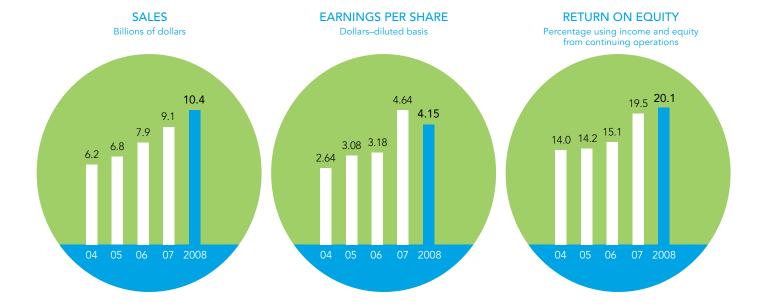


2008 ANNUAL REPORT



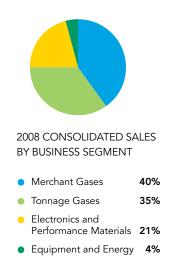


(Millions of dollars, except per share)

FOR THE YEAR	2008	2007	Change
Sales	\$10,415	\$9,148	14%
Operating income	1,496	1,376	9%
Income from continuing operations	1,091	1,020	7%
Net income	910	1,036	(12%)
Capital expenditures on a non-GAAP basis ^(A)	1,355	1,635	(17%)
Return on capital employed on a non-GAAP basis ^(B)	13.0%	12.5%	
Return on average shareholders' equity ^(C)	20.1%	19.5%	
Operating margin	14.4%	15.0%	
PER SHARE DOLLARS			
Basic earnings	\$4.29	\$4.79	(10%)
Diluted earnings	4.15	4.64	(11%)
Dividends	1.70	1.48	15%
Book value	24.03	25.52	(6%)
AT YEAR END			
Shareholders' equity	\$5,031	\$5,496	
Shares outstanding (in millions)	209	215	
Shareholders	8,900	9,300	
Employees ^(D)	21,100	22,100	

 ⁽A) Includes additions to plant and equipment, investments in and advances to unconsolidated affiliates, acquisitions, capital lease additions, and capital lease expenditures under EITF No. 01-08. See page 8 for reconciliation to GAAP results.
 (B) Calculated as earnings after tax divided by five-quarter average total capital. See page 8 for reconciliation to GAAP results.
 (C) Calculated using income and equity from continuing operations.
 (D) Includes full- and part-time employees from continuing and discontinued operations.



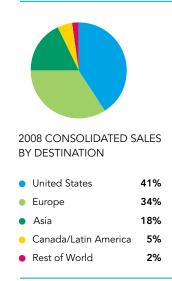


energy environment emerging markets execution •

With our leading supply positions as our foundation for growth, we are providing solutions that address significant trends in energy, the environment and emerging markets. These trends drive strong demand for our products, regardless of shifts and changes in the global economy.

Meanwhile, we continue our commitment to execute as a higher growth, higher return company—to consistently grow our top line while driving down costs and expanding our margins.

At the heart of what we do is practical, insightful problem solving that is focused on keeping our customers a step ahead of their competition, enabling their growth as well as our own.





Our Businesses, Our Opportunities

Every day, Air Products people bring their deep understanding and applications expertise to the industries and markets we serve all over the world. Through their knowledge and relationships, they create unique answers to our customers' problems. It's this combination of perspective and breadth that allows us to apply solutions to some of the world's most pressing energy, environmental and emerging market needs. We believe this will drive profitable growth and sustainability for our customers and our company in the decades to come.

2008 CONSOLIDATED SALES

\$4.2 billion

MAJOR END MARKETS

glassmaking, steel, nonferrous,
oil field services, pulp and paper, water systems,
metal manufacturing, chemical processing,
rubber and plastics, packaging, food and
beverage, healthcare, medical, research and
analytical, aerospace, and electronics

2010 SEGMENT OPERATING MARGIN GOAL

20%



MERCHANT GASES

Industrial and medical customers throughout the world depend on our oxygen, nitrogen, argon, helium, hydrogen, and medical and specialty gases for a wide array of applications. We supply most merchant gas in liquid form to small and larger customers—delivered by the Air Products tankers you see on the road. We provide smaller quantities of our "packaged" gases in cylinders and dewars for customers who require more exacting quantities for their processes. And we make available proprietary on-site gas generation devices (cryogenic and noncryogenic) to meet customers' varying purity, pressure and flow rate requirements economically.

- e⁴ We lead in oxy-fuel combustion technology for glass and metals manufacturing, with patented Cleanfire® burners that provide high fuel efficiencies and production rates and significantly reduce emissions.
- e⁴ Demand is strong for our **differentiated packaged gas products**—including BIP® technology for analytical markets and Maxx[™] gases for welding—that address purity, safety, handling and weight requirements.
- e⁴ Through the world's largest helium supply network, we supply critical applications such as magnetic resonance imaging, welding, and fiber optics and semiconductor manufacturing.
- e⁴ We have unmatched experience providing **packaging**, **cooling**, **chilling** and **food freezing innovations** that reduce waste, preserve quality, and drive more efficient energy use.
- e⁴ Fast-growing industrial and manufacturing sectors in Asia are driving strong growth for our liquid and on-site oxygen, nitrogen, argon, hydrogen and helium.

2008 CONSOLIDATED SALES

\$4.0 billion

MAJOR END MARKETS

petroleum refining, chemical and petrochemical manufacturing, oil and gas recovery and processing, steel and primary metals processing

ANTICIPATED CONTINUED
H, GROWTH

10%-15%



TONNAGE GASES, EQUIPMENT AND ENERGY

Through our Tonnage Gases segment, we supply hydrogen, carbon monoxide, synthesis gas, nitrogen and oxygen via large on-site facilities or pipeline systems to meet the needs of large-volume, or "tonnage," industrial gas users. We either construct a gas plant adjacent to or near the customer's facility or deliver product through a pipeline from a nearby location. We also design and manufacture cryogenic and gas processing equipment for air separation, hydrocarbon recovery and purification, natural gas liquefaction (LNG) and helium distribution equipment, and we are pioneering technologies to serve future energy markets through our Equipment and Energy segment.

- e⁴ We are the world's leading supplier of refinery hydrogen for producing cleaner-burning transportation fuels and increasing the amount of energy that can be produced from every barrel of crude oil.
- e⁴ We are the **global leader in providing LNG heat exchanger equipment** and services to convert remote or stranded natural gas into useful energy products.
- e⁴ We are one of the few companies in the world capable of supplying the massive-scale oxygen plants needed for gasification and gas-to-liquids projects.
- e⁴ We are at the forefront of hydrogen energy technology development, having designed and installed more hydrogen fueling stations and infrastructure than anyone else.
- e⁴ With our decades of oxyfuel combustion experience, we are a global leader in technical options for capturing carbon dioxide from fossil fuel conversion before it reaches the atmosphere.

2008 CONSOLIDATED SALES

\$2.2 billion

MAJOR END MARKETS

silicon and compound semiconductors (ICs), thin-film transistor liquid crystal displays (TFT-LCDs), photovoltaic devices, coatings, inks, adhesives, civil engineering, personal care, institutional and industrial cleaning, mining, oil field, polyurethane production

2010 SEGMENT OPERATING MARGIN GOAL

15%





- e⁴ We supply a focused portfolio of **over 30 leading electronic specialty materials** essential to global IC, TFT-LCD and PV production.
- e⁴ Our **advanced low-k dielectrics**—such as our leading PDEMS[™] material technology for 45nm—have become the materials of choice for next-generation logic devices.
- e⁴ Our epoxy curing agents and polyurethane, specialty and functional additives provide distinct performance benefits in use, helping customers create products that are better than the competition, and better for the environment.
- e⁴ Our unique expertise in **high-k materials and deposition processing** is allowing memory customers to significantly extend their photolithography roadmap without costly capital investment.
- e⁴ Our unique line of **naturally derived Tomadol® surfactants** meets the market need for more effective, faster cleaning agents that sustain our resources and our environment.

Letter to Shareholders

Dear Shareholder:

As I write this letter, it's difficult finding words to describe the volatility and turbulence playing out in the world financial markets and the global economy, and the impact on all of us.

The financial crisis has spilled over into the general economy. The global manufacturing outlook has turned decidedly negative. And across various sectors, uncertainty is high.

In these unprecedented times, what I've been telling Air Products employees around the world is to stay focused on our four priorities: continuing to build on our growth, delivering superior financial returns, staying connected to the opportunities a changing world brings, and developing skills and translating them into a benefit for our company and society.

Despite these times, we are not wavering on our commitments to our investors, customers and employees in our quest to be a more focused, less cyclical, higher growth and higher return company.

We have taken many important actions over the past few years to standardize our work processes and

globalize our businesses. With a single global

instance of SAP, we are speaking a universal language to rapidly share information,

allowing us to streamline our supply chain.

Most importantly, we have built strong positions providing critical gases, related equipment and applications expertise to growing energy, environmental and emerging markets. While there are certainly challenges in the economy in the near term,

these areas remain important drivers for growth

in the long term.



John E. McGlade Chairman, President and Chief Executive Officer

Certain amounts and comparisons to the prior year in this letter are considered non-GAAP measures. Please see page 8 for the comparable GAAP amounts and reconciliations.

OUR PERFORMANCE

We achieved our fifth consecutive year of double-digit growth in fiscal 2008. We continued to manage our portfolio, divesting our polymer emulsions and high purity process chemicals businesses and making progress toward selling our U.S. healthcare operations. We approached our 15 percent margin goal for the year—clear progress against our commitment to achieve 17 percent margins by 2010.

Sales of \$10.4 billion were up 14 percent and income from continuing operations of \$1.1 billion was up 16 percent from the prior year. Operating income of \$1,522 million increased 12 percent, driven by Merchant Gases, up 21 percent, and Tonnage Gases, up 13 percent. Performance Materials showed significant improvement as well, partially offset by Electronics, which declined as a result of a plant fire in Korea and weaker volumes in our fourth quarter.

We increased our premium to the cost of capital, driving a 50 basis point improvement in ROCE to 13 percent. We again strengthened our balance sheet, with cash flow from continuing operations of \$1.7 billion. Our debt-to-debt plus equity ratio ended the year at 43 percent.

Importantly, we retain our strong "A" credit rating both for short-term and long-term financial stability, and we have ready access to the short-term debt market.

Capital expenditures were \$1.4 billion, including \$72 million on acquisitions. The sustained strength of our operating cash flows allowed us to repurchase \$787 million in shares—the fourth consecutive year we've bought back \$500 million or more of our stock. An additional \$650 million in share repurchase authorization remains. In keeping with our long-standing tradition, 2008 also marked our 26th consecutive year of dividend increases for shareholders.

Above all, I am very proud of our Air Products employees throughout the world. They delivered this outstanding performance while once again achieving benchmark environmental, health and safety performance.

GROWTH SERVING THE "Es"

In today's world, customers and communities demand sustainable solutions, and we have a long history of product and technology innovation to address market needs. By their very nature, our gases and materials boost energy efficiency, increase the throughput and capital efficiency of machinery and equipment, enhance end product quality, and improve environmental performance. These benefits become even more critical for our customers in challenging times.

For example, the skills that have made us the global leader in refinery hydrogen—project development, operational excellence, complex process operations and project execution—have given us a distinct advantage serving growing energy areas such as gasification, gas-to-liquids, oil sands conversion and nonconventional fuels processing. We brought six Tonnage plants onstream in fiscal 2008, including a new nitrogen facility supporting PEMEX's enhanced oil recovery goals in Mexico, and our second hydrogen plant for Petro-Canada's refinery in Edmonton, Alberta.

We also announced a number of significant new business signings, including contracts with US Steel at Nanticoke, Ontario, Canada; Total Petrochemicals in Port Arthur, Texas; Weihe Clean Energy in Western China; Eastman Chemical's gasification project in Beaumont, Texas; and ExxonMobil's refineries in Baton Rouge, Louisiana and Baytown, Texas. Meanwhile, we are leveraging our large plant and applications experience to support the development of oxyfuel technology for greenhouse gas mitigation. With an eye toward the future, our hydrogen fueling and infrastructure leadership now includes more than 90 fueling stations in 15 countries.

In fact, once considered "future" energy and environmental market opportunities are quickly becoming reality today. During 2008, we won several bulk and specialty gas contracts serving photovoltaic manufacturers. Our low-k and high-k dielectric specialty materials have become essential for leapfrogging current technology and developing more powerful and more energy-efficient electronic devices. Market penetration of our performance materials—like our eco-friendly Tomadol® surfactants and Anquamine® epoxy curing agents—continues to improve, with new products increasing 30 percent over the prior year.

We operate in over 40 countries, and today nearly 60 percent of our sales are outside of the U.S. Along with growing opportunities in energy and environmental markets, we are well positioned to capture growth in emerging geographies, from China and Asia at large, to Central/Eastern Europe, to the Middle East. In China, we are building strategic positions serving growing steel, chemicals and glass customers. In Central and Eastern Europe, we continue to capitalize on our Poland acquisition by expanding into neighboring areas like Russia, where we are winning new supply contracts. In the Middle East, through a recent joint venture, we are building two new air separation units to supply oxygen and nitrogen for local iron, steel and glass production.

In a number of high growth regions, we have chosen to work with partners to more quickly develop the market. Our largest equity affiliate positions are in Mexico, Italy, South Africa, Thailand and India, and they have become a significant differentiator. All told, equity affiliates delivered \$145 million in income during the year.

On a 100 percent basis, they achieved \$2.3 billion in revenue, 12 percent growth over the prior year.

Doing the right thing is important, which is where strategy comes in. But doing that thing well—execution—is what sets companies apart.

Jeffrey Pfeffer,
Stanford professor and author

EXECUTION

Over the past years, we've invested in the best tools, including a single instance of SAP, global work processes, shared service centers and a company-wide continuous improvement process. We've underpinned this investment with a global organization, directly aligning our people, capital and R&D to support markets and businesses where we feel we can grow faster than our competitors. We also have continued to drive down SG&A as a percentage of sales, bringing it to 10.5 percent for the year.

With these collective efforts as a foundation, we are executing to take Air Products to a new level of performance. It starts with achieving our 17 percent margin goal by 2010. This commitment will require steady progress over the next two years, delivering growth, strong pricing, and increased productivity. This includes using our investments in global systems and processes to further lower our finance, IT and customer service costs; increase maintenance efficiency; and leverage our global buying power. We will apply Six Sigma techniques to boost energy efficiency at our plants and will reduce our distribution expenses through more fuel-efficient equipment and optimized scheduling. The goal of these actions is to reduce the cost of doing business.

EYES TOWARD THE FUTURE

In the next year, we see significantly slowing global manufacturing growth. That said, we plan to bring 20 new plants onstream, representing nearly \$500 million of new capital, delivering growth in these challenging times.

In the longer term, we see excellent demand for our products and significant growth prospects. Projects supplying hydrogen for clean fuels and oxygen for gasification and capturing carbon emissions, for example, will be key drivers of our increased capital spending.

In closing, while I believe we are in unprecedented times, our employees—most of whom are shareholders—are more committed than ever to delivering increased shareholder value. I have great faith in our people—they are up to the challenge of driving Air Products to be an even more focused, less cyclical, higher growth and higher return company.

Very truly yours,

John E. McGlade

Chairman, President and Chief Executive Officer

NON-GAAP MEASURES

(millions of dollars, except for share data)

The Letter to Shareholders beginning on page 4 contains non-GAAP measures which adjust results to exclude the effect of several items that are detailed in the Notes to the consolidated financial statements. The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures which the Company's management uses internally to evaluate the Company's baseline performance. Presented below are reconciliations of reported GAAP results to non-GAAP measures.

Consolidated Results

	Continuing Operations		
	Operating Income	Income	Diluted EPS
2008 GAAP	\$1,495.8	\$1,090.5	\$4.97
2007 GAAP	1,375.6	1,019.6	4.57
% Change GAAP	9%	5 7%	9%
2008 GAAP	\$ 1,495.8	\$1,090.5	\$4.97
Pension settlement	26.3	16.5	.08
2008 Non-GAAP Measure	\$1,522.1	\$1,107.0	\$5.05
2007 GAAP	\$ 1,375.6	\$1,019.6	\$4.57
Gain on contract settlement	(36.8)	(23.6)	(.11)
Global cost reduction plan	13.7	8.8	.04
Pension settlement	10.3	6.4	.03
Donation/sale of cost investment	(5.0)	(19.8)	(.09)
Tax audit settlements/ adjustments	_	(38.8)	(.17)
2007 Non-GAAP Measure	\$ 1,357.8	\$ 952.6	\$4.27
% Change Non-GAAP	12%	6 16%	18%

	Operating Sales Income Margir		
2008 GAAP	\$10,414.5	\$1,495.8	14%
2008 Non-GAAP	10,414.5	1,522.1	15%

Merchant Gases

	Operating Income
2008 GAAP	\$789.5
2007 GAAP	656.4
% Change GAAP	20%
2007 GAAP	\$656.4
Donation/sale of cost investment	(5.0)
2007 Non-GAAP Measure	\$651.4
% Change Non-GAAP	21%

Tonnage Gases

% Change Non-GAAP	13%
2007 Non-GAAP Measure	\$426.4
Gain on contract settlement	(36.8)
2007 GAAP	\$463.2
% Change GAAP	4%
2007 GAAP	463.2
2008 GAAP	\$482.6
	Income

Operating

Return on Capital Employed (ROCE)

ROCE is calculated as earnings after tax divided by five-quarter average total capital. Earnings after tax is defined as operating income and equity affiliates' income, after tax at the Company's effective tax rate. On a non-GAAP basis, operating income and taxes have been adjusted for the disclosed items detailed in the consolidated results table. Total capital consists of total debt, shareholders' equity, and minority interest.

	2008	2007	Basis Point Change
Earnings after tax GAAP	\$1,228.7	\$ 1,162.7	
Five-quarter average total capital	9,560.4	8,690.5	
ROCE GAAP	12.9%	13.4%	(50)
Earnings after tax non-GAAP	\$1,245.0	\$1,088.4	
Five-quarter average total capital	9,560.4	8,690.5	
ROCE Non-GAAP	13.0%	12.5%	50

Capital Expenditures

The Company utilizes a non-GAAP measure in the computation of capital expenditures and includes spending associated with facilities accounted for as capital leases. Certain facilities that are built to service a specific customer are accounted for as capital leases in accordance with EITF No. 01-08, "Determining Whether an Arrangement Contains a Lease," and such spending is reflected as a use of cash within cash provided by operating activities.

(billions of dollars)	2008	2007
Capital Expenditures GAAP	\$1,159.3	\$1,552.5
Capital lease expenditures under		
EITF No. 01-08	195.7	82.8
Capital Expenditures Non-GAAP	\$1,355.0	\$1,635.3

SHAREHOLDERS' INFORMATION

Common Stock Information

Ticker Symbol: APD

Exchange Listing: New York Stock Exchange

Transfer Agent and Registrar:

American Stock Transfer and Trust Company 59 Maiden Lane, New York, NY 10038

Telephone: 800-937-5449 Internet: www.amstock.com E-mail: info@amstock.com

Publications for Shareholders

In addition to this Annual Report, Air Products informs share-holders about Company news through:

Notice of Annual Meeting and Proxy Statement – made available to shareholders in mid-December and posted to the Company's Web site at www.airproducts.com/invest/.

Form 10-K Report – filed annually with the Securities and Exchange Commission at the end of November.

Earnings Information – shareholders and investors can obtain copies of earnings releases, Annual Reports, 10-Ks and news releases by dialing 800-AIR-6525. Shareholders and investors can also register for e-mail updates on our Web site.

Dividend Policy

Dividends on Air Products' common stock are declared by the board of directors and, when declared, usually will be paid during the sixth week after the close of the fiscal quarter. It is the Company's objective to pay dividends consistent with the reinvestment of earnings necessary for long-term growth.

Annual Meeting

The annual meeting of shareholders will be held on Thursday, January 22, 2009.

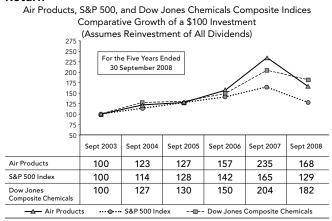
2008 Quarterly Stock Information

	High	Low	Close	Dividend
First	\$105.02	\$92.05	\$98.63	\$.38
Second	98.80	80.73	92.00	.44
Third	106.06	92.20	98.86	.44
Fourth	100.14	65.05	68.49	.44
				\$1.70

2007 Quarterly Stock Information

	High	Low	Close	Dividend
First	\$72.45	\$66.19	\$70.28	\$.34
Second	78.63	68.58	73.96	.38
Third	82.74	73.30	80.37	.38
Fourth	98.51	77.26	97.76	.38
				\$1.48

Comparison of Five-Year Cumulative Shareholder Return



Direct Investment Program

Current shareholders and new investors can conveniently and economically purchase shares of Air Products' common stock and reinvest cash dividends through American Stock Transfer and Trust Company. Registered shareholders can purchase shares on American Stock Transfer and Trust's Web site, www.investpower.com. New investors can obtain information on the Web site or by calling 877-322-4941 or 718-921-8200.

Terminology

The term Air Products and Chemicals, Inc., as used in this Report, refers solely to the Delaware corporation of that name. The use of such terms as Air Products, Company, division, organization, we, us, our and its, when referring to either Air Products and Chemicals, Inc. and its consolidated subsidiaries or to its subsidiaries and affiliates, either individually or collectively, is only for convenience and is not intended to describe legal relationships. Significant subsidiaries are listed as an exhibit to the Form 10-K Report filed by Air Products and Chemicals, Inc. with the Securities and Exchange Commission. Groups, divisions or other business segments of Air Products and Chemicals, Inc. described in this Report are not corporate entities.

Annual Certifications

The most recent certifications by our Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to our Form 10-K. We have also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303A.12(a) of the New York Stock Exchange Listed Company Manual.

Additional Information

The forward-looking statements contained in this Report are qualified by reference to the section entitled "Forward-Looking Statements" on page 31 of the Financials section.

Acknowledgments

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BOARD OF DIRECTORS



John E. McGlade Chairman, President and Chief Executive Officer of Air Products. Director since 2007.



Ursula O. Fairbairn President and Chief Executive Officer of Fairbairn Group, LLC. Director since 1998.



Margaret G. McGlynn President, Global Vaccine and Infectious Diseases Division of Merck & Co., Inc. Director since 2005.



Mario L. Baeza
Founder and Controlling
Shareholder of Baeza &
Co. and Founder and
Executive Chairman of
V-Me Media, Inc.
Director since 1999.



W. Douglas Ford Retired Chief Executive, Refining and Marketing, of BP Amoco plc. Director since 2003.



Charles H. Noski
Retired Vice Chairman of
AT&T Corporation and
former Corporate Vice
President and Chief Financial
Officer of Northrop Grumman.
Director since 2005.



William L. Davis, III Retired Chairman, President and Chief Executive Officer of RR Donnelley. Director since 2005.



Edward E. Hagenlocker (Presiding Director) Former Vice Chairman of Ford Motor Company and former Chairman of Visteon Automotive Systems. Director since 1997.



Lawrence S. Smith Former Chief Financial Officer of Comcast Corporation. Director since 2004.



Michael J. Donahue Former Group Executive Vice President and Chief Operating Officer of BearingPoint, Inc. Director since 2001.



Evert HenkesRetired Chief Executive
Officer of Shell Chemicals Ltd.
Director since 2006.

CORPORATE EXECUTIVE COMMITTEE



John E. McGlade Chairman, President and Chief Executive Officer.



Paul E. Huck Senior Vice President and Chief Financial Officer.



Lynn C. Minella
Senior Vice President—
Human Resources and
Communications.



Robert D. Dixon Senior Vice President and General Manager— Merchant Gases.



Stephen J. Jones Senior Vice President, General Counsel and Secretary.



Scott A. Sherman Senior Vice President and General Manager— Tonnage Gases, Equipment and Energy.



Michael F. Hilton
Senior Vice President
and General Manager—
Electronics and
Performance Materials.



John W. Marsland Vice President— Business Services.

For more information about Corporate Governance practices at Air Products, visit our Corporate Responsibility Web site at www.airproducts.com/responsibility.

Investor Relations Office

tell me more www.airproducts.com