logic and Foundry Customers

BILTHOVEN, THE NETHERLANDS, DECEMBER 10, 2007 – ASM America, Inc., a subsidiary of ASM International N.V. (NASDAQ: ASMI and Euronext Amsterdam: ASM), today announced that its Pulsar[®] ALCVD[™] process module is now in volume production for 45-nm high-k applications using hafnium-based process technologies. ASM has already installed more than 30 Pulsar process modules for pilot and volume production with multiple leading IDM and foundry customers.

To meet the stringent requirements for volume production of CMOS logic devices at the 45-nm technology node, ASM optimized its atomic layer deposition (ALD) processes for hafnium-based dielectric films, including hafnium oxide, and also offers mixed oxides such as hafnium silicate and hafnium zirconium oxide. These dielectrics present a major breakthrough in 45-nm metal gate transistor and capacitor technology, as traditional dielectrics such as silicon dioxide reach their scaling limits. These advanced materials can improve device performance with as much as 10,000 times lower gate leakage current compared to traditional dielectrics, and they meet the film performance specifications for volume production of 45-nm CMOS, including electrical thickness, gate leakage current, channel carrier mobility, and reliability.

“ASM has been a pioneer in ALD technology and is now reaping the benefits of its continued investments in this field by bringing ALD into volume production for 45-nm hafnium based high-k films,” said Glen Wilk, Product Manager for Transistor Products at ASM. “To date, we have shipped in total over 80 Pulsar modules for high-k ALD films on logic and memory applications, with leading logic and foundry customers, including several members of the leading logic Alliance.”

About Pulsar 3000

Pulsar[®] 3000 is the atomic layer chemical vapor deposition (ALCVD[™]) process module used in ASM's Polygon[®] 300-mm cluster tool for single wafer, thin-film deposition. ALCVD is a surface-limited, layer-by-layer process for the deposition of thin films with atomic layer accuracy. Each monolayer formed in this sequential process is a result of saturated, surface-controlled reactions. These surface reactions work well at lower temperatures, such as 25 - 350°C, compared with MOCVD, where higher temperatures are often required to cause decomposition of molecules for film deposition to occur. Low-temperature deposition is important, as thermal

budgets are continually decreasing for many applications. The surface-controlled growth mechanism of ALCVD therefore provides unparalleled step coverage and dense films, all at low temperatures. The precision achieved with ALCVD allows processing of extremely thin films in a highly controlled way over a wide range of thicknesses, typically from 10 to 1000 Å.

About ASM

ASM International N.V. and its subsidiaries design and manufacture equipment and materials used to produce semiconductor devices. The company provides 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 the Euronext Amsterdam Stock Exchange (symbol ASM). For more information, visit ASMI's web site at www.asm.com.

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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 generally and the timing of the industry cycles specifically, currency fluctuations, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholder and other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, epidemics and other risks indicated in the Company's filings from time to time with the U.S. Securities and Exchange Commission, including, but not limited to, the Company's reports on Form 20-F and Form 6-K. The Company assumes no obligation nor intends to update or revise any forward-looking statements to reflect future developments or circumstances.

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