Financial Calendar 2005

> 2004 Annual Results
Wednesday, March 30, 2005

> 1st Quarter 2005 Results
Tuesday, May 3, 2005

> 2nd Quarter 2005 (1st Half Year) Results
Tuesday, August 2, 2005

> 3rd Quarter 2005 (9-Months) Results
Tuesday, November 8, 2005

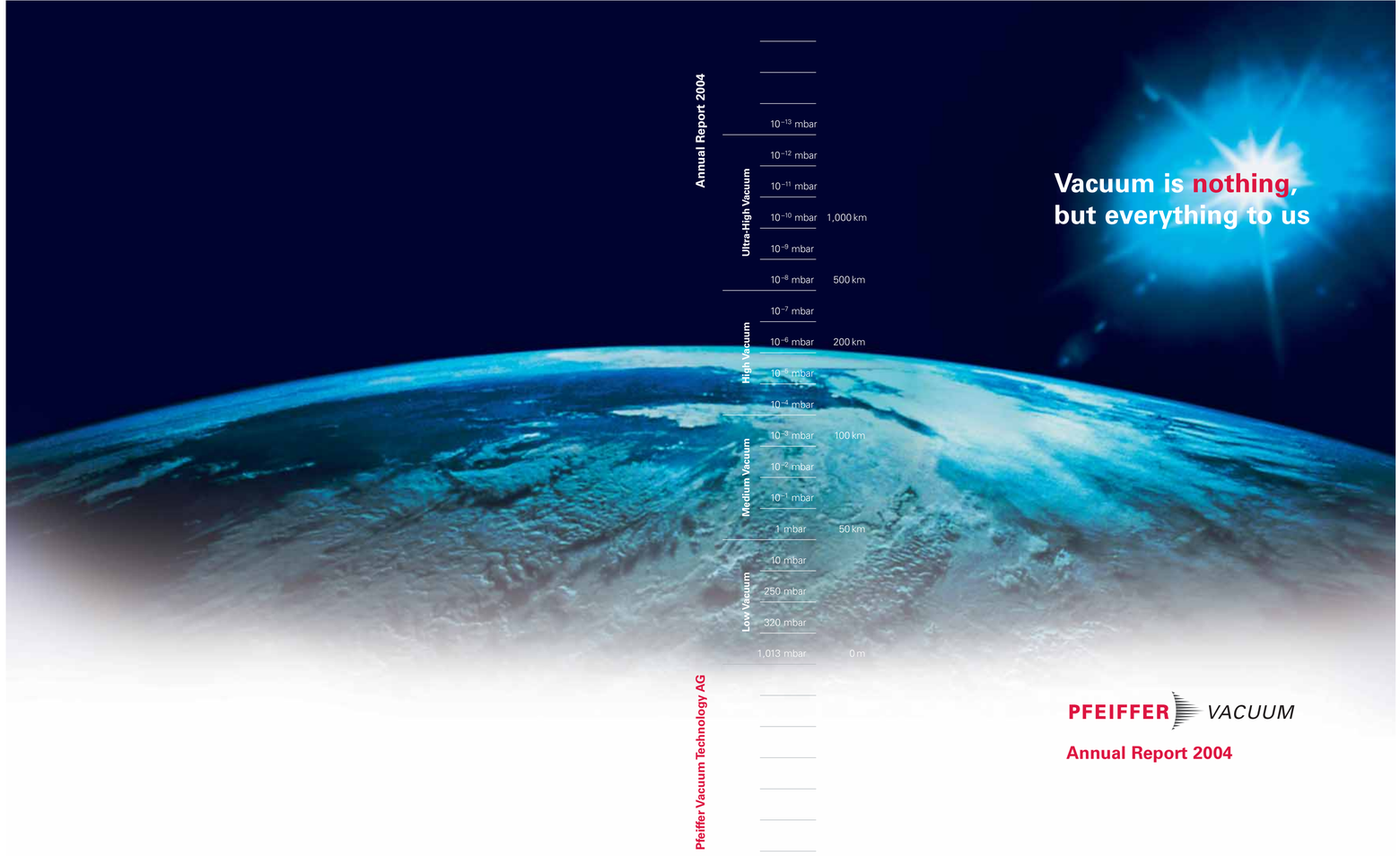
> Annual Shareholders Meeting
Wednesday, June 8, 2005, 2:00 P.M.,
Wetzlar Municipal Hall

Contacts

Investor Relations
Gudrun Geissler
Berliner Strasse 43
35614 Asslar
Germany
Phone: +49 6441 802-314
Fax: +49 6441 802-365
Gudrun.Geissler@pfeiffer-vacuum.de
www.pfeiffer-vacuum.net

Investor Relations in the United States
Pfeiffer Vacuum Inc.
Michael Monroe
24 Trafalgar Square
Nashua, NH 03063-1988 U.S.A.
Phone: +1 603 578-6500
Fax: +1 603 578-6550
Mike.Monroe@pfeiffer-vacuum.com
www.pfeiffer-vacuum.net

Public Relations
Sabine Trylat
Berliner Strasse 43
35614 Asslar
Germany
Phone: +49 6441 802-169
Fax: +49 6441 802-883
Presse@pfeiffer-vacuum.de
www.pfeiffer-vacuum.net



Vacuum is nothing, but everything to us

PFEIFFER VACUUM

Annual Report 2004

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Key Numbers

Net sales (in € millions)

2000	184.7
2001	170.1
2002	150.9
2003	144.0
2004	**156.2**

EBIT margin (in %)

2000	19.2
2001	16.6
2002	14.0
2003	13.5
2004	**11.6**

Income before tax (in € millions)

2000	34.1
2001	29.4
2002	24.8
2003	23.2
2004	**19.6**

Earnings per share (in €)

2000	2.24
2001	2.16
2002	1.99
2003	1.46
2004	**1.34**

Return on equity (in %)

2000	28.4
2001	22.6
2002	19.0
2003	13.4
2004	**11.7**

Equity ratio (in %)

2000	47.4
2001	55.4
2002	59.5
2003	79.3
2004	**79.3**

Capital expenditures (in € millions)

2000	13.7
2001	9.1
2002	2.6
2003	1.9
2004	**3.4**

Workforce (December 31)

2000	800
2001	793
2002	811
2003	761
2004	**745**

		2004	2003	Change
Sales				
Total sales	K €	156,222	144,018	+ 8.5 %
Germany	K €	46,962	40,368	+ 16.3 %
Other countries	K €	109,260	103,650	+ 5.4 %
Operating profit	K €	18,085	19,478	– 7.2 %
Net income	K €	11,626	12,746	– 8.8 %
Return on sales	%	7.4	8.9	
Operating cash flow	K €	26,310	– 13,446	– 195.7 %
Balance sheet				
Total liabilities and shareholders' equity	K €	125,233	119,780	+ 4.6 %
Cash and cash equivalents	K €	44,986	29,432	+ 52.8 %
Number of shares		8,790,600	8,790,600	0 %
Shareholders' equity	K €	99,355	95,037	+ 4.5 %
Equity ratio	%	79.3	79.3	
Return on equity	%	11.7	13.4	
Capital expenditures	K €	3,400	1,917	+ 77.4 %
Workforce				
Workforce (average)		750	777	– 27
Germany		566	587	– 21
Other countries		184	190	– 6
Personnel cost	K €	45,918	47,098	– 2.5 %
Per employee	K €	61	61	0 %
Sales per employee	K €	208	185	+ 12.4 %
Per share				
Earnings	€	1.34	1.46	– 8.2 %
Dividend	€	0.90	0.70	+ 28.6 %
Base	€	0.40	0.40	0 %
Bonus	€	0.50	0.30	+ 66.7 %

K € = thousands of euros

Financial Glossary

In our Financial Glossary you'll find formulas for calculating the key numbers and ratios, as well as definitions of financial terms.

Financial Glossary

Cash and cash equivalents
Bottom line in statement of cash flow/total liquid assets

Cash flow from investment/divestiture activities
Net cash used for/provided from investments/divestitures

Cash flow from operating activities
Net cash used/provided, not influenced by investment, divestiture or financial activities

Corporate governance
Responsible corporate management and supervision with a view to long-term economic value added (EVA)

Current assets ratio
Current Assets : Current Liabilities x 100

Dividend yield
Dividend : Trading Price x 100

Equity ratio
Shareholders' Equity : Balance Sheet Total x 100
(The higher the ratio, the lower the debt level)

Free-float
Broadly held shares

Gross domestic product (GDP)
Value of economic performance stemming from the domestic production of goods and services during the reporting period

Gross profit
Net sales less cost of sales

Market capitalization
Number of Shares x Trading Price

Operating profit (EBIT)
Earnings before interest and taxes

Operating profit margin (EBIT margin)
Operating Profit : Net Sales x 100
(The higher the percentage, the higher the profitability)

Research & Development expense ratio (R & D ratio)
R & D Expense : Net Sales x 100

Return on equity
Net Income : Shareholders' Equity x 100

Vacuum. What is it? Since the days of antiquity, philosophers and natural scientists have been grappling with the debate about the nature of empty space: Is empty space filled with matter or is it devoid of matter? The very beginning of the dispute about "nothing" found the two Greek thinkers Epicurus (341 – 271 B.C.) and Aristotle (384 – 322 B.C.) in opposite camps: Epicurus was a proponent of the atomic theory, which holds that only one thing can exist between the smallest particles of matter: Nothing. Aristotle, on the other hand, denied the existence of emptiness, because "nature creates nothing without a purpose." Convinced of his opinions, he repeatedly found new arguments to prove the absurdity of the concept of any kind of vacuum. Aristotle discovered, for example, that the heavier a stone the faster it would fall, and the more resistance offered by the medium – usually air or water – the slower it would fall. The logician viewed this as the crucial indication that a vacuum simply cannot exist: How else should the stone "know" how fast it should fall? The Aristotelian view survived nearly 2,000 years. The Church, too, held to this paradigm: Anyone who doubted the "horror vacui" – nature's abhorrence of emptiness – or who dared to experiment with vacuum risked falling victim to the Inquisition. In the 17th century, for example, several natural researchers courted death when they attempted to produce a vacuum. One of them was Evangelista Torricelli (1608 – 1647), a student of Galileo who succeeded in making the breakthrough. In 1643, he conducted the following experiment: He sealed a glass cylinder at one end and filled it completely with mercury. When he then placed the glass cylinder open end downward into a bowl filled with the same metal, the silvery column sank a bit. Regardless of the length he selected for the cylinder, the liquid metal always leveled out at a height of approximately 760 millimeters. Above this mercury level was nothing but empty space: This marked the first time that a vacuum had been produced in an experiment, which came to be called Torricelli's vacuum.

Vacuum in the mind? The old discussion about "nothing" broke out again. "If a vacuum exists anywhere, then only in Torricelli's mind," scolded French philosopher René Descartes (1596 – 1650). In 1648, meanwhile, physicist and religious philosopher Blaise Pascal (1623 – 1662) supplied further proof of Torricelli's interpretation. If Torricelli is correct – assumed Pascal – then the pressure the air exerts on the mercury in the bowl must decline as altitude increases. Simply as a result of the lower weight of the layer of air above it. The column of mercury in the cylinder should sink.

The proof comes at the summit Pascal asked his brother-in-law in the small French mountain town of Clermont-Ferrand to repeat Torricelli's experiment, first down in the town and then at the summit of nearby Mount Puy de Dôme, at an altitude of 1,465 meters. And, in fact, the column of mercury was 85 millimeters lower at the summit of the mountain than in the valley. This series of experiments led the horror vacui dogma ad absurdum – and marked the discovery of the barometer. At the same time, Otto von Guericke (1602 – 1686) of Magdeburg used hand fire pumps and valve flaps to build the first air pumps. Guericke, too, was deeply moved by this "nothing." Yet his research into the existence of empty space was not inspired by the theory of atoms, but by astronomy. "What might space possibly be? After all, it envelops everything and affords it a place to exist and be. Is it some kind of fiery heavenly matter, solid? Or is it a transparent quintessence? Or is it ultimately that which is continually denied, empty space devoid of all matter?" Guericke wanted to produce an airless space in order to prove that space is empty. Guericke's vacuum experiments were initially fraught with all sorts of technical difficulties, but around 1650 he succeeded in evidencing vacuum.

Magdeburg hemispheres The climax was his spectacular experiment with the "Magdeburg hemispheres," which he showed in 1663 at the court of Elector Friedrich Wilhelm the Great in Berlin: Using an air pump, Guericke pressed two copper hemispheres together by pumping almost all the air out of the space between them. Even two eight-horse teams were unable to separate the "Magdeburg hemispheres." Amazingly, they were held together only by air – or to be more correct: By the absence of air, i.e. the vacuum between them.

Discoveries from "nothing" Otto von Guericke's studies of vacuum not only led to a new way of viewing the world, they also paved the way for any number of practical applications. Guericke is considered to be one of the pioneers of weather prediction. Using a barometer, the "Magdeburg weatherman," he endeavored to draw conclusions about the weather on the basis of fluctuations in atmospheric pressure and changes in air temperature. In 1690, Denis Papin built a vacuum-powered engine, the forerunner of Watt's steam engine. Whether it's a matter of developing fluorescent tubes and incandescent lamps, fabricating chips, producing X-rays and TV screens or such everyday things as thermos bottles or freeze-dried coffee – the modern world would be much emptier without vacuum.

Yet even today, there has been no end to the eternal dispute; a new question arose: Is an airless space truly a totally empty space? Modern quantum physics is pointing the discussion in a new direction: While it does not doubt the existence of vacuum, it has found that a vacuum is anything but empty: Vacuums swarm with virtual particles that are incessantly being created, only to disappear again after just a few trillionths of a second. Vacuum is alive!

Maja Bilic (www.lexi-tv.de)

At a Glance

Caspar Greitemann (44) *Pfeiffer Vacuum Nederland, service technician, with the Company for the past 21 years*

Christoph Kollmann (22) *Pfeiffer Vacuum Austria, service technician, with the Company for the past 5 months*

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The Year 2004

"Turbo Office" project continues

A project aimed at enhancing the quality of organizational processes in the administrative departments by benchmarking them against those at other German industrial companies.

Outstanding customer scores in audits

Very good rankings in audits of key customers from the analytical and semiconductor industries.

Analytica trade show

Pfeiffer Vacuum exhibits at the world's largest trade show for the analytical industry in Munich.

January | **February** | **March** | **April** | **May** | **June**

Service operations expanded

Expanding the Company's global service presence in over 40 locations. The only manufacturer of turbopumps worldwide to perform bearing changes on site.

New Chief Financial Officer Manfred Bender

Supervisory Board appoints Manfred Bender as the new Chief Financial Officer of Pfeiffer Vacuum Technology AG.

Harmonious 2004 Annual Shareholders Meeting

Regular Annual Shareholders Meeting on June 16, 2004, in Wetzlar attended by about 400 shareholders as well as representatives from shareholder associations and banks; 45.7 % presence.

Semicon West trade show

Pfeiffer Vacuum showcases its products at Semicon West in San Francisco, the world's largest and most important semiconductor trade show.

Positive development in Asia

Sales and service meeting in Korea. Activities in China broadened.

New high-performance turbopumps

Market launch of the new TPH 1201, TPH 1501 and TPH 1801 high-performance turbopumps for process technology.

July | August | September | October | November | December

New XtraDry™ dry pump

Market launch of the new XtraDry™ – a dry pump with a broad range of applications for the analytical and medical technology sectors.

Investor conference in New York + roadshows in the U.S.A.

Corporate presentation at Deutsche Börse's German Small and Mid Cap Investment Conference in New York. Followed by a roadshow that went from New York to Denver and Chicago and concluded in Boston.

Coating segment expanded

Framework agreements signed with key customers from the coating industry.

Foreword from the Chief Executive Officer – Frankly Speaking –

Dear shareholders and readers,

All in all, 2004 was a good year. We increased sales by 8.5 % from € 144.0 to € 156.2 million and earned before-tax income of € 19.6 million and net income of € 11.6 million. Only few companies can offer these kinds of numbers. At first glance, though, our returns are lower than the previous year's levels. At 7.4 %, the return on sales was down from the previous year's level of 8.9 %.

Now it would be easy to blame this on the political and economic environment. But that's not the way we do things. True to our motto "Vacuum is nothing, but everything to us!," as entrepreneurs we are constantly working to expand our strengths and eliminate our weaknesses. Our strengths undoubtedly consist of our technology, our global presence, our cost-consciousness, our enthusiasm and commitment and our determination. We take great pains to assure that we are not dependent upon any single product, any single market segment, any single region or any single customer. Should there be problems with sales or a product, in a market segment or in a region, we then have alternative courses of action available to us.

Chief Executive Officer Wolfgang Dondorf

So why did our returns nevertheless decline? Four years ago, we ventured into the field of DVD systems. Two acquisitions were intended to aid us in building a position in the DVD production machinery segment. In spite of a tremendous effort, we never did reach the profitability zone. In early 2005, we drew the consequences and divested this DVD business in order to avoid any further impact on our existing, highly successful core business. Virtually all of the financial ramifications have been fully incorporated in the 2004 financial statements – and that was the only reason for the lower returns! Without our DVD business, the return on sales would have been significantly higher, amounting to 11.0 %.

What holds true in this connection is (as Lao-Tse might have said):
"Being successful is like rowing against the current – you drift backward as soon as you stop."

Much of the impetus naturally comes from the Management Board, but we're proud to have an outstanding team of employees who share our high standards of ethics, integrity, seriousness, enthusiasm and commitment. Only a team like this, which embraces the interests of our customers, shareholders and employees, can enjoy sustained success.

The continued investments we have made in markets, products, people and machinery over the years – even during times in which other companies were merely putting on the cost brakes in a panic – are paying off. We are winning new customers that we have been courting for years, and we are expanding our business with existing customers and new products.

Things certainly far from rosy, but the Pfeiffer Vacuum team views the coming years with a certain degree of optimism!

A company cannot constantly grow – nor should it. But it must constantly improve!

And that we're going to strive for this ambitiously and with our eyes wide open, but with a relaxed and cheerful spirit, is the promise from

Yours truly,

Wolfgang Dondorf

Report of the Supervisory Board

Dear Shareholders,

The 2004 fiscal year was characterized by a moderate recovery of the economic environment, although it was unable to live up to expectations. In fact, it would appear that the upswing in the semiconductor market is already taking on cloudier contours again. However this had only a marginal impact on the Company's results, as the Company has been increasingly focusing on markets that are not subject to the cyclical trend of semiconductor business. In fiscal 2004, the Company was able to significantly improve in its core business of "vacuum pumps." As in previous years, the DVD equipment sector remained unsatisfactory, and a solution was rigorously found for it.

Significant improvement in the core business of "vacuum pumps"

> Supervisory Board meetings and content

In four meetings during the 2004 fiscal year, the Supervisory Board informed itself about the current position of the Company and the corporate group, and conducted intensive discussions with the Management Board. The Supervisory Board meetings were conducted on March 9, June 16, August 2 and November 1, all of them in Asslar. Dr. Oltmanns, Professor Kügler, Mr. Anderson and Mr. Timmerbeil attended the meeting on August 2 over the telephone. In addition to the information provided at its regular meetings, all members of the Supervisory Board received detailed monthly and quarterly reports on the Company's position, with the Chairman of the Supervisory Board additionally being provided with the minutes of all Management Board meetings. Aside from the regular meetings of the Supervisory Board, its Chairman was constantly kept abreast of all major business matters through discussions with the Management Board.

> Duties of the Supervisory Board

The Supervisory Board's Audit Committee maintained regular contact with the independent auditor, discussing with him and decided upon the course of the audit, the main focuses of the audit and particular questions relating to the audit. Those measures requiring the consent of the Supervisory Board were deliberated and decided upon at its meetings. This included the appointment of Manfred Bender as the new Chief Financial Officer to replace outgoing Amandus Waterkamp, as well as the measures required for divesting the Company's DVD business. Further focuses of the Supervisory Board meetings included the sales offensive in the United States, the issue of treasury stock acquisition, the development of the Pfeiffer Vacuum Trust e. V. registered association, to which the Company's pension obligations had been divested at the end of the previous year, as well as

the "Turbo Office" project, from which the motivation and performance of the employees have benefited. The Supervisory Board complied with all of the obligations vested in it under applicable legislation and the Company's articles of incorporation and bylaws, taking into consideration the particular requirements of the German Control and Transparency Act of 1998 ("KonTraG"), as well as the German Publication Transparency Act of 2002 ("TransPublG"), and diligently and fully supervised the management of the Company.

> Risk management

The requirements with respect to risk management mandated under the German Control and Transparency Act were discussed intensively together with the Management Board. The Supervisory Board repeatedly satisfied itself that sufficient insurance coverage is in force for insurable risks and that operating, financial and contract risks are being monitored through organizational processes and approval procedures. A detailed reporting system exists for the Company and the corporate group, and is subjected to ongoing review, update and development. All employees in the operating units are sensitized to potential risks and are instructed to conduct appropriate reporting.

> Corporate governance

As in the year before, the Supervisory Board discussed the German Corporate Governance Code ("DCGK") in detail. The Supervisory Board continues to be in agreement with the Management Board that the three variances from the German Corporate Governance Code, i.e. in connection with a deductible for the Company's liability insurance, in connection with individualization of the compensation paid to members of the Management and Supervisory Boards and in connection with the structure of the compensation paid to members of the Supervisory Board, are justified and meaningful. The statement of compliance pursuant to § 161 of the German Stock Corporation Act ("AktG") was able to be submitted by the Management and Supervisory Board sufficiently in advance of the close of the fiscal year with the above provisos. In connection with good corporate governance, the Supervisory Board also dealt in detail with its own efficiency, with the review producing positive overall results. At the meetings of the Supervisory Board and in individual discussions, the Supervisory and Management Boards deliberated at length regarding the Company's strategic alignment and planning, with the development of Pfeiffer Vacuum Systems GmbH, in particular, being discussed in detail. The impact of the development of the economy was also the subject of intensive discussions between the Management and Supervisory Boards. The budget for the 2005 fiscal year was discussed and adopted.

Report of the Supervisory Board

> Audit

Unqualified opinion for Annual Financial Statements, Management's Discussion and Analysis and Consolidated Financial Statements

In accordance with the resolution adopted by the Annual Shareholders Meeting on June 16, 2004, Ernst & Young AG, Wirtschaftsprüfungsgesellschaft, of Eschborn/Frankfurt am Main, was commissioned to audit the Annual Financial Statements of the Company, the Company's Consolidated Financial Statements, which are presented in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP") and the financial statements of its subsidiaries where prescribed by law. Pursuant to § 292a of the German Commercial Code ("HGB"), consolidated financial statements according to the rules of the German Commercial Code were not prepared. The audit focuses defined by the Audit Committee and the independent auditor included the Company's DVD business. The Annual Financial Statements, Management's Discussion and Analysis, as well as the Consolidated Financial Statements presented in accordance with U.S. GAAP for the 2004 fiscal year, all of which were prepared by the Management Board, were audited by the independent auditor and received his unqualified opinion.

> Annual Financial Statements

The Annual Financial Statements, Management's Discussion and Analysis, as well as the audit reports from the independent auditor, were submitted to all members of the Supervisory Board in a timely fashion. They were discussed in detail at the Audit Committee meeting relating to the financial statements as well as at the Supervisory Board meeting relating to the financial statements on March 14, 2005. The independent auditor attended both meetings, reported on the major findings of his audit and was available to answer additional questions from the Supervisory Board. On the basis of its own thorough review, the Supervisory Board concurs with the results of the audit conducted by the independent auditor. The Supervisory Board approved the financial statements, which were thus formally adopted. The Supervisory Board discussed in detail with the Management Board its proposal regarding the distribution of a dividend and concurs with the Management Board's proposal regarding appropriation of the Company's retained earnings.

> Expression of thanks

The Supervisory Board wishes to express its thanks to the members of the Management Board, to the Employee Council and the entire staff of the corporate group for their successful work in fiscal 2004.

Asslar, March 2005

Supervisory Board

Pfeiffer Vacuum Profile

Headquarters:	Asslar, Germany
Established:	1890
Purpose of the Company:	To develop, manufacture and market components and systems for vacuum generation, measurement and analysis
Manufacturing site:	Asslar, Germany
Workforce:	745 people worldwide
Operational floor space:	Approximately 80,000 m^2
Sales and service:	13 subsidiaries and over 20 agencies worldwide
Export ratio:	70 %
Quality management:	Certified under ISO 9001:2000
Environmental management:	Certified under ISO 14001:1996
Stock exchange listings:	
New York Stock Exchange:	1996, as the first medium size German enterprise
Deutsche Börse:	1998, second listing on the Neuer Markt Stock Exchange, today the Deutsche Börse Prime Standard/TecDAX
Accounting:	U.S. accounting principles (U.S. GAAP)
Capital stock:	K € 22,504
Number of shares:	8,790,600 no-par shares
Free-float:	100 %
Cash and cash equivalents:	€ 45.0 million
Equity ratio:	79.3 %

Management and Supervisory Boards

> General

Prompted by corporate bankruptcies, illegal acts on the Neuer Markt Stock Exchange and a very few instances of insatiable greed on the part of top executives, the call for greater corporate control and transparency is valid and understandable. However these irresponsible managers, who have no business serving as executives, do represent a minority. It should be clearly stressed that the vast majority of corporate leaders and management and supervisory board members take their responsibility toward their shareholders, customers and employees very seriously.

In order to provide the general public with a high level of transparency with respect to the Company's position, we at Pfeiffer Vacuum publish the following reports in German and English:

- Annual reports for the German and American stock exchange regulatory authorities
- Quarterly reports for the German and American stock exchange regulatory authorities
- The Pfeiffer Vacuum Annual Report
- Ad-hoc press releases in connection with events of relevance for stock trading

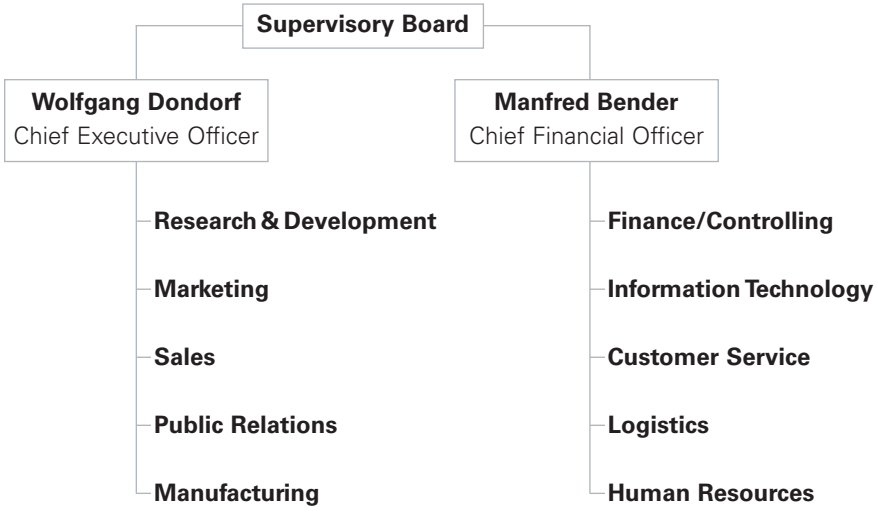
In addition, the Management Board informs shareholders and other interested parties within the context of numerous roadshows in Germany and other countries. Many analysts and fund managers visit us in Asslar to obtain a first-hand picture of the Company's development.

To objectivize the corporate governance discussion, we would like to inform you below in greater depth about the details of the functions of the Company's Management and Supervisory Boards.

> Management Board

Chief Executive Officer Wolfgang Dondorf (at right) and Chief Financial Officer Manfred Bender (at left)

The Management Board consists of two individuals: Diplom-Ingenieur Wolfgang Dondorf (Chief Executive Officer) and Diplom-Betriebswirt Manfred Bender (Chief Financial Officer). These two men are responsible for the Company's further development and strategy. Moreover, they are highly involved in the Company's day-to-day activities and bear operational responsibility:



- The members of the Management Board work exclusively for Pfeiffer Vacuum and do not hold seats on any supervisory boards.
- The four-eyes principle applies:
  Major decisions are always made jointly. Personal expenditures, such as travel expenses, et cetera, must always be approved by the other member of the Management Board.
- In addition to collaborating closely with one another and mutually informing one another on a daily basis, Management Board meetings are conducted every two weeks. Minutes of these meetings are kept, with a copy going to the Chairman of the Supervisory Board.
- The compensation paid to the members of the Management Board typically consists of a fixed element and a variable element. The fixed element remains constant for years.
- The members of the Management Board do not receive any stock options.

Management and Supervisory Boards

The Supervisory Board's Management Board Committee decides totally independently and without influence as to whether the members of the Management Board receive a variable compensation element in addition to the fixed element. The Supervisory Board currently uses the following procedure in stipulating the variable salary element (which is closely linked to the Management Board member's performance and the Company's success): The percentage change in sales and income before and after taxes relative to the year before is determined. The variable element from the previous year is then multiplied by this combined factor.

No donations are made to political parties. Modest donations are made only to local facilities, with the focus on education, social and sport sponsoring.

Liability insurance coverage is in force for the members of the Management and Supervisory Boards. In contrast to the way the subject is sometimes portrayed in the general public, this insurance coverage does not represent a free pass for the members of these bodies to act negligently and irresponsibly, but is intended to ensure that the injured parties will be indemnified in the event of wrongdoing on the part of members of the Management and Supervisory Boards.

In principle, having members of the Management and Supervisory Boards pay a deductible in the event of a claim for damages, i.e. having them make a personal contribution, is the right approach. However – as in the case of any other type of insurance coverage, a deductible should lower the premium to be paid by the Company; yet the insurance companies are presently still refusing to do so.

> Supervisory Board

The Supervisory Board consists of six members.

Dr. Michael Oltmanns (Chairman)
Attorney at Law and Tax Advisor, Stuttgart

Prof. Dr. Klaus-Jürgen Kügler (Vice Chairman)
Professor at the Giessen-Friedberg Technical University

Michael Anderson
Investment Banker, New York (U.S.A.)

Edgar Keller
Commercial Staff Member, Solms, Employee Representative

Günter Schneider
Chairman of the Employee Council, Leun, Employee Representative

Götz Timmerbeil (Chairman of the Audit Committee)
Certified Public Accountant and Tax Advisor, Gummersbach

From left to right:
Michael Anderson
Prof. Dr. Klaus-Jürgen Kügler
Dr. Michael Oltmanns
Götz Timmerbeil
Edgar Keller
Günter Schneider

Management and Supervisory Boards

- Fixed compensation is paid to the members of the Supervisory Board.
- None of the six members of the Supervisory Board are former members of the Management Board.
- The four members from outside the Company are entirely independent, i.e. they are not affiliated with the Company in any way.
- Should a member of the Supervisory Board render services to the Company, for example as an attorney, which is the exception to the rule, this must be approved by the Supervisory Board.
- The two employee representatives are internal employees of the Company, i.e. they are not outside trade union representatives. Günter Schneider is the Chairman of the Employee Council and Edgar Keller works in Customer Service. This assures that these individuals possess a high level of expertise and a detailed knowledge of the Company.
- All meetings of the Supervisory Board always begin in the absence of the members of the Management Board, who are later called in.
- Outside the formal meetings, the Management Board provides the following reports to the Supervisory Board each month:
  – Sales, order intake and order on hand of the Group
  – Statements of income of each Company worldwide
  – Budget variances
  – Workforce development
  – Cash planning
  – Assessment of the Company's current situation by the Management Board
  In addition, the members of the Management and Supervisory Boards maintain regular personal and telephone contact when major matters have to be decided or to provide information about new developments.

- The Supervisory Board has formed three committees:
  – Administration Committee
  – Management Board Committee
  – Audit Committee
  The Administration Committee deals, for example, with such issues as "consent to contracts with members of the Supervisory Board." The Management Board Committee is responsible for personnel matters relating to the members of the Management Board. The Audit Committee works closely with the auditors and coordinates the focuses of the audit. The auditors regularly inform the Audit Committee about the course of the audit.

- The primary issue on the agenda at the Supervisory Board meeting in March of each year is to formally adopt the financial statements. The audit reports are submitted to all members of the Supervisory Board 14 days in advance. Both the auditors as well as all members of the Supervisory and Management Boards attend this meeting. The auditors are available to all members of the Supervisory Board to answer any questions they may have. The Supervisory Board then formally adopts the financial statements.

Exercising the care of a prudent manager, as defined in § 93 of the German Stock Corporation Act, serves as the guideline for the actions of everyone involved. Unfortunately, no amount of laws and codes is able to prevent inappropriate actions on the part of those who have no respect for the laws. However the law-abiding, dependable and honest members of supervisory and management boards – and they are the ones who make up the vast majority! – are subjected to excessive burdens by a constant parade of often hastily promulgated new legislation.

It is important to us to provide you with a comprehensive picture of
– The work performed by the Management Board
– The work performed by the Supervisory Board
– The independence of the Supervisory Board
– The collaboration between the Supervisory and Management Boards
– Our efforts to provide transparency

Our shareholders have invested in a company that is fully cognizant of its responsibilities.

Ultra-High Vacuum
High Vacuum
Medium Vacuum
Low Vacuum
10^{-13} mbar
10^{-12} mbar
10^{-11} mbar
10^{-10} mbar 1,000 km
10^{-9} mbar
10^{-8} mbar 500 km
10^{-7} mbar
10^{-6} mbar 200 km
10^{-5} mbar
10^{-4} mbar
10^{-3} mbar 100 km
10^{-2} mbar
10^{-1} mbar
1 mbar 50 km
10 mbar
250 mbar
320 mbar
Balloon
1,013 mbar 0 m

The Troposphere

It ranges from ground level to an altitude of around 8 km at the poles and approximately 17 km at the equator. This is the layer of the atmosphere in which weather is formed by ascending warm gases and descending cold gases. 90 % of all of the air and virtually 100 % of all of the water vapor in the atmosphere is located in the troposphere.

Assuming the standard atmospheric pressure of 1,013 mbar, low vacuum of up to 10 mbar begins here.

Pfeiffer Vacuum Share Performance

The positive development of the trading prices of our shares documents the confidence of our investors in the Company's long-term strength. We are paying a dividend – for the seventh year in a row.

Pfeiffer Vacuum shares have been traded in New York since July 1996 and in Frankfurt since April 1998.

> Deutsche Börse, Prime Standard, Frankfurt	
Stock Symbol:	**PFV**
> International Securities Identification Number:	**ISIN DE0006916604**
> Reuters Symbol:	**PV.DE**
> New York Stock Exchange, New York	
Stock Symbol:	**PV**
> International Securities Identification Number:	**ISIN US7170671025**
> Free-float as of December 31, 2004:	**100 %**

In the wake of difficult trading years, both investors and issuers had high hopes for the year 2004. The ongoing crisis in the Near East, skyrocketing oil prices and the persistent weakness of the U.S. dollar relative to the euro had a negative impact on the economy and kept trading prices from rising as high as had been hoped. Only at year end did the mood gradually begin to brighten.

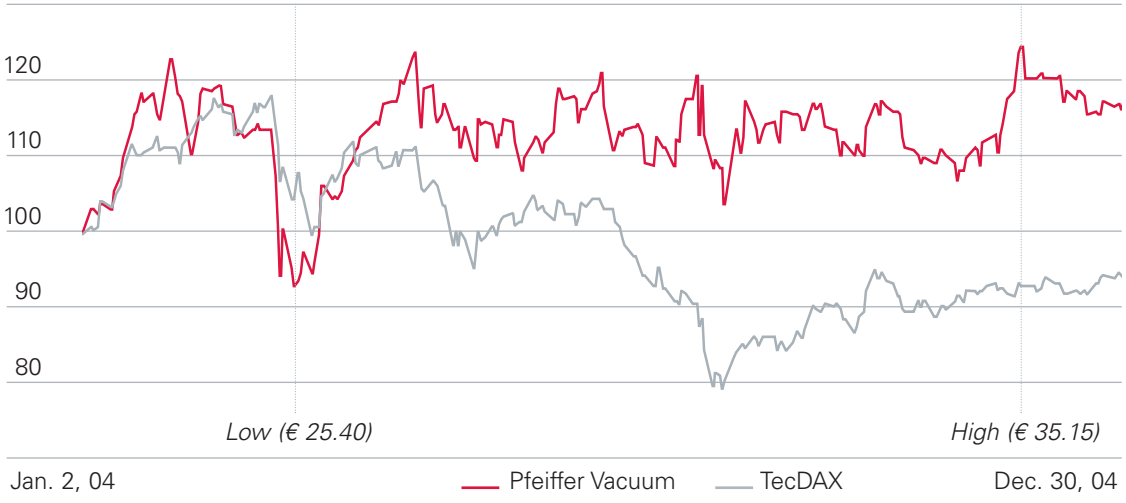
Pfeiffer Vacuum shares did well in this stock market environment.

> On the stock exchange in Frankfurt

Pfeiffer Vacuum shares began the year in Frankfurt at a trading price of € 28.08 on January 2, 2004. They reached their low for the year of € 25.40 on March 16, their high for the year of € 35.15 on November 25. At year-end, our shares were trading at € 33.00. Their average daily trading volume was 17,591 shares. The positive overall development of our share prices documents investor confidence in the Company's long-term strength.

The following graphic illustrates the positive performance of our shares by comparison with the TecDAX:

Share Price Development in % Pfeiffer Vacuum/TecDAX



While the TecDAX technology index was 6 % lower overall at year end than at the beginning of the year, Pfeiffer Vacuum shares advanced by 18 %. The Company numbers among the few TecDAX corporations that distribute a dividend to their shareholders. Pfeiffer Vacuum shares are also included in further Deutsche Börse indices, e.g. in the H-DAX, in the Mid Cap Market Index, in the C-DAX and in the Technology All Share.

In August 2004, we commissioned a program to identify our institutional shareholders. The most important finding produced by this study is that over 30 % of our shares are held by American mutual and pension funds.

100 % of our shares are broadly held

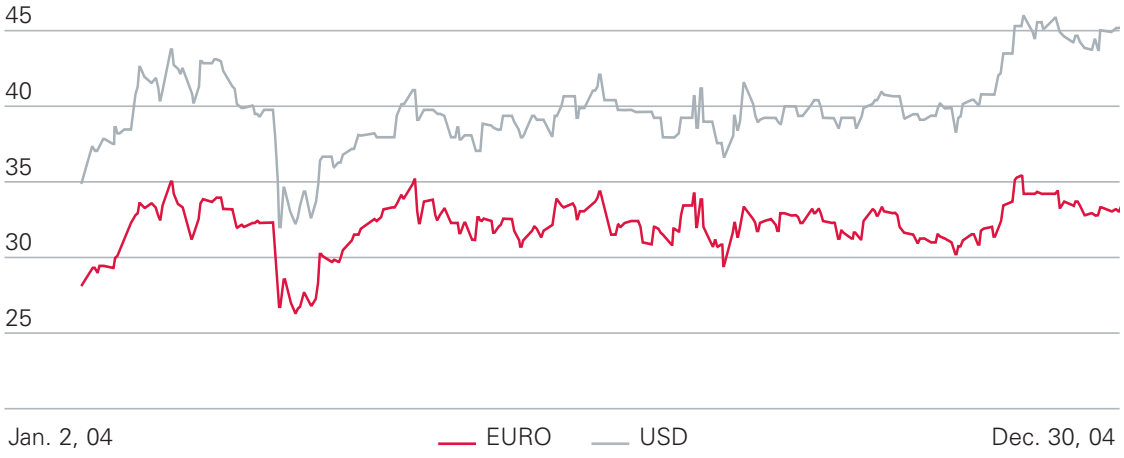
On November 12, 2004, Chicago-based Harris Associates L.P. informed us that it had crossed the 10 % reporting threshold with holdings of 10.16 % of our shares. However this notification does not have any influence on the Company's free-float position. Since we have neither legacy shareholders nor any other beneficial owners, 100 % of our shares are broadly held.

Pfeiffer Vacuum Share Performance

> On the New York Stock Exchange (NYSE)

The trading volume of Pfeiffer Vacuum ADRs on the New York Stock Exchange was significantly lower than on the Frankfurt exchange. Trading prices in New York generally paralleled developments in Frankfurt. Their high for the year of US$ 45.79 was reached on December 6, 2004, their low for the year of US$ 31.75 on March 11, 2004. Of the total of 8,790,600 shares in circulation, 1,055,625 ADRs were being traded in New York at year-end, representing 12.0 % of total shares (2003: 14.3 %). No single fund or individual investor held more than 5 % of the Company's ADRs in 2004.

Pfeiffer Vacuum Share Price Development in € on the Deutsche Börse and in US$ on the NYSE



American investors continue to display strong interest in Pfeiffer Vacuum. Chief Executive Officer Wolfgang Dondorf presented the Company at Deutsche Börse's German Small and Mid Cap Investment Conference in New York on October 17, 2004. The subsequent road show went from New York to Denver and Chicago, winding up in Boston. Various American investors visited us in Germany in 2004 in order to get a first-hand look at Pfeiffer Vacuum. Many American funds and investment houses are now buying our shares in Frankfurt, as trading volumes there are higher than in New York. Some American shareholders have been invested in Pfeiffer Vacuum since its initial public offering in New York in July 1996, and continue to have great confidence in the management and medium-term development of the Company with its sound financial footing.

> Proposed dividend

Dividend up sharply from the year before

Pfeiffer Vacuum succeeded in increasing its earnings in its core business of "vacuum pumps" during the past fiscal year and additionally possesses a high level of cash and cash equivalents. The Management and Supervisory Boards will propose to the Annual Shareholders Meeting that our shareholders participate in the Company's success in the form of a base dividend of € 0.40 and a bonus of € 0.50. The dividend will thus be significantly higher than the year before (2003: € 0.40 base dividend, € 0.30 bonus dividend). Pfeiffer Vacuum has now been making a dividend distribution for seven years in a row and is one of the highest-dividend issues in the TecDAX.

> Shareholders are customers too

Ongoing contact with our investors is naturally an important commitment for us. In 2004, we participated in six investor conferences in Germany and other countries. In connection with the announcement of our 2003 annual results, there was a financial press conference in March, as well as an analyst conference in Frankfurt that was attended by over 50 participants. In late November, we conducted a further analyst conference in connection with the German Equity Forum in Frankfurt, an event organized by Deutsche Börse.

At 18 roadshows (2003: 15) in all major financial centers in Europe and the United States, the members of the Management Board presented our business model and commented on the Company's opportunities and risks. Some 30 visits to the Company on the part of investors, as well as regular conference calls with analysts and investors, document our close contact with the financial world.

The regular Annual Shareholders Meeting on June 16, 2004, was attended by about 400 shareholders, representing a presence of 45.7 %. All resolutions carried with very high majorities. On the day of the Annual Shareholders Meeting, we traditionally invite our investors to visit our facility in order enable them to get a first-hand look at our Company. In 2004, many shareholders again took advantage of this opportunity.

A dedicated Investor Relations page on the Internet at www.pfeiffer-vacuum.net affords everyone an opportunity to inform themselves in detail about everything relating to Pfeiffer Vacuum shares, to download annual reports, quarterly numbers and press releases, or to sign up on an e-mail distribution list to receive future corporate news. An interactive version of the 2004 Annual Report is also available on the Internet.

Pfeiffer Vacuum Share Performance

In "Manager Magazin's" rankings of the best annual reports 2003, we again took second place in the TecDAX segment. Especially high marks went to our clear language and informative financial portion.

Pfeiffer Vacuum took third place in the TecDAX category in "Euro" magazine's first Corporate Governance Quality Award. What the jury reviewed, in addition to formal compliance with the recommendations and suggestions contained in the German Corporate Governance Code, was how corporate governance is being lived in actual practice by these corporations' management and supervisory boards, i.e. how they interact with the capital market. This includes the quality of their accounting, whether investor relations work is a top management priority and whether their management and supervisory boards draw strategic and personnel consequences from negative developments.

Over 20 analysts from Germany and other countries regularly follow our Company, assessing Pfeiffer Vacuum's current position and prospects in close contact with the Management Board and the Investor Relations Department. In 2004, the "buy" and "accumulate" recommendations predominated. This year, the analysts focused particularly on the Management Board's decisions in connection with the DVD line of business.

Pfeiffer Vacuum Share Highlights

		2004	2003	2002
Number of shares		8,790,600	8,790,600	8,790,600
Highest trading price *	€	35.15	30.49	41.80
Lowest trading price *	€	25.40	17.00	15.80
Trading price at year-end *	€	33.00	28.00	19.12
Market capitalization at year-end	millions €	290	246	168
Dividend per share	€	0.90	0.70	0.56
Base dividend	€	0.40	0.40	–
Bonus dividend	€	0.50	0.30	–
Dividend yield	%	2.7	2.5	2.9
Earnings per share	€	1.34	1.46	1.99

* Deutsche Börse

Group Structure

Pfeiffer Vacuum Technology AG
D-Asslar

Pfeiffer Vacuum GmbH D-Asslar 100.0 %

Pfeiffer Vacuum Holding B.V. NL-De Meern 100.0 %

Pfeiffer Vacuum Austria GmbH	A-Vienna	100.0 %
Pfeiffer Vacuum (Schweiz) AG	CH-Zurich	99.4 %
Pfeiffer Vacuum Systems GmbH	D-Asslar	100.0 %
Pfeiffer Vacuum France SAS	F-Buc	100.0 %
Pfeiffer Vacuum Ltd.	GB-Newport	100.0 %
Pfeiffer Vacuum Nederland B.V.	NL-De Meern	100.0 %
Pfeiffer Vacuum Scandinavia AB	S-Upplands Väsby	100.0 %
Pfeiffer Vacuum Inc.	USA-Nashua	100.0 %

Pfeiffer Vacuum Belgium N.V.	B-Temse	100.0 %
Pfeiffer Vacuum Italia S.p.A.	I-Rho	100.0 %
Pfeiffer Vacuum (India) Ltd.	IND-Secunderabad	73.0 %
Pfeiffer Vacuum Korea Ltd.	KR-Yoinin City, Kyungki-Do	75.5 %

Roland Sax (55) *Manager Customer Service, with the Company for the past 22 years*

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Product Portfolio

For more than 100 years, we have been setting milestones in vacuum technology with our products. Our extensive line of products and services ranges from individual components right through to complex vacuum systems.

Any number of high-tech products and articles that are used in daily life can only be manufactured in chambers in which a vacuum prevails that is comparable to the pressure conditions that exist in outer space. True to the motto "Vacuum is nothing, but everything to us!" we pride ourselves in finding the right vacuum technology solution for every customer and every application.

> Our products

Vacuum generation

Dry pumps
Rotary vane pumps
Turbopumps
Roots pumps

Vacuum measurement and analysis equipment

Vacuum gauges and controllers
Mass spectrometers
Leak detectors

Installation elements

Components
Valves

Vacuum systems

Coating and leak testing systems
Vacuum pumping stations

> Vacuum generation pumps

Different types of pumps are required for different pressure ranges. In the case of the low and medium vacuum ranges, these are primarily rotary vane and Roots pumps, as well as dry pumps. Turbomolecular pumps, or turbopumps for short, are needed for the high and ultra-high vacuum ranges.

Accounting for 38 % of total sales in 2004 (2003: 37 %), the Company's most important product is the **turbomolecular pump**. This class of pumps was invented at Pfeiffer nearly 50 years ago, and has since been steadily evolved. Pfeiffer Vacuum has since sold over 250,000 turbopumps worldwide.

Turbopumps for all applications in the high and ultra-high vacuum ranges of up to 10^{-11} mbar

Turbopumps generate vacuums in the high to ultra-high vacuum range of up to 10^{-11} mbar (this corresponds to the pressure conditions that prevail in deep space nearly 1,000 km above the earth). The turbopump rotor, whose elements are made from a special aluminum alloy – like aircraft turbines –, rotates inside the pump at speeds of up to 90,000 rotations per minute. This places the utmost demands on both manufacturing precision as well as the bearing systems for these rotors. Various bearing system versions can be provided, depending upon the application or customer need in question. In addition to maintenance- and vibration-free mag-lev bearings, a mechanical bearing system that incorporates ceramic precision bearings is also available for the highest demands.

Turbopumps are available in a wide range of sizes – from the world's smallest, the TPD 011 for the analytical industry, right through to large 3,000-liter pumps, which are primarily employed in the coating and semiconductor industries. Responding to market needs, we have developed small, compact turbopumps and have further optimized performance and reliability specifications.

Product Portfolio

Outstanding features of the Pfeiffer Vacuum CompactTurbo™ series are its unique rotor design incorporating a maintenance-free permanent bearing system on the high-vacuum side in combination with a ceramic ball bearing on the backing vacuum side. This so-called hybrid bearing system offers the longest service lives and highest reliability by comparison with competition products.

The MagneticTurbo™ series consists of high-performance turbopumps for all applications in the analytical, industrial and research sectors. These pumps are characterized by their fully mag-lev bearing systems, making them maintenance- and vibration-free. With the HiMag™ 2400, we have brought to market the world's first mag-lev turbopump to feature integral drive electronics. Its reliable, robust design affords dependable operation even in difficult applications thanks to integral security concepts. This pump is especially suitable for the semiconductor and coating industries.

Pfeiffer Vacuum also offers ready-to-run turbo pumping stations, such as the compact Turbo-Drag pumping stations for analytical applications and research & development. TurboCube™ pumping stations are modularly designed and operate on the "plug and play" principle. They can be easily adapted to suit the particular application in question; the controller is integrated in the unit and its functions can be operated by remote control if needed.

Turbopumps always require so-called **backing pumps** in order to compress the advanced gas against the atmosphere and expel it. Proven rotary vane or diaphragm pumps are employed as backing pumps. They cover the vacuum range from atmospheric pressure to a maximum of 10^{-3} mbar.

Our single- and two-stage rotary vane pumps offer volume flow rates of from 2.5 to 630 m^3/h. They are suitable for all applications in the low and medium vacuum ranges and can be employed as backing pumps for turbomolecular and Roots pumps.

The single-stage, oil-sealed **rotary vane pumps** in the UnoLine™ generate low vacuum with an ultimate pressure of up to 0.3 mbar. These robust, dependable and low-maintenance standalone pumps are employed in numerous fields in industry and research. As backing pumps for turbopumps (high-vacuum applications beginning at $< 10^{-4}$ mbar) and Roots pumps (for high volume flow rates in the high vacuum range of up to 10^{-3} mbar), they are integrated in pumping stations. These pumps can even be used under the most difficult conditions, such as in connection with high intake pressures and in cycle modes.

Compact, high-performance rotary vane pumps for all applications in the low and medium vacuum ranges of up to 10^{-3} mbar

The two-stage DuoLine™ rotary vane pumps cover all applications in the low and medium vacuum ranges of up to 10^{-3} mbar. These pumps afford reliable operation even in such critical industrial applications as curing, metallurgical processes or cast-resin plants – as either standalone pumps or in a Roots or turbo pumping station. The innovative drive concept in the M-Series (contactless, magnetically coupled drive) makes these pumps hermetically sealed and thus clean and environmentally compatible. There are no oil losses here of the type that occur in pumps with a customary radial shaft seal. Their magnetic coupling minimizes maintenance and results in considerable cost savings.

Complete line of Roots pumps for applications in the low and medium vacuum ranges of up to 10^{-3} mbar

Our **Roots pumps** are characterized by an optimum ratio between volume flow rate and size. The effect of these pumps is produced by the synchronized counter-rotation of two octagon-shaped rotors. The volume flow rates of the various pump sizes range from 250 to 25,000 m^3/h.

The standard Roots pumps in the so-called A-Series can be employed for a wide variety of applications, such as in the coating industry, space simulation chambers, vacuum metallurgy or freeze-drying plants and in the packaging industry.

During the year covered by this report, Pfeiffer Vacuum brought the world's first series of magnetically coupled Roots pumps to market. Their volume flow rates range from 250 to 6,000 m^3/h. These hermetically sealed pumps make oil leakage a thing of the past, and their operating costs are significantly lower. Because of their very low leakage rates, magnetically coupled Roots pumps are employed in both thin-layer technology as well as in industrial processes that involve toxic and aggressive gases.

The ADEx series was brought to market in 2004 specifically for processes in explosion-hazard environments or to evacuate explosive gases. These Roots pumps satisfy the explosion-hazard requirements of EU Directive 94/9 and are especially interesting for customers in the chemicals and pharmaceuticals industries.

To complement the standalone pumps, Pfeiffer Vacuum also offers a broad range of Roots pumping stations. In addition to its proven standard pumping stations, in which various sizes of Roots pumps are combined with rotary vane backing pumps, the Company also offers process-adapted pumping stations as customer-specific solutions.

Product Portfolio

The backing pump line is rounded out by a number of **dry pumps**. A dry pump does not require lubricants in the pump chamber, thus making it especially suitable for applications in the semiconductor industry, for example, in which oil residues could endanger the process. Dry pumps also include small diaphragm pumps, whose volume flow rates of from 1 to 10 m^3/h make them especially suitable as backing pumps for small turbopumps. They are predominantly employed in analytical equipment.

New XtraDry™ – dry pump with a broad range of applications

A new dry pump was brought to market in 2004, the XtraDry™, which aroused strong interest as a result of its innovative reciprocating concept. This clean, oil-free two-stage reciprocating vacuum pump is employed in analytical applications and medical technology, in particular, as well as in the industrial sector or simply as a reliable dry backing pump for turbopumps. In the few weeks since its market launch, over 200 of them had already been sold by year-end 2004.

In 2004, backing pumps accounted for 13 % of the Company's total sales, the same level as the year before.

> Vacuum measurement and analysis equipment/components

Pfeiffer Vacuum not only offers its customers products for generating vacuum. Vacuum measurement and analysis equipment is just as necessary. In vacuum technology processes, it is not only important to generate a vacuum, it is equally important to be able to identify and control the quality of this vacuum. There is no one single instrument that can measure the entire vacuum range of the vacuum that has been generated. This is why Pfeiffer Vacuum offers three different series of **total pressure measurement instruments**: The ActiveLine, a cost-effective solution for total pressure measurement in a vacuum; the DigiLine, consisting of digitally controlled gauges for industrial applications in which robustness and reliability are key; and the ModulLine for radiation-resistant total pressure measurement in ultra-high vacuum environments in research & development.

In production processes, it is often not only important to know "how much" is in something, but also "what it is." A **mass spectrometer** can be used to analyze the composition of a gas mixture in a production system. One of the applications for portable mass spectrometers is in environmental analysis. Pfeiffer Vacuum supplies a broad portfolio of mass spectrometers, ranging all the way to high-performance mass spectrometers for plasma analysis in coating processes and semiconductor fabrication.

Leaks can occur in even the best systems. These leaks are detrimental to the process and result in quality shortcomings. **Leak detectors** are employed to identify these kinds of effects that are harmful to the production process. The helium leak detectors offered by Pfeiffer Vacuum are characterized by high accuracy combined with robustness and industrial suitability. Typical applications include leak detection in refrigerators, air conditioning systems, piping systems and pressure vessels.

Pfeiffer Vacuum's product portfolio is rounded out by a broad selection of **installation elements and components**; these might be valves, gaskets, seals, flanges and fasteners. Our customers require these components whenever they build a vacuum system themselves.

In 2004, the percentage of total sales accounted for by measurement and analysis equipment and components rose to 27 %, as opposed to 24 % in 2003.

Product Portfolio

> Vacuum systems

Customer-specific system solutions for coating and leak-testing systems

In addition to individual vacuum components, such as pumps, measurement equipment and components, Pfeiffer Vacuum also develops and manufactures complete vacuum systems for customer-specified processes. Such systems comprise the following assembles: Recipient (vacuum chamber), vacuum pump or vacuum pumping station, measurement and regulating equipment, as well as electrical/electronic control.

Products in the systems segment also include helium leak testing systems, or **leak detection systems** for short. Environmental protection, quality assurance and cost optimization are placing very high demands on the leak-free integrity of numerous components, such as vehicle fuel tanks, aluminum wheel rims, chilled water piping and compressors or air conditioning systems, as well as food packaging and pressure vessels. On the one hand, it is necessary to satisfy increasingly strict legal limits and quality requirements, while minimizing testing times and operating costs on the other. Pfeiffer Vacuum employs innovative measurement technology and process-adapted automation technology to satisfy these requirements. Its custom-designed helium leak testing systems thus satisfy the highest demands with respect to efficient quality assurance.

Products in the vacuum systems segment also include Type Classic **coating systems**. These are single-chamber systems that are predominantly employed in the fields of optics, sensor technology and semiconductor fabrication. A Classic system can be used to produce coatings by means of vapor-deposition, plasma or sputtering processes.

One interesting activity with potential for the future is to retrofit existing vapor-deposition systems. Over a thousand of these systems for such optical systems as binocular lenses, night vision goggles and eyeglasses are out in the market. Although fully functional, they are technologically outmoded. In many cases, for example, no replacement parts are any longer available for the control system. However since many customers shy away from the costs of a new acquisition, Pfeiffer Vacuum offers a modular retrofit concept for these systems, in which the vacuum technology is made state of the art and the control system is equipped with cutting-edge computer technology. Four of these systems were modernized in 2004.

During the year under review, the percentage of total sales accounted for by all vacuum systems amounted to 6 %, as opposed to 8 % in 2003.

> Service

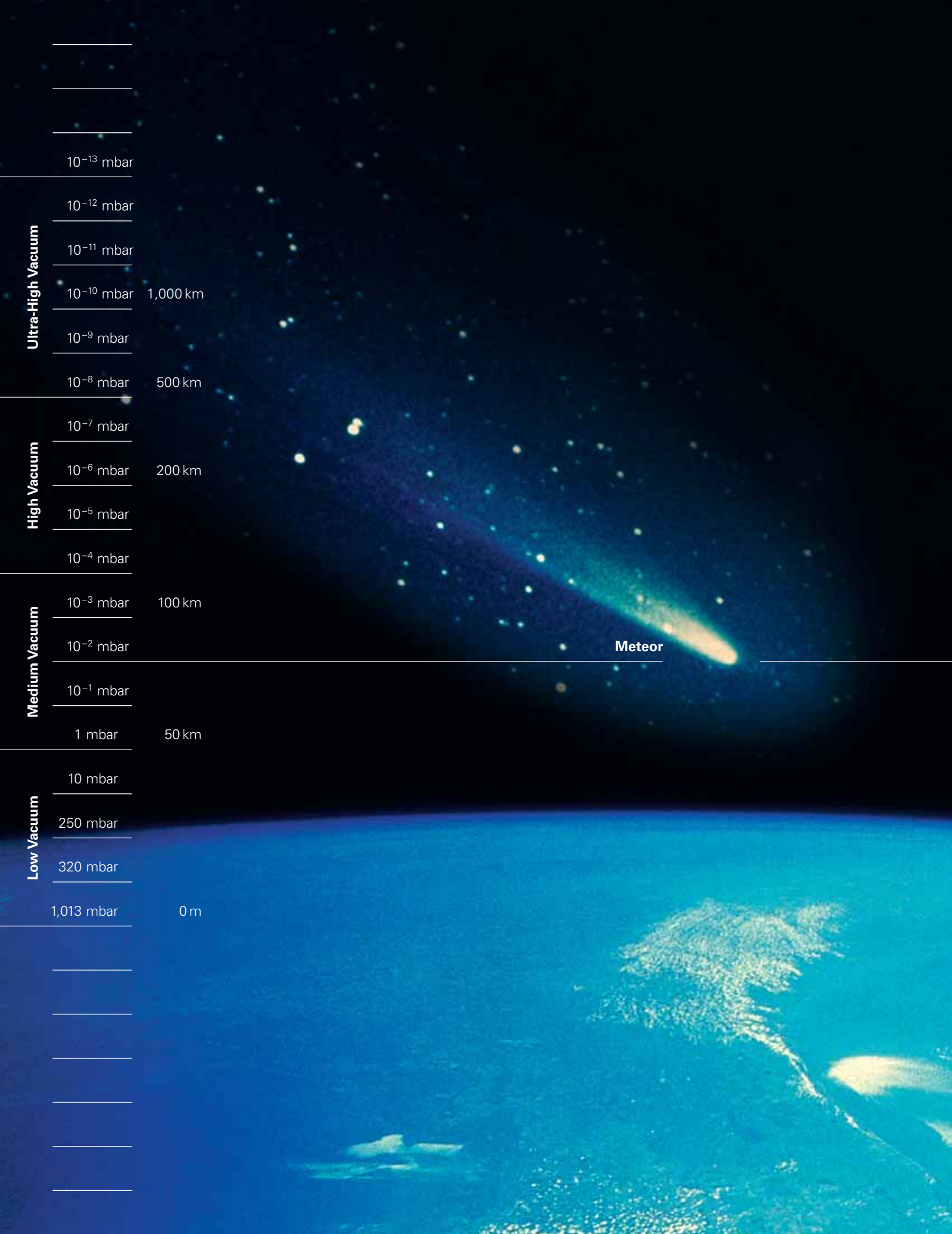
The only manufacturer of turbopumps to perform bearing changes on site

Service for our products is a line of business in its own right within the Company's product portfolio. A close-knit worldwide service network assures that prompt assistance can be provided to our customers. Service includes maintenance, repair or replacement of products at the factory or on the customer's premises and supply of replacement parts. In contrast to most of our competitors, we guarantee on-site service and a 24-hour response time for replacement or repair of our pumps in all major industrialized nations.

In 2004, service accounted for 16 % of total sales, as opposed to 18 % in 2003.

Sales by Product 2002 – 2004 (as a percentage of total sales)

	Turbopumps	Measurement and Analysis Equipment, Components	Service	Backing Pumps	Systems
2002	38	27	17	13	5
2003	37	24	18	13	8
2004	**38**	**27**	**16**	**13**	**6**


Ultra-High Vacuum
High Vacuum
Medium Vacuum
Low Vacuum
10^{-13} mbar
10^{-12} mbar
10^{-11} mbar
10^{-10} mbar
1,000 km
10^{-9} mbar
10^{-8} mbar
500 km
10^{-7} mbar
10^{-6} mbar
200 km
10^{-5} mbar
10^{-4} mbar
10^{-3} mbar
100 km
10^{-2} mbar
Meteor
10^{-1} mbar
1 mbar
50 km
10 mbar
250 mbar
320 mbar
1,013 mbar
0 m

The Mesosphere

This mid-level layer of the earth's atmosphere extends to an altitude of from 50 to 85 km above the surface of the earth. It is a layer of extremely thin air that contains virtually no ozone. This is where most meteors burn up and become shooting stars when they plunge toward earth.

The mesosphere has about the same density as the higher medium vacuum from 10^{-1} to 10^{-3} mbar that is generated for the production of incandescent lamps, for example.

Research & Development

With the invention of the turbopump, we set new standards in vacuum technology years ago. Ever since, Pfeiffer Vacuum has been the world technology market leader.

True to our motto, "Vacuum is nothing, but everything to us!", our physicists and engineers work in modern laboratories with the aim of enabling even better vacuum to be generated and measured in even less time with our products. 95 engineers, physicists and technicians work in the field of research & development at Pfeiffer Vacuum to develop new products and evolve our existing product portfolio. We also collaborate closely with universities and with companies in Germany and other countries that possess key technologies. Pfeiffer Vacuum regularly sponsors postgraduate thesis work in the field of R & D and offers internships for physics or engineering students. Since the introduction of the new dual work-study degree program in cooperation with the Technical University Giessen-Friedberg in 2002, Pfeiffer Vacuum has been providing work opportunities at the Company under this program.

Nearly 50 years ago, the turbomolecular pump was invented at Pfeiffer Vacuum. Today, it is a generic name for an ideal vacuum pump for generating high and ultra-high vacuum in an extremely varied range of potential applications. Pfeiffer Vacuum has steadily broadened its technology leadership in this class of pumps, bringing a number of evolved models to market during the year covered by this report.

In 2004, research & development expenditures totaled € 10.3 million, as opposed to € 8.9 million in 2003. Consequently, our research & development ratio amounted to 6.6 % of total sales (2003: 6.2 %).

60 % of total sales was generated with products that were developed and brought to market between 2001 and 2004. Eleven new patent applications were filed in the year 2004. Eleven patents were granted on pending applications. We hold a total of some 70 fundamental patents worldwide, along with 100 other patents.

Numerous patents and intellectual property rights secure our technology edge

We have been sponsoring the prestigious Röntgen Prize for many years

For over 40 years, we have been one of the two companies that sponsor the prestigious Röntgen Prize, which is awarded annually at Justus Liebig University in Giessen in recognition of outstanding research work performed by the coming generation of scientists. This year, the prize went to Dr. Simone Techert from the Max Planck Institute for Biophysical Chemistry in Göttingen for her outstanding research findings in the field of ultra-high-speed dynamics in organic solids with time-resolved x-radiation.

> **The following products were brought to market during the year covered by this report:**

Turbopumps for installation in any attitude The series of small and medium-size turbopumps for installation in any desired attitude, the so-called Y-versions, were developed and brought to market to further increase the application flexibility of our turbopumps. This innovation offers the customer the advantage of only having to stock fewer versions than in the past as spare pumps.

Turbopumps with integral power supplies To significantly broaden the applications for turbopumps, the power supplies in series TPD 011, TMH 071, TMH 262 and TMH 521 have been integrated directly on the pump. This development was in response to customer wishes, in particular from the analytical industry. The major advantage for the customer is the elimination of the wiring between pump and power supply. This evolution is being offered as an option, in addition to the existing standard products.

Broader product portfolio of turbopumps for process technology The TPH 2301 that was introduced last year satisfies the highest demands in terms of reliability and maximizing the gas throughput required in the fields of semiconductor technology and coating. Building upon this successful and reliable product, three further turbomolecular pumps, the TPH 1201, TPH 1501 and TPH 1801, were developed and brought to market. Their further optimized blade geometries make these pumps less susceptible to dust and condensate from the processes and thus even more robust and stronger than the predecessor models.

The line of successful turbopumps was rounded out in general through specific adaptations to both the pump system and the drive electronics, making them even more flexible and versatile.

Research & Development

Roots pumps for explosion-hazard environments under European Union Directive 94/9 EG (ATEX) With the Roots pumps from the ADEx series, Pfeiffer Vacuum debuted a new series for pumping explosive media and for operation in explosion-hazard environments. Four models from the Roots pump line offering volume flow rates of from 500 to 4,000 m^3/h have been certified under Directive 94/9 EG (ATEX). This will enable customers in the chemicals and pharmaceuticals industries who are subject to the applicability of Directive 94/9 EG, which has been in force in all EU member countries since July 2003, to continue to rely on the undisputed quality and dependability of Pfeiffer Vacuum Roots pumps. These explosion-proof pumps are based upon the proven AD series and can be substituted for them in pumping stations as they have identical dimensions.

XtraDry™ dry reciprocating pump with a broad range of applications With the XtraDry™, a dry pump has been brought to market whose volume flow is independent of the type of gas being pumped. This pump can be employed either as a standalone pump or as a backing pump for a turbopump. Typical applications are in the fields of packaging, analytical applications and medical technology. In addition, the XtraDry™ has been equipped with a variable-speed drive concept, thus increasing the service life of the pump.

UnoLine™ single-stage rotary vane pump series The single-stage, oil-sealed UnoLine™ rotary vane pumps are designed for industrial applications in the low vacuum range. This series of models covers volume flow rates of from 2.5 to 630 m^3/h and is characterized by robust design, reliability, process security and minimum operating costs, as well as extensive system accessories for a wide range of applications. The UnoLine™ pumps can be employed both as standalone pumps as well as backing pumps for turbopumps and Roots pumps, and thus represent a meaningful complement to the pumps from the well-known DuoLine™ series.

New HiQuad™ Quadrupole mass spectrometer With the new HiQuad™ high-performance mass spectrometer, Pfeiffer Vacuum offers a highly sensitive instrument for analyzing vacuum processes. This device enables extremely fast measurements to be performed with the utmost precision. The measured values can be clearly visualized with the aid of the intuitive Quadera software. Its modular design makes this product attractive for manufacturers of a wide range of analytical instruments. The various extension options and flexible interfaces make it easy to integrate into existing control concepts.

> Outlook

Further turbopumps with integral power supplies As already introduced in the small and medium-size turbopumps, we will now be offering an integral power supply as an option for the large TPH 1201, TPH 1501, TPH 1801, TPH 2301 and HiMag™ 2400 turbopumps, in addition to the integral drive electronics already available. Pumps with integral power supplies are especially meaningful in the coating industry with its large plants and numerous installed pumps, as this environment offers potential savings with respect to switchgear cabinet space requirements as well as cabling and wiring.

New SmartTest helium leak detector With the new SmartTest helium leak detector, we have succeeded in again improving on the predecessor model. The well-known simple operability of this device has also been enhanced. It is now possible to use one-button operation to search for potential leaks. Pfeiffer Vacuum offers different versions for various measurement needs. This modular concept provides customers with the best possible solution for their applications. The SmartTest is the right device for all quality assurance activities in the field of leak detection technology.

Overall, Pfeiffer Vacuum will be bringing product innovations to market in all product segments in 2005 and living up to its reputation as a full-line vendor of high-quality, cutting-edge vacuum technology.

Markets and Applications

As the leading vendor of vacuum technology, we have the right solution for every application.

Many products that are used in daily life can only be manufactured under vacuum conditions. We supply our products to such widely varying market segments as

- Industrial
- Analytical Industry
- Research & Development
- Semiconductor Industry
- Optical and Glass Coating
- Storage Media
- Chemical and Process Technology

Sales by Market Segment 2002 – 2004 (as a percentage of total sales)

	Industrial	Analytical Industry	Research & Development	Semi-conductor Industry	Optical and Glass Coating	Storage Media	Chemical and Process Technology
2002	12	25	22	12	20	4	5
2003	18	22	21	13	14	8	4
2004	**22**	**21**	**20**	**13**	**13**	**7**	**4**

This chapter explains in which of these markets our vacuum products are primarily employed, which developments occurred during the year covered by this report, and which opportunities and risks we envision for the coming year.

> Industrial market segment

A constant flow of new applications for our products in the heterogeneous industrial market segment

The industrial sector includes a wide variety of applications in metallurgy (soldering, hardening, casting and heat-treatment under vacuum), electron beam welding, freeze drying, plasma activation and surface treatment, vacuum drying in connection with parts cleaning, transformer and rolling oil treatment, vacuum-potting of electronic components, as well as leak testing of components in the air conditioning and automotive industries.

Several interesting applications from the heterogeneous industrial market segment in 2004:

- In the field of electron beam welding, we equipped one of the world's largest vacuum chambers with our Roots pumping stations. The drive gear rotor blades for wind turbine systems are welded together in these chambers. We have already received follow-on orders in this sector for welding railroad switches.
- In nanotechnology, the new generation of EUV (Extreme Ultraviolet = extremely short-wavelength UV light) lithographs at two prominent German manufacturers is being equipped with our pumps. Only with our pump technology is it possible to sustain gas throughputs in the required xenon plasmas. Xenon plasma emits light with wavelengths in the nanometer range that will be used in the future with the new EUV lithographs in order to lithograph nanoelectronic components. In the future, nanoelectronics is expected to replace microelectronics.
- Helium leak detection systems for leak-testing air conditioning evaporators for a customer in Austria
- Various major contracts from prominent automotive suppliers in Germany, France and Poland for leak-testing heat exchangers, air conditioning lines and compressors
- Framework agreement making us the preferred supplier of vacuum equipment to a Danish industrial concern

Pfeiffer Vacuum supplies major plant engineering companies with dry pumps, rotary vane and Roots pumps, measurement technology and customer-specific system solutions. Since the applications are primarily in the low and medium vacuum range of up to 10^{-4} mbar, turbomolecular pumps are employed only on an individual basis. The new magnetically coupled series of Roots pumps significantly increases the availability of production systems, offers considerable savings in maintenance costs and reduces downtimes at our customers. This innovative drive concept documents the innovative strength of Pfeiffer Vacuum as a leading vendor in the low and medium vacuum range, as well.

The percentage of the Company's total sales accounted for by the industrial market segment again rose in 2004, and now amounts to 22 % (2003: 18 %). We anticipate further growth in this segment for the year 2005.

Markets and Applications

> Analytical industry market segment

Today's analytical technology inconceivable without modern vacuum technology

In medical technology, pharmaceuticals, environmental and biotechnology, as well as in the semiconductor industry and materials testing laboratories, even minute percentages of specific materials have to be able to be analyzed and detected. With the focus on assuring a uniformly high standard of quality and analyzing unknown materials ranging right through to trace elements. In 2004, for example, refined measurement methods enabled significantly more cases of doping to be evidenced in the Tour de France and at the Olympics in Athens than in the past. The electron microscopes that are often employed for analysis would not be able to operate without vacuum technology. We serve the analytical market with compact turbopumps ranging up to the 500 l/s class that unite the utmost in reliability with extremely low vibration and compact design. Dry backing pumps, digital gauges and vacuum components round out the range of offerings.

Major manufacturers in the Netherlands and the Czech Republic opted to install vacuum products from Pfeiffer Vacuum in their electron microscopes in 2004.

In 2004, the percentage of the Company's total sales accounted for by the analytical industry market segment remained nearly stable at 21 % (2003: 22 %). Pfeiffer Vacuum was able to retain its position of market leadership.

In late 2004, new major framework agreements were signed with various key customers in the United States, the United Kingdom and Germany. We expect that this market segment will therefore continue to grow faster in the years 2005 and 2006.

> Research & Development market segment

The research & development market segment offers a constant utilization factor

Physics and chemical research laboratories at all universities throughout the world rely on quality and dependability from Pfeiffer Vacuum. Major research facilities and corporate institutes also need vacuum products for their projects. Public sector budget freezes and cuts are limiting growth. Accounting for 20 % of total sales (2003: 21 %), this market segment is an important, constant and less cyclical source of sales revenues.

In Germany, the newly launched XtraDry™ pump succeeded in replacing the reciprocating pumps from competitors on particle accelerators and in ultra-high vacuum equipment. We were successful at major research institutions like CERN, for example, Europe's largest research center in Geneva: In addition to turbopumps, our vacuum gauges will increasingly be employed here in the future.

One spectacular research segment, although it does not involve high sales volumes, is the field of space research. Pfeiffer Vacuum products, first and foremost turbopumps, have flown along on virtually all space missions in recent years. Our large, high-performance, robust Roots pumps are employed in space simulation chambers in Germany, Italy and India to thoroughly test out satellites under space-like conditions before they are launched.

Pfeiffer Vacuum products are also being successfully employed in researching renewable energies or in basic physics research.

> Semiconductor industry market segment

Sales with our customers in the semiconductor segment remained stable in 2004

Transistors, microprocessors and similar electronic components are classified under the term semiconductors. These electronic components are required in computers, radio and television sets, mobile phones, household appliances, automobiles, industrial machinery and satellites, making them indispensable in our daily lives. The processes for manufacturing these electronic components include crystal growing, wafer coating and ion implantation. These processes depend upon the employment of vacuum technology. Pfeiffer Vacuum primarily supplies turbopumps to the semiconductor industry, as well as backing pumps, pumping stations, vacuum measurement equipment and vacuum components.

Our customers are either
- Equipment manufacturers, i.e. companies that manufacture machinery for fabricating semiconductors, or
- Chip manufacturers, i.e. companies that fabricate semiconductor chips.

In recent years, this market segment has suffered from strong ups and downs. Following weak years, demand rose sharply during the second half of 2003. This rise continued until mid 2004 before slowing down again.

Markets and Applications

Successes were achieved first and foremost in new business with large equipment manufacturers. At a major customer in the United States, sales were able to be more than doubled over the previous year by displacing competition products. In Korea, a major chip manufacturer instructed its equipment vendor to install only Pfeiffer Vacuum products. Overall, the worldwide installed base of Pfeiffer Vacuum pumps rose, and the Company's position in the semiconductor market was strengthened.

During the year covered by this report, Pfeiffer Vacuum closed the last gaps in its product line for the semiconductor industry with the TPH 1201 and TPH 1501. Approval tests for these turbopumps are currently being conducted at all major equipment manufacturers. Various chip manufacturers have already purchased the new pumps and have successfully employed them in their production equipment.

The percentage of total sales accounted for by the semiconductor market segment remained stable at 13 %.

In a generally declining semiconductor market, Pfeiffer Vacuum anticipates constant or moderately rising sales for the coming year thanks to its stronger position and large installed base.

> Coating market segment

Important new customer wins in the coating market segment

Materials that have differing melting points, such as metal and plastic or glass and metal, can only be bonded with one another or coated under vacuum.

There are a wide variety of application examples for coating under vacuum:

- Applying antireflective or color coatings to eyeglass lenses
- Coating architectural glass (window glass)
- Coating headlamps and light bulb reflectors
- Manufacturing flat-screen displays
- Manufacturing LEDs (light emitting diodes)
- Coating tools

In 2004, the world's largest manufacturer of eyeglass coating systems was won as a customer. This makes Pfeiffer Vacuum a key supplier to the two most important vendors in the field of ophthalmics.

In early 2004, the world's largest architectural glass coater was installed in China by a German plant engineering company. This large-surface coating plant is equipped with a total of 90 large turbopumps from Pfeiffer Vacuum.

In Germany, pumps were manufactured for a strip processing line for coating aluminum. Aluminum strip is used to manufacture the reflectors that are installed in ceiling luminaires, for example. We were able to convince a further key customer in Germany to employ our pumps to manufacture aluminum-coated plastic automotive headlamps. A German customer, a manufacturer of machinery for producing flat-screen displays, also opted for Pfeiffer Vacuum pumps.

In the Netherlands, we were named a preferred supplier to a manufacturer of plants for coating solar cells and organic light emitting diodes (OLEDs).

A large inline coating plant for solar modules in which the previous coating width was able to be doubled to 1.20 m was delivered to Sweden in early 2005.

Wear protection is a further application. Our customers coat drills, milling cutters and other tools with mechanically resistant coatings that can only be applied to the surface of these tools under vacuum. These coatings afford faster machining speeds and significantly longer tool life. During the year covered by this report, a further major manufacturer of tool coating systems was won in Austria.

Sales in the coating market segment account for 13 % of total sales (2003: 14 %). We anticipate moderate growth in this segment for 2005.

Markets and Applications

> Storage media market segment

In 2004, we succeeded in winning two further major manufacturers of DVD systems as customers for our vacuum pumps and components. This means that Pfeiffer Vacuum is now supplying all significant manufacturers of DVD systems – further documenting the reputation for high quality that our products enjoy.

We supply pumps and components to all major manufacturers of DVD systems

In 2004, the storage media market segment accounted for 7 % of total sales (2003: 8 %).

In addition to vacuum pumps and components, over the course of the past three years we have also developed and marketed DVD metalizers and complete systems for manufacturing DVDs. In spite of the outstanding quality and performance specifications of these products, we were unable to win sufficient market share last year either. This line of business is the only unprofitable segment at Pfeiffer Vacuum. At the beginning of 2005 the management decided to shut down the business.

> Chemical and process technology market segment

It is predominantly our new dry pumps, as well as our extremely reliable rotary vane and Roots pumps with their reputation for reliability, that are employed in the chemical and process technology market segment.

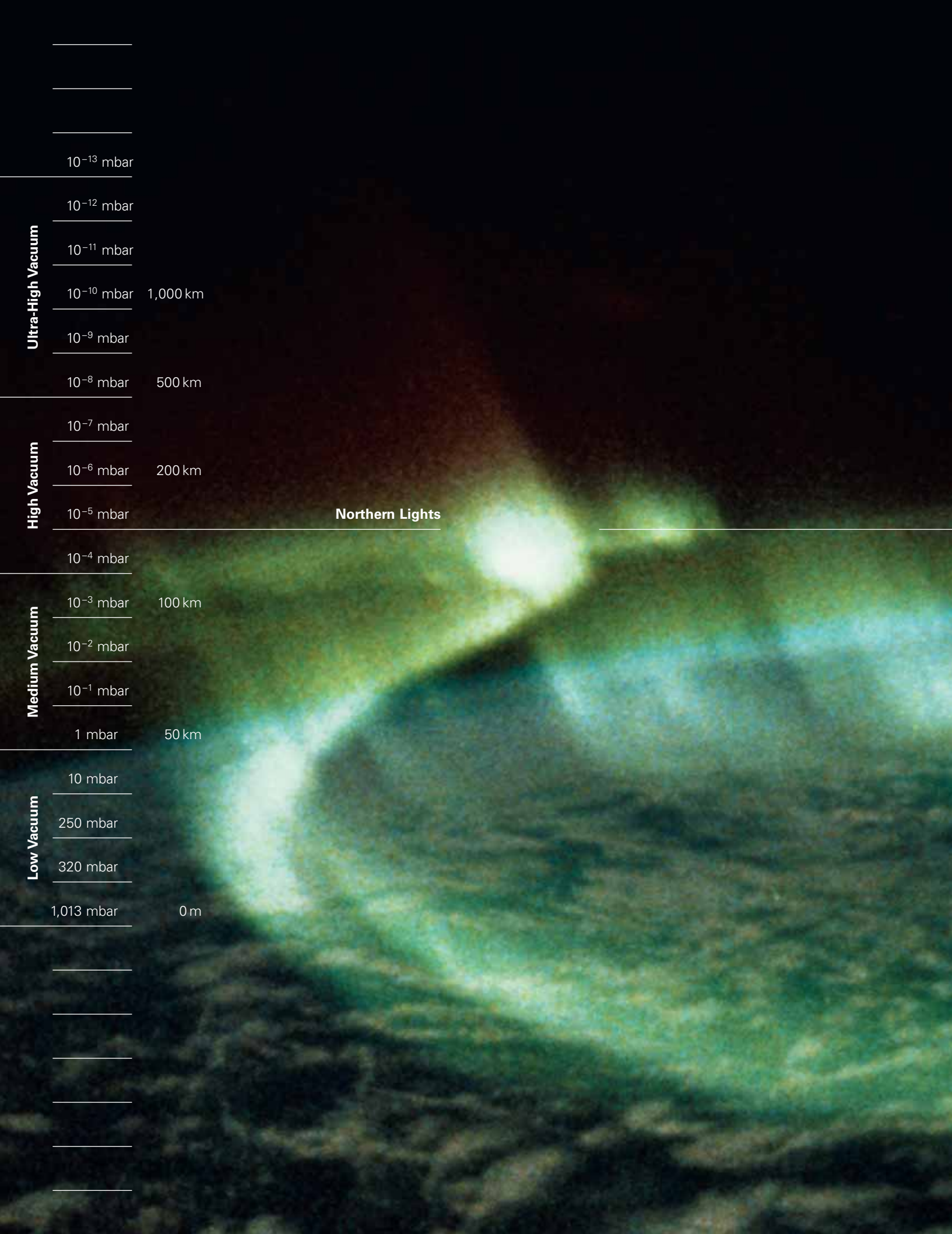
The primary fields of application in the chemical process technology sector are solvent recovery, extruder degassing, raw material rectification and drying, as well as vacuum sterilization. To further expand business in these applications, Pfeiffer Vacuum developed the new ADEx series of Roots pumps that satisfy the requirements of the new European 94/9 EG explosion-protection directive.

Chemical and process technology is a conservative and safety-minded market

In the process technology sector, Pfeiffer Vacuum is increasingly offering customer-adapted vacuum solutions. What are offered are vacuum design engineering, adapted to the application in question, including selection of suitable pumps. Upon request, all components can be assembled to form a ready-to-run unit, if necessary complete with a control system, including measurement technology.

One particular highlight during the year covered by this report was the delivery of 20 complex pumping stations for installation in cancer treatment accelerators at the University of Heidelberg. Integrated in these pumping stations is the latest vacuum technology from Pfeiffer Vacuum, such as the dry XtraDry™, as well as especially high-performance turbopumps. Developed for this project by Gesellschaft für Schwerionenforschung (GSI) in Darmstadt was a new treatment method that brings new hope to what had previously been incurable brain tumors. In a pilot project, head tumors that had previously been unable to be treated with conventional methods were irradiated with accelerated carbon ions. The method has already been successfully performed on 200 patients. Given these results, a treatment center is currently being built in Heidelberg that will be able to treat up to 1,000 patients a year. The pilot project has already sparked keen interest worldwide; comparable follow-on orders are therefore anticipated.

The percentage of total sales accounted for by the chemical and process technology market segment remained stable at 4 %. We anticipate moderate growth for 2005.


10^{-13} mbar
Ultra-High Vacuum
10^{-12} mbar
10^{-11} mbar
10^{-10} mbar
1,000 km
10^{-9} mbar
10^{-8} mbar
500 km
High Vacuum
10^{-7} mbar
10^{-6} mbar
200 km
10^{-5} mbar
Northern Lights
10^{-4} mbar
Medium Vacuum
10^{-3} mbar
100 km
10^{-2} mbar
10^{-1} mbar
1 mbar
50 km
Low Vacuum
10 mbar
250 mbar
320 mbar
1,013 mbar
0 m

The Thermosphere

The thermosphere extends from an altitude of around 80 to 500 km above the surface of the earth. It is also termed the ionosphere, as the molecules of gas contained in this extremely rarified layer of the atmosphere are ionized, i.e. split into ions and free electrons, by energy-rich cosmic radiation. This is where strong electrical and magnetic fields produce the fascinating northern – and southern – lights (aurora borealis).

The thermosphere has about the same density as the high vacuum from 10^{-4} to 10^{-7} mbar that is used in industrial vapor deposition and coating processes.

Environment, Safety and Quality

Environmental protection, quality assurance and job safety – three criteria for the Company's sustainability that are not in contradiction with economic activity.

> Environmental protection

The Company's environmental management system was reviewed by an independent certifier in connection with a follow-up audit in September 2004. We passed the audit without any variances. A new certificate under ISO 14001:1996 was issued for a further three years.

Our risk potential was again reviewed and assessed with respect to required preventive measures, in connection with which an improved concept was developed for flood protection.

All relevant environmental factors are regularly monitored and assessed. Ten environmental audits were conducted during the course of the year. The items that were audited included compliance with legal requirements in handling and storing hazardous materials. No material variances were identified.

Development of Energy and Water Consumption:

		2004	2003	2002
Electricity	MWh	9,668	9,423	9,163
Gas	m^3	823,859	771,634	735,237
Water	m^3	21,852	17,888	17,344

The 2.6 % higher electrical consumption than the year before will be reduced to the 2003 level next year through energy-conservation measures in connection with compressed air generation and air conditioning.

By comparison with the year before, gas consumption was negatively impacted by significantly higher consumption during the summer months. No economically meaningful savings potential is presently seen here.

Overview of various environmental measures conducted in 2004:

- Modernization of the air conditioning control system in one area to improve effectiveness and reduce energy consumption.
- Conversion of the treatment system for spent coolant-lubricants (vacuum distillation system). This measure enabled the effect of noise and odors on employees in the vicinity of the system to be significantly reduced. As a result of the conversion, the spent coolant-lubricants are now able to be treated even more effectively, thus reducing the disposal volume.
- The investment volumes required for replacing older chilled water compressors with environmentally friendly, energy-saving models were studied and corresponding modernizations are planned for 2005.

Our major environmental goals for 2005

- Analysis of the potential for savings in connection with compressed air supply to further reduce the consumption of electrical energy.
- Modernization of the separation system for easily liquefiable materials.

Sustainability in product development Environmental design engineering requirements are applied in developing new products. This relates to both the materials that are used, including their recyclability, as well as to such customer-specific environmental aspects as reducing the consumption of the energy needed to operate pumps, thus significantly lowering regular operating costs.

The requirements for sustainable product development are contained in our quality handbook, which is available to all employees over the intranet.

Environment, Safety and Quality

> Job safety

In 2004, a total of 32 job safety audits were conducted, 14 of them together with the plant medical service and the Employee Council. In addition, three audits were conducted together with the environmental protection and fire protection coordinators. The job safety committees held a total of six meetings. Our employees are familiarized with all requirements relating to job safety, noise abatement, handling of hazardous materials, accident and fire prevention. Every employee has access to the required EU safety data sheets and standard operating procedures in our quality handbook.

The Company's job safety organization and job safety measures were reviewed in September 2004 in connection with the audits under ISO 9001:2000 and ISO 14001:1996 and certified without restriction.

The number of reportable on-the-job accidents in 2004 increased marginally from the previous year's level, from eleven to twelve. No on-the-job accident was found to have been caused by a technical shortcoming or by the lack of safety equipment.

Our job safety targets for 2005

- Review of compliance with the EU-wide rules contained in the plant safety directive
- Compliance with the new work health and safety directive
- Compliance with the new hazardous materials directive
- Production of an explosion-protection document

> Quality

Within the framework of our quality management system, all business processes are continuously scrutinized and enhanced. Ten internal quality audits were conducted in 2004 for this purpose, with no material variances being identified. All internal processes are documented in the quality handbook and are made available to our employees over the intranet.

Quality targets are defined and assessed annually, with compliance being measured. Continuous improvement processes are an element of all of the Company's processes, from the development of a product right through to its employment by the customer.

All A-suppliers are visited at least once a year and subjected to a "vendor check." During this check, complaints and the on-time delivery status are reviewed, and new targets are agreed upon.

"Turbo Office" is an important quality improvement project. In a benchmarking process, organizational processes in the administrative departments are critically scrutinized and compared in workshops with those at other small and medium enterprises. This project was launched in the autumn of 2003 and was intensively pursued in 2004. In addition, employees from various departments of the Company were informed about new process analysis methods. As a part of this project the repair order handling process was analyzed and process improvement measures were jointly developed. This enabled throughput times to be significantly shortened, while simultaneously reducing handling costs.

Communication between customers, the sales organization and internal departments was studied and assessed with the involvement of external consultants – an important step toward further improving customer satisfaction.

These projects are major steps toward mutual, cross-departmental process optimization and a holistic view of quality.

On-time deliveries optimized to 98 %

In 2004, our on-time delivery status was further improved from 95 to 98 %. This, too, documents the success of our ongoing efforts aimed at process improvement, as clearly defined processes are ultimately a major aspect in on-time handling of customer orders.

Our quality targets for 2005

- Creating an improved central database for all quality-related data. The objective is to provide even greater transparency with respect to existing potential for improvement, while reducing data capture costs.

Our People

A company is only as good as its people. That's why we attach particular importance to intensive, comprehensive training, education and qualifications.

Throughout the world, our employees "give their all for nothing." On December 31, 2004, the corporate group employed a total of 745 people. That represents a decline of 2 % from the previous year (761). This reduction resulted primarily through non-renewal of temporary employment contracts as well as through both regular and early retirement.

Personnel expenses in the year 2004 totaled € 45.9 million, as opposed to € 47.1 million in 2003.

Workforce

	2004	2003
Total employees worldwide	745	761
Male	614	631
Female	131	130
Employees at corporate headquarters	514	522
Employees at the Aschaffenburg facility	49	56
Employees at sales subsidiaries	182	183
		Dec. 31

The "Alliance for Work" that was mutually agreed with the Employee Council in 2003 and the flexibilization of working hours had a positive impact on the year 2004. The employees' negative time account balances were able to be used during months in which there was increased demand for our products. A further effect was the ability to retain qualified, well-trained employees.

> Training and qualifications

Good education and training, along with a willingness to engage in ongoing continuing education and training in response to the needs of the market, represent the best prerequisites for secure jobs and sustained business success.

Industrial mechanics are trained for tasks in manufacturing operations in a trainee workshop at the manufacturing facility in Asslar that is equipped with the latest machinery. In addition, we are also training industrial commercial operations specialists and an advertising commercial operations specialist. In 2004, we provided a total of 29 training slots – a good investment in the future of the Company and its people. Pfeiffer Vacuum is participating in work-study educational program under a collaborative effort between the Giessen-Friedberg Technical University and the chamber of industry and commerce. University openings for a total of six business engineering and mechanical engineering students are currently being sponsored. In 2004, two graduates of this educational program were able to be offered jobs with our Company.

Working in close collaboration with general and technical universities, new blood for the future is being familiarized with life in a modern industrial enterprise by making jobs available for interns and awarding contracts to postgraduate thesis candidates. In 2004, two postgraduate theses were written at the Company under the coaching of staff from the development department.

Our people view a problem as a challenge

To assure that our people's knowledge is always up to date, continuing education measures are offered by both our in-house staff and external lecturers. This included training in the subject of customer-driven advisory services and price negotiations for staff from customer service, as well as on modern techniques of moderation for sales and marketing staff. Our service staff is trained in how to effectively plan and conduct on-site technical training. Two dedicated in-house employees provide technical training for employees and customers. Further employees from Marketing, Development and Service can be called in on an as-needed basis to lecture at training courses. A broad course curriculum offers training in German and English on new and existing products to all sales and service staff.

The "Turbo Office" project was launched in the autumn of 2003 and intensively pursued in 2004. In a benchmarking process, organizational processes in the administrative departments are critically scrutinized and compared in workshops with those at other small and medium enterprises.

Our People

All employees from the participating departments are involved in the project, and are participating in this competition with a high level of enthusiasm and motivation.

The following overview underscores the high level of education of our people:

Professional and Vocational Qualifications

	2004	2003
Development and Manufacturing		
College and university graduates	75	67
Employees with specialized training	280	289
Employees without specialized training	48	50
Trainees	19	19
Administration, Sales and Marketing		
College and university graduates	128	147
Employees with specialized training	174	167
Employees without specialized training	11	11
Trainees	10	11

Dec. 31

> Attractive pay concepts

In 2004, all employees again shared in the Company's success in the form of a pay bonus. A growth-based bonus system provides additional incentive to the staff of the sales organization. Executives at corporate headquarters have a variable income element that is coupled to the achievement of the Company's operating profit target.

> Old-age pensions

In Germany, Pfeiffer Vacuum offers its employees a Company old-age pension plan through a funded supplemental retirement benefit corporation and a pension fund, providing a tax-advantaged opportunity for a supplementary old-age pension by earmarking a portion of their income for this purpose.

Employees who joined the Company prior to June 1996 are additionally entitled to a Company-funded old-age pension. Since year-end 2003, the Company's pension obligations under agreements relating to the Company-funded old-age pension have been held in an asset management trust in the form of a registered association, Pfeiffer Vacuum Trust e. V. Information relating to the development of the pension trust is contained in the Notes to the Financial Statements on page 106.

Various pension plans that conform to country-specific conditions are in place at the sales subsidiaries.

During the year covered by this report, six employees took advantage of the opportunity to gradually transition into retirement under a part-time contract for near retirees. This enabled us to offer trainees permanent jobs upon passing their final examination.

The following overview documents the balanced ratio between young and old at the Company.

Age Structure of the Company

	2004	2003
Under 30	91 (12 %)	87 (11 %)
30 to 50	479 (64 %)	503 (66 %)
Over 50	175 (24 %)	171 (23 %)

Dec. 31

> **Social responsibility toward the Company and the outside world**

Modern workplaces, teamwork and flat hierarchies are what characterize Pfeiffer Vacuum. The Company takes its social responsibility toward its people seriously, meets its disabled-employee quota and is in compliance with official accident prevention and job safety regulations (see also "Environment, Safety and Quality" on page 56). The Company pays employees at its German locations either on the basis of the general collective-bargaining agreement for the metalworking and electrical engineering industries or at higher pay scales, and observes codetermination principles. The fact that there does not have to be a contradiction between corporate and employee interests at Pfeiffer Vacuum is demonstrated by the spirit of constructive collaboration that exists between Employee Council and Management, for example in instituting flexible working hours. The principles of equitable treatment for all and protection of minors are observed worldwide.

Pfeiffer Vacuum also lives up to its social responsibility outside the Company. It awards grants to aid the work of facilities for children and the disabled, and also sponsors regional sports clubs. Schools and universities are supported through both cash and non-cash donations.

Management's Discussion and Analysis (MD & A)

Sonja Dellner-Bittorf (42) *Shipping, with the Company for the past 23 years*

Dr. Klaus Deutscher (41) *Market Manager Coating, with the Company for the past 11 years*

Jürgen Keller (36) *Market Manager Analytical Industry, with the Company for the past 2 years*

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Management's Discussion and Analysis

The 2004 fiscal year was characterized first and foremost by two factors: A significant improvement in operating profit from our core business and an impact on profitability stemming from our withdrawal from DVD business.

With our highly profitable core business of "vacuum pumps," we succeeded in increasing sales by € 12.2 million from € 144.0 million to € 156.2 million in a business environment that was characterized by a weakness of the dollar and a lack of impetus from the development of the global economy. Through the cost-reduction measures that were initiated the year before and the higher percentage of sales accounted for by products with high gross margins, we succeeded in largely compensating for the € 8.9 million negative effect stemming from our withdrawal from DVD business. As a result, the Company's operating profit declined only by € 1.4 million from € 19.5 million to € 18.1 million. New orders and orders on hand stood at an encouraging level: New orders were up by € 5.1 million from the year before to € 155.3 million, while orders on hand totaled € 26.3 million (2003: € 27.2 million).

Developments in the DVD market as well as the poor track record of payments in this market ultimately necessitated this withdrawal. Revaluations of assets in connection with the withdrawal have already been incorporated in the Consolidated financial statements for the year ended December 31, 2004. Overall, this special item had a € 8.9 million impact on our Statement of Income. Without this special item, our operating profit would have risen by 38.5 % from the year before, to € 27.0 million.

Despite these negative special items, we earned net income of € 11.6 million, which was down by only € 1.1 million from the previous year's level of € 12.7 million.

Overall Economic Environment

> World economy

Following years of stagnation, it is now fair to speak of a moderate upswing. In 2004, the world economy grew by 4.8 %, stemming in particular from the economic development of the threshold and developing countries. The relatively poor development of the industrialized nations is primarily attributable to the high price of oil and the weak U.S. dollar.

> United States

At 4.4 %, economic growth in the United States in 2004 lagged slightly behind the growth rate of the world economy overall. Aside from the continued low level of interest rates, this growth was fueled primarily by government demand in the armaments sector.

> Europe

Economic development in Europe tended to be sluggish by comparison with the development of the world economy. While the two major economies, France and Germany, saw only modest economic improvement, the countries of Eastern Europe, in particular, posted strong growth rates. Europe saw a 2.4 % change in gross domestic product for 2004. The noticeable upswing in Germany during the initial months of 2004 flattened in the third quarter. Moreover, the strong euro curtailed the upward trend of export business to countries outside the Euro Zone. Overall, there was a 1.7 % change in gross domestic product in Germany.

> Asia

The growth of the world economy in 2004 resulted in particular from the development of the Asian economic region. Leaving out of consideration the Japanese economy, which grew at 2.9 %, gross domestic product rose by 7.5 % here. The market with the strongest growth continues to be the People's Republic of China with growth of 9.1 %.

> Vacuum industry

As in the year 2003, the vacuum industry was dominated by the influence of the world economy in 2004. Overall, the industry posted modest growth year on year.

Business in Fiscal 2004

> Overview

Net sales in fiscal 2004 totaled € 156.2 million. Following net sales of € 144.0 million the year before, this represents an increase of € 12.2 million or 8.5 %. Demonstrating Pfeiffer Vacuum's outstanding competitive position, especially since the development of sales revenues was negatively impacted in the amount of € 3.3 million due to the weak U.S. dollar.

Operating profit for the 2004 fiscal year (€ 18.1 million) was down by € 1.4 million, or 7.2 %, from the year before. The EBIT margin amounts to 11.6 % (2003: 13.5 %). This decline was attributable to the above-indicated special effect resulting from our withdrawal from DVD business. On the other hand, the consolidated group's profitability benefited from our rigorous cost management as well as from the high percentage of sales of high-margin products. Overall, our highly profitable operating business enabled us to compensate for all but € 1.4 million of the special items, i.e. nearly in full.

Including financial income (€ 1.5 million; 2003: € 3.7 million), income before taxes totaled € 19.6 million. Given the previous year's level of € 23.2 million, this represents a decline of € 3.6 million or 15.3 %.

Overall, Pfeiffer Vacuum generated net income of € 11.6 million. Following € 12.7 million the year before, this represents a decline of € 1.1 million or 8.8 %.

> **Regional sales distribution**

The total net sales of € 156.2 million generated in 2004 breaks down as follows among the regions:

Sales by Region 2001 – 2004 (in € millions)

	Europe (Excluding Germany)	Germany	United States	Asia	Other Regions
2001	56.6	48.0	44.8	19.4	1.3
2002	50.9	40.5	35.8	22.4	1.3
2003	48.3	40.4	32.8	21.6	0.9
2004	**49.3**	**47.0**	**33.1**	**25.7**	**1.1**

Europe (excluding Germany) In Europe, Pfeiffer Vacuum recorded a rise in sales of € 1.0 million, or 2.1 %, to € 49.3 million, thus running counter to the general trend of development in this region. The major factor that contributed to this development was higher sales in Switzerland, which rose from € 6.5 million to € 8.7 million, and in Austria, which rose from € 6.4 million to € 8.1 million. In France, sales declined from € 6.4 million to € 4.8 million.

Germany The development of sales in Germany was encouraging as well. Sales advanced by 16.3 % from € 40.4 million the year before to € 47.0 million. Accounting for 48.8 % of European sales, Germany continues to be the largest market within Europe.

In spite of a renewed weakening of the U.S. dollar, sales rose in the United States

United States In the United States, sales rose by € 0.3 million from € 32.8 million to € 33.1 million, although the weakness of the U.S. dollar had a negative € 3.3 million impact on the development of sales. Accounting for 21.2 % of total sales, the United States continues to rank second. Expressed in U.S. dollars, 2004 sales rose by 11.5 % from US$ 37.2 million in 2003 to US$ 41.4 million.

Asia and other regions In the Asian region, sales development in fiscal 2004 was positive, too, with sales advancing by € 4.1 million to € 25.7 million and a growth rate of 18.4 % (2003: –3.7 %). With sales of € 12.9 million (2003: € 11.5 million), Japan is our most important market in Asia, followed by Korea (€ 4.2 million for the fiscal year; 2003: € 2.6 million). The percentage of consolidated sales accounted for by Asia rose from 15.0 % the year before to 16.4 %. The sales generated in other regions (€ 1.1 million; 2003: € 0.9 million) accounted for 0.7 % of total sales (2003: 0.6 %).

Business in Fiscal 2004

> Sales by product

Accounting for 38.1 % of total sales (2003: 37.2 %), the turbopump continues to be our bestseller. In absolute numbers, sales rose by € 5.9 million from € 53.6 million to € 59.5 million. Sales of measurement and analysis equipment and vacuum components increased by 20.8 % from € 35.2 million to € 42.5 million. Overall, this product group accounts for 27.2 % of total sales (2003: 24.4 %) and thus ranks second. Service business generated sales of € 25.0 million (2003: € 25.9 million). Sales of backing pumps ranked fourth, rising by € 1.7 million from € 18.0 million to € 19.7 million. The backing pump portfolio includes rotary vane, Roots and dry pumps. Systems business produced sales of € 9.5 million in fiscal 2004 (2003: € 11.3 million). This represents a decline of € 1.8 million and 6.1 % of total sales.

Sales by Product 2001 – 2004 (in € millions)

	Turbopumps	Measurement and Analysis Equipment, Components	Service	Backing Pumps	Systems
2001	64.0	48.0	26.8	22.3	9.0
2002	56.7	41.7	26.1	19.3	7.1
2003	53.6	35.2	25.9	18.0	11.3
2004	**59.5**	**42.5**	**25.0**	**19.7**	**9.5**

> New orders and orders on hand

New orders during the fiscal year totaled € 155.3 million, up € 5.1 million from € 150.2 million the year before. € 7.6 million of this rise stemmed predominantly from the higher volume of new orders for measurement and analysis equipment/ components, totaling € 3.1 million and € 2.2 million, respectively, from the higher volume of orders for turbopumps and backing pumps. At € 8.0 million, on the other hand, new orders in systems business were down. This sharp decline from the year before resulted from the cancelation of orders in DVD business.

At year-end 2004, the book-to-bill ratio – the quotient of new orders and sales – amounted to 0.99 (2003: 1.04). This means that the value of new orders roughly equaled sales, illustrating our good point of departure for the year 2005. Orders on hand totaled € 26.3 million (2003: € 27.2 million).

> Earnings development

Given the above-indicated sales numbers of € 156.2 million and cost of sales in the amount of € 93.9 million (2003: € 81.7 million), we earned a gross profit of € 62.3 million, the same as the year before. The impact of our withdrawal from DVD business on the statement of income affected cost of sales, in particular, which rose by 14.9 % or € 12.2 million. Expenses here were primarily incurred for impairment losses on inventories.

Totaling € 34.0 million, selling, general and administrative expenses remained virtually unchanged from the year before. This means that the impact of our DVD business on profitability, in particular due to expensing its capitalized goodwill (€ 1.0 million), was offset by cost savings in other areas of the Company. In addition, the effect of the flexible worktime model that was instituted in 2003 and 2004 can also be seen. Research & development expense totaled € 10.3 million in fiscal 2004. This is an increase of € 1.4 million, or 14.8 %. The research & development expense ratio was 6.6 % relative to sales (2003: 6.2 %).

Operating Profit 2001 – 2004 (in € millions)

2001	28.2
2002	21.2
2003	19.5
2004	**18.1**

Financial income totaled € 1.5 million in 2004 (2003: € 3.7 million), resulting from interest income in the amount of net € 1.1 million and exchange rate gains of € 0.4 million. A portion of the € 2.2 million decline in financial income from the year before was attributable to the assets that were transfered to the pension trust, as legal requirements mandate that the interest income generated by them has to be netted with the additions to the Trust and therefore increased operating income. Moreover, the exchange rate gain declined by € 1.7 million from the year before to € 0.4 million. This was primarily due to the development of the U.S. dollar.

Business in Fiscal 2004

Overall, this results in income before taxes of € 19.6 million, representing a decline of € 3.6 million or 15.3 %.

Before/After-Tax Income 2001 – 2004 (in € millions)

2001	29.4	18.9
2002	24.8	17.5
2003	23.2	12.7
2004	**19.6**	**11.6**

The tax rate for the consolidated group amounted to 40.8 % (2003: 45.0 %). Major reasons for this decrease were a special item due to the loss of corporate tax reduction included in prior year tax expenses and a lower corporate tax rate of 25.0 %. Our net income for the year 2004 thus totaled € 11.6 million (2003: € 12.7 million).

> Financial position

Equity again rises – A manifestation of profitability

The balance sheet total of the consolidated Pfeiffer Vacuum Group rose from € 119.8 million to € 125.2 million. This represents an increase of € 5.4 million or 4.6 %. On the assets side, this change resulted essentially from the increase in cash and cash equivalents, from € 29.4 million to € 45.0 million (€ +15.6 million), as well from as the € 1.9 million increase in other accounts receivable to € 4.1 million. On the other hand, there was a decrease in inventories (€ –5.5 million) and trade accounts receivable (€ –3.3 million). The development of inventories and fixed assets was impacted by our withdrawal from DVD business. With respect to the development of cash and cash equivalents, amounting to € 45.0 million and accounting for 35.9 % of the balance sheet total (2003: 24.6 %), reference is made to the comments on cash flow in the following section. Shareholders' equity rose by € 4.3 million to € 99.4 million. This development stemmed in particular from our net income of € 11.6 million and the dividend payment of € 6.1 million. Despite the increase in balance sheet total, the equity rate of 79.3 % remained constant. On the liabilities side, higher accrued liabilities (€ + 0.9 million) and higher customer deposits (€ + 0.9 million) were the primary reasons for the increase in the balance sheet total, in addition to the rise in shareholders' equity. Thanks to its above-average shareholders' equity, the Company is not dependent upon bank debt.

The development and composition of the individual items in the balance sheet are detailed in the Notes to the Financial Statements.

> Cash flow

Cash flow from operating activities amounted to € 26.3 million in 2004 (2003: € –13.4 million). In particular, this significant improvement was attributable to the fact that our cash flow the year before had been negatively impacted by the divestiture of cash and cash equivalents to the pension trust that was formed in 2003 (€ 36.0 million). The operative cash flow did not contain any extraordinary cash-relevant elements in 2004.

The determining factor in cash flow from investing activities in 2004 in the amount of € – 4.2 million (2003: € –10.8 million) was net cash used for capital expenditures (€ 3.4 million) and purchases of investment securities (€ 1.0 million), which was offset by minor net cash provided by the sale of fixed assets in the amount of € 0.2 million. The significant decline in net cash used, amounting to € 6.5 million, from the year before was in particular attributable to a special effect the year before (acquisition of a bank loan in the amount of € 9.0 million).

The dividend payment of € 6.1 million in 2004 for the year 2003 was the only factor that influenced net cash used in financing activities for the year 2004, which amounted to € – 6.1 million (2003: € –16.4 million). In addition to the dividend payment (€ 4.9 million), the primary factors that had impacted net cash used the year before were the redemption of a long-term loan (€ 9.0 million) as well as the stock buy-back (€ 2.4 million).

In 2004, cash and cash equivalents rose by a total of € 15.6 million, amounting to € 45.0 million on December 31, 2004. We thus continue to be in a position to generate sufficient cash from operating activities to finance our day-to-day business and investment projects.

> Purchasing

Developments on the international energy market again impacted the Company in the field of purchasing in 2004. Prices for natural gas and electricity continued to rise, for example, having a negative impact on our profitability. The same also applies with respect to the development of steel and aluminum prices. However by entering into long-term framework agreements, we succeeded in largely containing the price rises and assuring a supply of the raw materials required for manufacturing operations.

Business in Fiscal 2004

> Human resources and social aspects

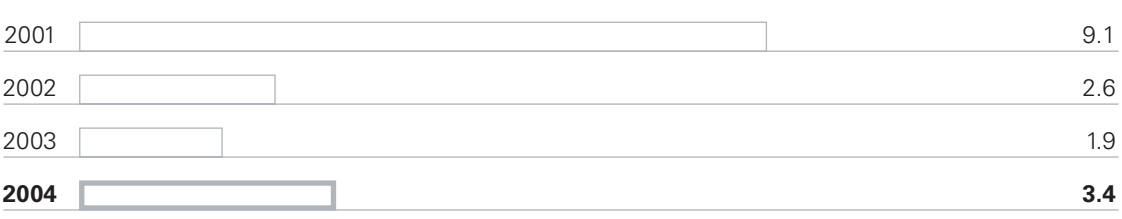
On December 31, 2004, the workforce totaled 745 people; this represents a reduction of 16 people or 2.1 %. On annual average, the workforce declined to 750 people, as opposed to 777 the year before. In particular, this reduction resulted from the expiration of temporary employment contracts as well as from both regular and early retirement.

Further details on the subject of human resources are contained in "Our People," which begins on page 58.

> Capital expenditures and financing

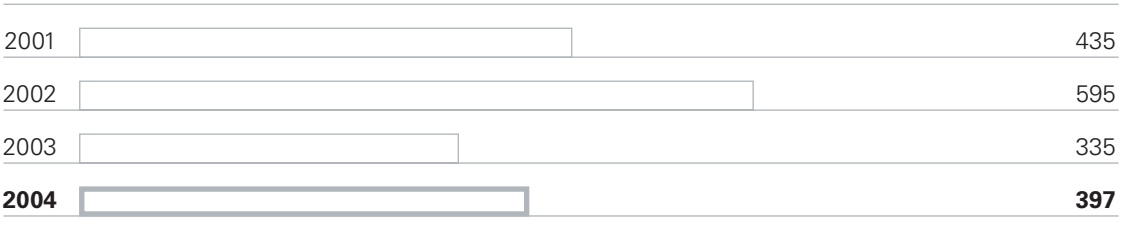
With the objective of securing the Company's future long term, capital expenditures were increased by € 1.5 million in fiscal 2004 to € 3.4 million, representing a rise of 77.4 %. Of the total amount, € 2.2 million was invested in machinery.

Capital Expenditures 2001 – 2004 (in € millions)



With an equity ratio of 79.3 %, our Company is financed virtually entirely through shareholders' equity in the long-term segment. The current asset ratio amounts to 397 % (2003: 335 %) and continues to stand for our sound financing concept and our high creditworthiness.

Current Assets Ratio 2001 – 2004 (in %)



> Research & Development

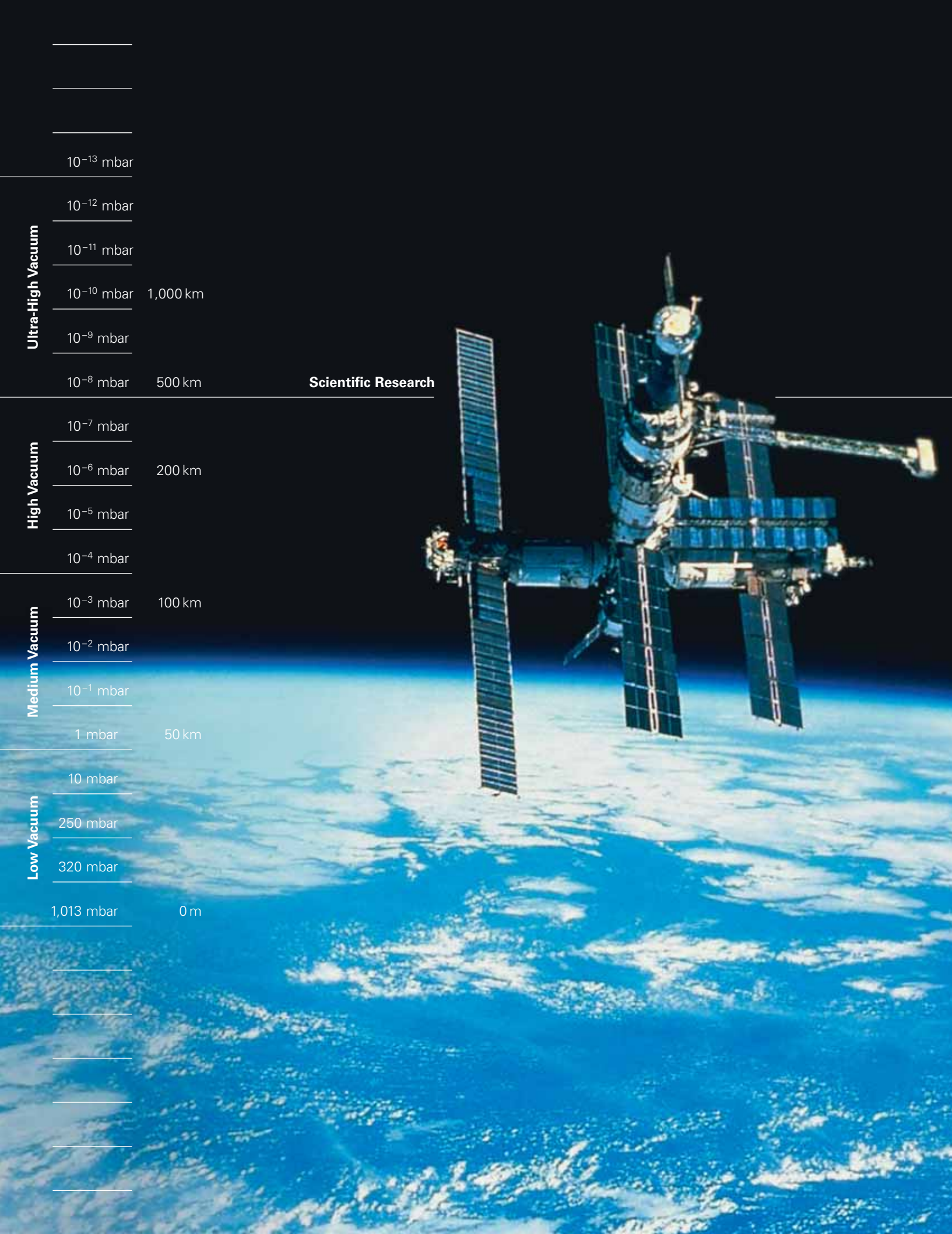
Our turbopump runs and runs, but it does not run by itself

Research & development is where the foundation for future sales is already being laid today. The consistently high percentage of sales accounted for by turbopumps is thus the result of the ongoing evolution of this product, always with the objective of even better satisfying the needs of our customers. And this naturally also holds true for all further Pfeiffer Vacuum products. Research and development expenses during the fiscal year – adjusted for the special item of our withdrawal from DVD business – continue to total € 8.9 million, documenting the important role of this work and underscoring its significance for the further development of the Company. Numerous new products that were brought to market in the year 2004, as well as eleven patent applications and eleven patents that were granted, represent the results of our efforts.

> Environment

Our environmental management system was reviewed within the scope of a follow-up audit in September 2004. The new certificate under ISO 14001:1996 was issued without restriction for a further three years.

Further details on the subject of environment are contained in "Environment, Safety and Quality," which begins on page 54.


Ultra-High Vacuum
High Vacuum
Medium Vacuum
Low Vacuum
10^{-13} mbar
10^{-12} mbar
10^{-11} mbar
10^{-10} mbar
1,000 km
10^{-9} mbar
10^{-8} mbar
500 km
Scientific Research
10^{-7} mbar
10^{-6} mbar
200 km
10^{-5} mbar
10^{-4} mbar
10^{-3} mbar
100 km
10^{-2} mbar
10^{-1} mbar
1 mbar
50 km
10 mbar
250 mbar
320 mbar
1,013 mbar
0 m

The Exosphere

The outermost layer of the earth's atmosphere begins at an altitude of around 500 to 1,000 km above the surface of the earth. This is where most satellites orbit. An altitude of between 5,000 and 10,000 km marks the transition to interplanetary space. The exosphere is part of the heterosphere, in which gases will separate out into layers on the basis of their atomic weights.

On earth, the pressure conditions that prevail in the exosphere are reproduced by the ultra-high vacuum of from 10^{-8} to 10^{-13} mbar that is required for space simulation and scientific research.

Risk Report

In order to be able to specifically deal with risks, we utilize and evolve suitable instruments for identification, analysis and control in our risk management system. We have defined the risk areas of risk management within the individual departments and have put in place the necessary procedures, early warning and monitoring systems. We take the risk factors we have defined into consideration in our annual budgeting process. The budget and our current business position are comprehensively deliberated with the Supervisory Board. Moreover, the Supervisory Board also receives monthly overviews of our financial results by region, as well as further reports from the Management Board.

> Overall economic risks, industry risks

As a globally operating enterprise, we are highly dependent upon the development of the world economy. Declining world economic growth has a direct impact on our sales and earnings. In addition, the strong competition that prevails in our market poses the risk of market share and name recognition losses. One risk that is often encountered in the vacuum industry is its pronounced dependency upon economic developments in the semiconductor industry.

Customer diversification translates into only a low dependency on the semiconductor industry

Through our ability to win new customers from the segments of Industrial, Analytical Industry and Coating, which was sustained in the 2004 fiscal year, we succeeded in continuing to remain independent of individual markets. We respond to negative changes in the economy through measures aimed at adjusting capacities as well as swift cost reduction. In addition, we constantly analyze our market environment and the competitive situation. Ongoing customer contact and the market intimacy that this brings with it supplies us with important information about the needs of our customers. This information enables us to develop and offer products that satisfy technological needs and thus further expand our competitive position and name recognition.

> **Technology risks**

The major risk factors here include insufficient innovativeness as well as a decline in the quality of our products.

With the objective of continuing to satisfy our customers' needs in the future, Pfeiffer Vacuum continuously invests in the development of new and innovative products. In fiscal 2004, we spent – adjusted for the special items related to the withdrawal from DVD business – a total of € 8.9 million on research & development (2003: € 8.9 million). This correlates to 5.7 % of sales – as opposed to 6.2 % the year before. Through these development expenses, we will continue to combat the risk of insufficient innovation. In addition, maintaining high standards of quality is a top priority for us as a manufacturer of high-tech quality products.

> **Purchasing and manufacturing risks**

Risks in the purchasing market exist in particular in the form of supply bottlenecks and dependence upon individual vendors. From a manufacturing standpoint, downtimes must be viewed as a major risk.

We primarily combat the risk of supply bottlenecks and vendor dependence by continuously reviewing alternative supplier options. Anticipated market shortages of raw materials, such as steel and aluminum, are combated through long-term framework contracts. Qualified technicians and modern production machinery keep technically related downtimes to a low level. Business interruption insurance is in force to cover the effects of downtimes resulting from storm or flood damage, for example.

> **Foreign exchange risks**

As a result of our pronounced international activities and the high percentage of export business that this involves, we are subject to a foreign exchange risk. With the United States accounting for € 33.1 million, or 21.2 %, of our sales, this applies in particular with respect to the exchange rate of the U.S. dollar.

The Company engages in active foreign exchange management for sales revenues in the United States: The Company enters into transactions in currency options and futures to hedge foreign exchange risks. The unanticipated development of the U.S. dollar relative to the euro during the second half of 2004 had a material impact on profitability, in spite of the above-described measures.

Risk Report

> Financial and liquidity risks

In what continues to be a tense overall economic situation, financial risks result from the insolvency of customers, in particular. Generally speaking, liquidity risks consist of the inability to satisfy payment obligations in a timely fashion.

We reduce creditworthiness risks, and thus accounts receivable losses, with the aid of a rigorous system of accounts receivable management and by monitoring our customers' payment patterns. Moreover, our dependence upon individual customers is very limited, as no end customer accounts for more than 5 % of our total sales. To steer liquidity, a cash management system is in place between the German companies, which assures the companies a sufficient supply of cash. Overall, we possess sufficient liquid assets to finance our operative business, to cushion negative developments and to continue to grow from within.

> Human resources risks

As a high-tech manufacturer, we are dependent upon the high level of training and education of qualified employees and are threatened by the risk of losing them.

The training and education of young, qualified employees serves to minimize the strategic risk. To minimize the operative risk, we provide continuing training and education for our employees and foster their self-direction in order to create incentives and promote the ideas of our people. We view an attrition rate of less than 1 %, which is well below the industry average, as a positive signal.

Attrition rate significantly below the industry average

> Information technology risks

The major information technology risks are loss of data and system outages. Moreover, risks also exist in the form of unauthorized access to enterprise data by hackers and the infestation of hardware and software with computer viruses.

We keep the risk of data losses to a minimum by performing daily backups of our complete enterprise data. Our enterprise database, in particular, with which manufacturing operations, materials management, order handling, financial and cost accounting are handled, is subject to a high security standard. All files created by our employees within the server environment are also backed up on a daily basis.

Our backup copies are stored in secure, fireproof locations. The activities of our in-house support team reduce system outages to a low level. The Company uses regularly updated virus scanners and modern firewalls to protect its hardware and software against the risk of computer viruses and hacking.

> Legal risks

As an internationally operating enterprise, we are subject to a variety of legal risks. International contract law and taxation are of particular significance, as they can have a direct impact on the Company's earnings or financial positions.

The professional expertise required for assessing the Company's day-to-day business is provided by our qualified staff. To further minimize risk, we draw upon the assistance of external legal and tax advisors in connection with complex questions and/or out-of-the-ordinary occurrences. No legal disputes are currently pending whose outcome could have a material impact on the Company's earnings or financial position.

> Overall statement regarding the risk management system

We are of the opinion that the risk management system that has been established, consisting of the methods and instruments described in connection with the individual types of risks, is suitable for identifying, analyzing and quantifying existing risks in order to adequately control them. In connection with the audit of the annual financial statements, our auditor has reviewed the risk management system that has been established. This review did not result in any objections.

In summary, it is our conviction that no risks exist which could endanger the Company's survival, neither for the current year nor for the following years.

Early 2005 and Outlook

> Early 2005

With the exception of the decision to withdraw from DVD business, there have been no significant changes in the Company's position or the industry environment since the beginning of the 2005 fiscal year.

> Outlook

The leading economic experts anticipate world economic growth of around 4 % for the year 2005, and thus a continuation of the global economic upswing, however with only a moderate dynamic. The American and the Asian economies will have a major influence on the development of the world economy.

Given this background, we anticipate that sales and profitability will develop on a stable basis overall. We expect to see moderate growth in the semiconductor, coating and industrial as well as chemical and process technology market segments, while according to our assessments sales will rise disproportionately in the analytical industry. However an unfavorable development of the exchange rate of the U.S. dollar for us could pose the risk that some of this growth might be offset by negative foreign exchange rate effects.

We further anticipate that the development of operating expenses will fundamentally parallel that of sales. Due to shortages of steel and aluminum, it is presently not possible to make a final judgment as to how the market prices for these raw materials will develop. With the objective of keeping these costs largely constant, one of the measures we have taken is to enter into long-term framework agreements with our vendors.

Our withdrawal from DVD business will have a positive impact on Pfeiffer Vacuum's profitability in 2005. We do not expect any material negative impact from this move, as all presently identified risks have been reflected in the 2004 Consolidated Financial Statements. This move did not have any major impact on cash and cash equivalents in 2004, nor do we expect this to be the case in 2005.

We continue to view research & development costs as an investment in the future. With the objective of remaining competitive and expanding market share, we will continue to identify market needs early on and satisfy them through customer-driven new developments. In order to achieve this objective, we will continue to maintain a high ratio of research & development expenditures relative to total sales.

The proposal by the Management and Supervisory Boards relating to the appropriation of retained earnings calls for proposing to the Annual Shareholders Meeting that our shareholders should again participate disproportionately in the Company's success in 2004. Under this proposal, the base dividend will be € 0.40 and the bonus dividend € 0.50 per share of no-par stock. A total of € 7.8 million will thus be distributed to our shareholders.

The liquidity generated by regular business operations will continue to enable us to make all necessary investments from within and further optimize our business processes.

With motivated, well trained and educated people, a customer-driven product portfolio, creative developers and a flexible manufacturing operation, in the future vacuum will continue to be everything to us!

Consolidated Financial Statements

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Independent Auditor's Report Page 121

Florian Henss (25) *XtraDry™ Product Manager, with the Company for the past 3 years*

Balance Sheets in K €

December 31,	Note	2004	2003
Assets			
Cash and cash equivalents		44,986	29,432
Trade accounts receivable	1	18,967	22,224
Other accounts receivable	2	4,062	2,125
Inventories	3	14,865	20,360
Investment securities	5	9,000	–
Prepaid expenses		541	593
Deferred tax assets, net	9	774	1,016
Other current assets		564	920
Total current assets		**93,759**	76,670
Property, plant and equipment	4	24,098	25,734
Investment securities	5	1,002	9,000
Prepaid pension cost	11	2,817	2,819
Deferred tax assets, net	9	2,328	3,323
Goodwill	6	–	1,037
Other assets		1,229	1,197
Total non-current assets		**31,474**	43,110
Total assets		**125,233**	119,780
Liabilities and shareholders' equity			
Trade accounts payable		2,988	4,153
Accrued liabilities	8	9,645	8,758
Income tax liabilities	9	5,720	6,643
Customer deposits		1,911	1,051
Other payables		3,365	2,252
Total current liabilities		**23,629**	22,857
Convertible bonds	10	794	845
Accrued pension	11	1,455	1,041
Total non-current liabilities		**2,249**	1,886
Share capital		22,504	22,504
Additional paid-in-capital		2,821	2,821
Retained earnings		79,256	73,713
Accumulated other comprehensive loss		–2,788	–1,563
Treasury stock, at cost		–2,438	–2,438
Total shareholders' equity	12	**99,355**	95,037
Total liabilities and shareholders' equity		**125,233**	119,780

Statements of Income in K €

	2004[1]	**2004**	2003
Net sales	156,222	156,222	144,018
Cost of sales	– 87,814	– 93,906	– 81,721
Gross profit	68,408	**62,316**	62,297
Selling and marketing expenses	– 19,767	– 20,021	– 20,941
General and administrative expenses	– 12,737	– 13,960	– 12,950
Research and development expenses	– 8,919	– 10,250	– 8,928
Operating profit	26,985	**18,085**	19,478
Interest expense	– 83	– 83	– 246
Interest income	1,247	1,247	1,803
Foreign exchange gain	377	377	2,142
Income before income tax	28,526	**19,626**	23,177
Current	– 10,238	– 6,868	– 11,544
Deferred	– 1,132	– 1,132	1,113
Income taxes	– 11,370	**– 8,000**	– 10,431
Net income	17,156	**11,626**	12,746
Earnings per share (in €)			
Basic	1.97	1.34	1.46
Diluted	1.97	1.34	1.46

[1] Development of profitability adjusted to reflect the special item resulting from the closure of DVD business; this supplementary information is unaudited and not subject to mandatory reporting under U.S. GAAP.

Statements of Shareholders' Equity in K €

	2004	2003	2002
Shareholders' equity at January 1	95,037	92,508	83,402
Share capital			
Balance at January 1	22,504	22,504	22,504
Increase in share capital	–	–	–
Bonds converted	–	–	–
Balance at December 31	22,504	22,504	22,504
Additional paid-in capital			
Balance at January 1	2,821	2,821	2,821
Increase in share capital	–	–	–
Bonds converted	–	–	–
Balance at December 31	2,821	2,821	2,821
Retained earnings			
Balance at January 1	73,713	65,870	53,258
Net income	11,626	12,746	17,535
Dividends paid	– 6,083	– 4,903	– 4,923
Balance at December 31	79,256	73,713	65,870
Minimum pension liability			
Balance at January 1	– 64	– 656	–
Components of other comprehensive income	– 100	592	– 656
Balance at December 31	– 164	– 64	– 656
Cumulative translation adjustment			
Balance at January 1	– 2,049	1,560	4,628
Components of other comprehensive income	– 765	– 3,609	– 3,068
Balance at December 31	– 2,814	– 2,049	1,560
Unrealized gain/loss on hedges			
Balance at January 1	550	409	191
Components of other comprehensive income	– 360	141	218
Balance at December 31	190	550	409
Treasury stock			
Balance at January 1	– 2,438	–	–
Additions	–	– 2,438	–
Balance at December 31	– 2,438	– 2,438	–
Total shareholders' equity at December 31	**99,355**	95,037	92,508

Statements of Cash Flow in K €

	2004	2003
Net income	11,626	12,746
Depreciation	4,868	3,959
Loss on goodwill impairment	1,037	–
Loss on disposal of fixed assets	7	350
Change in deferred taxes	1,132	–1,113
Provision for doubtful accounts	2,563	824
Write-down of DVD inventories	5,276	–
Effects of changes in operating assets and liabilities		
Trade accounts receivable	451	–2,130
Other accounts receivable	–1,940	1,021
Inventories	82	1,480
Prepaid expenses	51	–65
Other current assets	268	–292
Other long-term assets	–303	–2,894
Accrued pension liabilities	356	4,482
Pension trust	2	–35,955
Trade and other accounts payable	–48	746
Income tax liabilities	–926	4,435
Accrued other liabilities	958	–181
Customer deposits	850	–859
Net cash provided by (used in) operating activities	**26,310**	–13,446
Proceeds from disposals of fixed assets	161	165
Capital expenditures	–3,400	–1,917
Purchase of investment securities	–1,002	–9,000
Net cash used in investing activities	**–4,241**	–10,752
Repayments of borrowings	–	–9,037
Dividend payment	–6,083	–4,903
Bonds payable repayments	–	–12
Purchase of treasury stock	–	–2,438
Net cash used in financing activities	**–6,083**	–16,390
Effects of foreign exchange rate changes on cash and cash equivalents	–432	–2,244
Net increase (decrease) in cash and cash equivalents	**15,554**	–42,832
Cash and cash equivalents at beginning of year	29,432	72,264
Cash and cash equivalents at end of year	**44,986**	29,432
Convertible bonds and employee loans (non-cash transaction)	–51	–154
Cash paid for interest	79	170
Cash paid for taxes	9,663	6,719

Schedule of Fixed Assets in K €

	Acquisition or Manufacturing Cost				
	Balance at Jan. 1, 04	Currency Change	Additions	Disposals	Balance Dec. 31, 04
Patents, licenses, trademarks, and similar rights and assets, including licenses for such rights and assets	2,609	– 19	245	110	2,725
Goodwill	1,227	–	–	–	1,227
Intangible assets – minimum pension liability	6	–	218	4	220
Intangible assets	**3,842**	**– 19**	**463**	**114**	**4,172**
Land, leasehold improvements and buildings including buildings on land owned by others	30,599	– 2	–	–	30,597
Other equipment, factory and office equipment	17,401	– 56	967	2,650	15,662
Technical equipment and machinery	25,031	– 4	2,186	1,324	25,889
Property, plant and equipment	**73,031**	**– 62**	**3,153**	**3,974**	**72,148**
Notes receivable	9,000	–	1,006	9,000*	1,006
Other assets	755	–	2	173	584
Investments and long-term financial assets	**9,755**	**–**	**1,008**	**9,173**	**1,590**
Total fixed assets	**86,628**	**– 81**	**4,624**	**13,261**	**77,910**

* Reclassification into current assets

Depreciation/Amortization					Net Book Value	
Balance at Jan. 1, 04	Currency Change	Additions	Disposals	Balance Dec. 31, 04	Dec. 31, 04	Dec. 31, 03
2,387	– 19	192	110	2,450	275	222
190	–	1,037	–	1,227	–	1,037
–	–	–	–	–	220	6
2,577	**– 19**	**1,229**	**110**	**3,677**	**495**	**1,265**
13,718	– 1	870	–	14,587	16,010	16,881
13,758	– 59	1,061	2,482	12,278	3,384	3,643
20,043	– 4	2,745	1,324	21,460	4,429	4,988
47,519	**– 64**	**4,676**	**3,806**	**48,325**	**23,823**	**25,512**
–	–	4	–	4	1,002	9,000
–	–	–	–	–	584	755
–	**–**	**4**	**–**	**4**	**1,586**	**9,755**
50,096	**– 83**	**5,909**	**3,916**	**52,006**	**25,904**	**36,532**

Notes to the Financial Statements

> The Company and Basis of Presentation

Pfeiffer Vacuum is a full-line manufacturer in the vacuum technology business offering solutions for a variety of customer applications relating to the generation, control and measurement of vacuum. The products developed and manufactured at the production facility in Asslar, Germany, include turbomolecular pumps, a range of backing pumps, such as rotary vane, Roots and dry pumps, complete pumping stations, as well as customized vacuum systems and components. Systems include the so called DVD business, a business unit that developed and produced manufacturing lines for DVDs and which is discontinued in January 2005.

Pfeiffer Vacuum distributes its products through a network of its own sales offices and subsidiaries, as well as independent marketing agents. Moreover, there are service support centers in most major industrial locations throughout the world. The Company's primary markets are located in Europe, the United States and Asia.

The consolidated financial statements of Pfeiffer Vacuum Technology AG and its subsidiaries ("the Company" or "Pfeiffer Vacuum") have been prepared in accordance with United States Generally Accepted Accounting Principles (U.S. GAAP).

§ 292a of the German Commercial Code ("HGB") obviates the requirement to prepare consolidated financial statements according to HGB if consolidated financial statements prepared according to international accounting standards are of the same value and meaningfulness as consolidated accounts prepared in accordance with HGB. U.S. GAAP is one of the recognized international accounting standards.

Pfeiffer Vacuum presents its consolidated financial statements in euros (€).

> Consolidated Companies and Principles of Consolidation

All companies which Pfeiffer Vacuum Technology AG directly or indirectly controls are consolidated. The Company is considered to control an entity if it either directly or indirectly holds a majority of the voting rights and can therefore exercise a controlling influence. In addition to Pfeiffer Vacuum Technology AG, two German (2003: 2) and twelve foreign subsidiaries (2003: 14) are fully consolidated in the Company's consolidated financial statements.

In the year 2004, Pfeiffer Vacuum Systems (International) AG, Zuzwil, Switzerland, was merged with Pfeiffer Vacuum (Schweiz) AG, Zurich, Switzerland. Pfeiffer Vacuum Asia Ltd., Hong Kong, China, ceased all business activities and was closed.

All material intercompany receivables and liabilities, gains and losses, revenues and expenses are eliminated as part of the consolidation process.

Pfeiffer Vacuum Group

Subsidiaries	Location	Holdings %	Share-holders' Equity* K €	Net Income/ Loss* K €	Net Sales* K €
Pfeiffer Vacuum Technology AG	D-Asslar				
Pfeiffer Vacuum GmbH	D-Asslar	100.0	36,049	27,377**	114,425
Pfeiffer Vacuum Austria GmbH	A-Vienna	100.0	913	328	8,098
Pfeiffer Vacuum (Schweiz) AG	CH-Zurich	99.4	1,847	1,098	8,787
Pfeiffer Vacuum Systems GmbH	D-Asslar	100.0	2,427	–17,760**	4,688
Pfeiffer Vacuum France SAS	F-Buc	100.0	1,051	46	4,779
Pfeiffer Vacuum Ltd.	GB-Newport	100.0	1,068	329	5,356
Pfeiffer Vacuum Nederland B.V.	NL-De Meern	100.0	2,235	440	6,700
Pfeiffer Vacuum Scandinavia AB	S-Upplands Väsby	100.0	1,691	458	4,819
Pfeiffer Vacuum Inc.	USA-Nashua	100.0	11,084	1,790	33,316
Pfeiffer Vacuum Holding B.V.	NL-De Meern	100.0	2,319	43	–
Pfeiffer Vacuum Belgium N.V.	B-Temse	100.0	1,208	123	3,363
Pfeiffer Vacuum Italia S.p.A.	I-Rho	100.0	2,066	182	4,566
Pfeiffer Vacuum (India) Ltd.	IND-Secunderabad	73.0	463	84	625
Pfeiffer Vacuum Korea Ltd.	KR-Yoinin City, Kyungki-Do	75.5	1,306	304	4,306

* Amounts reflect the local individual U.S. GAAP year-end reports

** Before profit or loss transfer

Notes to the Financial Statements

Use of Estimates The preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the amounts of assets and liabilities on the date of the financial statements and the reported amounts of revenues and expenses during the reporting period that are reported in the financial statements and accompanying notes. These estimates and assumptions could differ from the actual results.

Reclassifications Certain prior-year amounts have been reclassified to provide comparability with the presentation of the current-year financial statements.

Foreign Currency Translation The financial statements of the Company's foreign subsidiaries have been translated into euros (€) in accordance with Statement of Financial Accounting Standards ("SFAS") 52, "Foreign Currency Translation." The functional currency of all of the Company's foreign subsidiaries is the applicable local currency in which that entity conducts its business. When translating foreign functional-currency financial statements, year-end exchange rates are applied to the assets and liabilities, while average annual exchange rates are applied to income statement accounts. The resulting translation adjustments are recorded as accumulated other comprehensive income (loss).

Foreign currency transaction gains and losses are recorded as a separate line item in the income statement.

The exchange rates of the significant currencies of non-euro countries included in the Company's consolidated financial statements were as follows:

Exchange rate at December 31 (per euro):

		2004	2003
U.S.A.	USD	1.36400	1.26100
Great Britain	GBP	0.70710	0.70700
Switzerland	CHF	1.54370	1.55900
Sweden	SEK	9.02000	9.07100

Annual average exchange rate (per euro):

		2004	2003
U.S.A.	USD	1.24335	1.13087
Great Britain	GBP	0.67869	0.69185
Switzerland	CHF	1.54415	1.52064
Sweden	SEK	9.12603	9.12279

> Accounting and Valuation Methods

Revenue Recognition Revenue for product sales is recognized when persuasive evidence of an agreement exists, delivery has occurred, the price is fixed or determinable and collection of the related receivable is reasonably assured. If product sales are subject to customer acceptance, revenues are not recognized until customer acceptance has occurred. For product sales which require the Company to install the product at the customer location, revenue is recognized when the equipment has been delivered to and installed at the customer location, provided the product sale does not qualify for separation from the service element and recognition of revenue upon delivery of the product. For contracts including multiple deliverables meeting the separation criteria of Emerging Issues Task Force ("EITF") No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables," the Company allocates the total arrangement consideration to each separate unit of accounting based on the relative fair values of the deliverables in each unit of accounting and recognizes revenue based on the Company's revenue recognition policy applicable to each separate unit of accounting. Revenues from services are recognized when the underlying services are performed.

Warranty accruals are established in the period in which the related product revenue is recognized. Management's estimates are primarily based on an assessment of specific exposure and historical experience by product type.

Cash and Cash Equivalents The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents.

Trade Accounts Receivable Trade accounts receivable are recorded at the invoiced amount and typically do not bear interest. The Company continually assesses the adequacy of the allowance for doubtful accounts receivable and makes adjustments as appropriate based on both specific identification and aging distribution of receivables. The Company writes off accounts only after all means of collection have been exhausted.

Investment Securities Debt securities which the Company has the ability and positive intent to hold to maturity are carried at amortized cost. Investments and maturities of less than one year are classified as current.

Derivatives and Hedging Transactions The Company recognizes derivative financial instruments either as assets or liabilities at their fair values. Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized through current income. If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of the underlying transaction are either offset against changes in the fair value of the hedging instrument in current income or changes in the fair value of the derivative are recognized in other comprehensive income until the hedged item is recognized in income.

Notes to the Financial Statements

Inventories Inventories are stated at the lower of cost or market. Cost is determined using the first-in, first-out-method.

Property, Plant and Equipment Property, plant and equipment are stated at cost and depreciated over the estimated useful lives of the assets on a straight-line basis. The following useful lives are used:

• Buildings	20 – 50 years
• Machinery and equipment	3 – 15 years

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If impairment indicators exist, the Company performs the required analysis and records impairment charges in accordance with SFAS 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." Repair and maintenance costs are expensed as incurred.

Goodwill and Other Intangible Assets Effective January 1, 2002, goodwill and intangible assets other than goodwill which are determined to have indefinite useful lives are no longer amortized, but are subject to impairment analysis annually or if an event occurs or circumstances indicate the carrying amount may be impaired. Goodwill impairment testing is performed at the reporting unit level. The fair value of each reporting unit is determined using a discounted cash flow analysis and compared to the carrying value. If the carrying value exceeds the fair value, then a possible goodwill impairment exists and further evaluation is required. Arising impairment charges are recorded in the income statements.

The Company amortizes intangible assets with finite useful lives on a straight-line basis over their respective estimated useful lives to their estimated residual values. Estimated useful lives for software, patents, licenses and other similar rights generally range from three to five years.

Accounting for Stock-Based Compensation The Company applies the intrinsic value-based method in accordance with Accounting Principles Board ("APB") Opinion 25 "Accounting for Stock Issued to Employees" for its stock-based compensation plans. Under APB 25, compensation expense is recorded on the measurement date only if the current market price of the underlying stock exceeds the exercise price (see Note 10).

Pensions The measurement of pensions is based upon the projected unit credit method in accordance with SFAS 87, "Employers' Accounting for Pensions." As permitted under SFAS 87, changes in the amount of either the projected benefit obligation (for pension plans) or plan assets resulting from experience different than that assumed and from changes in assumptions can result in gains and losses not yet recognized in the Company's consolidated financial statements. The expected return on plan assets is determined based on the expected long-term rate of return on plan assets and the fair value or market-related value of plan assets. Amortization of an unrecognized net gain or loss is included as a component of the Company's net periodic benefit plan cost for a year if, as of the beginning of the year, that unrecognized net gain or loss exceeds 10 % of the greater of 1) the projected benefit obligation or 2) the fair value or market-related value of the plan's assets. In such case, the amount of amortization recognized by the Company is the resulting excess divided by the average remaining service period of active employees expected to receive benefits under the plan.

In December 2003, the FASB issued SFAS 132, "Employers' Disclosure about Pensions and Other Postretirement Benefits – an amendment of FASB No. 87, 88 and 106," which requires additional disclosures about the Company's defined benefit plans and other postretirement obligations, plan assets, net costs and net cash flows. For non-U.S. plans, adoption is permitted for fiscal years ending after June 15, 2004. The adoption of SFAS 132 had no material impact on the Company's consolidated financial statements.

Research & Development All research and development costs are expensed as incurred.

Advertising All advertising and promotional costs are expensed as incurred.

Income Taxes Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax loss carry-forwards. The effect of a change in tax laws on deferred tax assets and liabilities is recognized in the results of operations in the period in which the new tax rates are enacted. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized.

Notes to the Financial Statements

> Adoption of New Accounting Rules

On December 16, 2004, the FASB issued FASB Statement 123 (revised 2004), "Share-Based Payment," which is a revision of FASB Statement 123, "Accounting for Stock-Based Compensation." Statement 123(R) supersedes APB Opinion 25, "Accounting for Stock Issued to Employees," and amends FASB Statement 95, "Statement of Cash Flows." Generally, the approach in Statement 123(R) is similar to the approach described in Statement 123. However Statement 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative. Statement 123(R) must be adopted in the first interim or annual period beginning after June 15, 2005. Early adoption will be permitted in periods in which financial statements have not yet been issued. The Company plans to adopt Statement 123(R) on July 1, 2005, using the modified-retrospective method, restating only the prior interim periods of 2005. As permitted by Statement 123, the Company currently accounts for share-based payments to employees using Opinion 25's intrinsic value method and, as such, generally recognizes no compensation cost for employee stock options. Accordingly, the adoption of Statement 123(R)'s fair value method will not have a significant impact on the Company's result of operations, and it will have no impact on its overall financial position. The impact of adoption of Statement 123(R) cannot be predicted exactly at this time because it will depend on levels of share-based payments granted in the future. However had Pfeiffer Vacuum adopted Statement 123(R) in prior periods, the impact of that standard would have approximated the impact of Statement 123 as described in the disclosure of pro forma net income and earnings per share in Note 10 to its consolidated financial statements. Statement 123(R) also requires the benefits of tax deductions in excess of recognized compensation cost to be reported as a financing cash flow, rather than as an operating cash flow as required under current literature. This requirement will reduce net operating cash flows and increase net financing cash flows in periods after adoption. While the company cannot estimate what those amounts will be in the future (because they will depend upon, among other things, when employees exercise stock options), the amounts of operating cash flows recognized in prior periods for such excess tax deductions were K € 475 and K € 678 in 2004 and 2003, respectively.

In December 2003, the FASB issued FIN 46R, "Consolidation of Variable Interest Entities," which addresses how a business enterprise should evaluate whether it has a controlling financial interest in an entity through means other than voting rights and accordingly should consolidate the entity. FIN 46R replaces FASB Interpretation No. 46, "Consolidation of Variable Interest Entities," which was issued in January 2003. The provisions of FIN 46R had to be applied to special-purpose entities as of December 31, 2003, and to all other entities as of March 31, 2004. The Company does not hold variable interests in special-purpose entities. The adoption of FIN 46R did not have any impact on the Company's consolidated financial statements.

> Notes to the Consolidated Balance Sheets and Consolidated Statements of Income

1. Trade Accounts Receivable

Trade accounts receivable consist of the following (in K €):

	2004	2003
Trade accounts receivable	21,838	23,977
Allowance for doubtful accounts	–2,871	–1,753
Total trade accounts receivable, net	**18,967**	22,224

Dec. 31

The Company provides credit in connection with its normal course of business to a wide variety of customers. The Company performs ongoing credit evaluations of its customers and establishes allowances for identified credit risks. The trade accounts receivable have a remaining term of less than one year.

Summary of activity in the allowance for doubtful accounts (in K €):

	2004	2003
Balance at beginning of year	1,753	1,738
Provisions	2,563	824
Accounts written off	–298	–233
Collections on previously reserved accounts	–1,147	–576
Balance at end of year	**2,871**	1,753

At December 31, 2004, € 1.8 million of the allowance for doubtful accounts related to collectibility issues in the Germany operating segment, specifically to DVD business.

2. Other Accounts Receivable Other accounts receivable primarily consist of income taxes receivable from the German tax authorities in the amount of approximately € 3.0 million for overpaid income taxes, and Value Added Tax claims in the amount of approximately € 0.6 million.

Notes to the Financial Statements

3. Inventories

Inventories consist of the following (in K €):

	2004	2003
Raw materials	7,021	7,648
Work-in-process	9,992	8,848
Finished products	8,876	8,749
Reserves	–11,024	–4,885
Total inventories, net	**14,865**	20,360

Dec. 31

Summary of activity in the inventory reserves (in K €):

	2004	2003
Balance at beginning of year	4,885	5,194
Provisions	6,608	336
Inventory written off	–469	–645
Balance at end of year	**11,024**	4,885

At December 31, 2004, approximately € 5.3 million of inventory reserves related to the withdrawal from DVD business.

4. Property, Plant and Equipment and Intangible Assets The development of the Company's fixed assets is shown in the consolidated statement of fixed assets. In 2004, the Company recorded impairment charges of approximately € 1.4 million related to its withdrawal from DVD business.

5. Investment securities

Investment securities consist of the following (in K €):

	2004			2003		
	Amortized Cost	Fair Value	Unrealized Holding Loss	Amortized Cost	Fair Value	Unrealized Holding Loss
Current investment securities	9,000	8,982	18	–	–	–
Non-current investment securities	1,002	1,000	2	9,000	8,705	295
Total investment securities	**10,002**	**9,982**	**20**	**9,000**	**8,705**	**295**

Dec. 31

The Company considers these impairments to be temporary given the short duration of the respective declines in value and because no facts or circumstances have indicated that such declines are other than temporary. The Company expects the repayment of its investment security amounting to € 9.0 million according to the notes of the investment by the issuer through 2005 and reclassified it from non-current to current.

6. Goodwill In 2004, the Company recorded goodwill impairment charges in the amount of approximately € 1.0 million due to the impairment of its capitalized goodwill.

7. Long-Term Debt The Company had no long-term debt as of December 31, 2004. Pfeiffer Vacuum and its subsidiaries have various lines of credit available for operating purposes in the amount of approximately € 11.8 million (2003: € 12.3 million). For guarantee commitments, an amount of € 0.9 million (2003: € 0.8 million) was drawn on these credit lines as of December 31, 2004.

8. Accrued Liabilities

Accrued liabilities consist of the following (in K €):

	2004	2003
Warranty	2,993	3,625
Employee-related expenses	5,912	4,492
Other	740	641
	9,645	8,758

Dec. 31

Employee related costs primarily include accruals for vacation pay, bonuses, accrued overtime and service anniversary awards.

Warranty provisions consist of the following (in K €):

	2004	2003
Balance at beginning of year	3,625	3,774
Provisions	1,346	2,555
Utilization	– 864	– 2,070
Releases	– 1,114	– 634
Balance at end of year	**2,993**	3,625

Notes to the Financial Statements

9. Income Taxes Under current German corporate tax law, taxes on income are composed of corporate taxes, trade taxes and an additional surtax, which amount to a combined tax rate of 37.9 % for the German companies for the year 2004 and 39.5 % for the year 2003.

Effective January 1, 2002, a corporation and trade tax entity with corresponding profit and loss transfer agreements was established for the consolidated German companies.

Income before income tax was taxable in the following jurisdictions (in K €):

	2004	2003
Germany	12,334	12,868
Outside Germany	7,292	10,309
	19,626	23,177

The components of the provision for income taxes are as follows (in K €):

	2004	2003
Current		
Germany	4,464	8,783
Outside Germany	2,404	2,761
	6,868	11,544
Deferred		
Germany	754	– 800
Outside Germany	378	– 313
	1,132	– 1,113
Provision for income taxes	**8,000**	10,431

The Company's net deferred tax assets were as follows (in K €):

	2004	2003
Deferred tax assets		
Pensions	2,029	2,966
Inventory	607	430
Intangible assets	400	518
Tax loss carry-forward	207	532
Derivatives	–	348
Other	285	349
	3,528	5,143
Deferred tax liabilities		
Property, plant and equipment	– 308	– 693
Derivatives	– 116	–
Other	– 2	– 111
	– 426	– 804
Net deferred tax assets	**3,102**	4,339

Dec. 31

Net deferred income tax assets and liabilities in the consolidated balance sheet (in K €):

	2004	2003
Deferred taxes, short-term		
Deferred tax assets	892	1,127
Deferred tax liabilities	– 118	– 111
	774	1,016
Deferred taxes, long-term		
Deferred tax assets	2,636	4,016
Deferred tax liabilities	– 308	– 693
	2,328	3,323
Deferred tax assets, net	**3,102**	4,339

Dec. 31

Notes to the Financial Statements

Reconciliation of income taxes determined using the statutory rate to actual income taxes provided:

	2004	2003
Income tax expenses at German statutory rate	7,432	9,146
Lower foreign tax rates	–78	–507
Loss carry-forwards of a non-German subsidiary	–325	532
Taxes due to new legislation on distributed earnings in prior years	–	865
Taxes due to dividend payments	11	336
Tax debits/credits due to tax filings in prior years	–24	–3
Impairment of Goodwill	393	–
Non-deductible expenses	281	245
Other	310	–183
Provision for income taxes	**8,000**	10,431

As of December 31, 2004, the Company had net operating loss carry-forwards of a non-German subsidiary amounting to € 0.8 million which may be used to offset future taxable income and will expire if not used by 2008.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. In making this assessment, management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies. Based on the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, management believes that it is more likely than not that the Company will realize the benefits of these deductible differences.

Provision has not been made for additional taxes on undistributed earnings of non-German subsidiaries. These earnings are considered to be permanently reinvested and could become subject to additional tax if remitted or deemed remitted as dividends; however calculation of such additional tax is not practical. Following recent changes in German law, dividends from non-German subsidiaries are only 95 % tax-exempt, i.e. 5 % of dividend income is not deductible from income for corporate tax purposes for fiscal years beginning in 2003. Management estimates

that the effects of this new rule will be negligible, since the German investments are consolidated for tax purposes. In addition, a 5 % income inclusion has also been introduced on capital gains realized from the disposition of shares in German and non-German corporations, which applies to fiscal years ending in 2004 and thereafter. Management does not expect significant additional income taxation.

Beginning in 2004, the Company was subject to a tax audit of the German tax authorities. This tax audit is still not finalized. Pfeiffer Vacuum does not expect material effects from the outcome on its Consolidated financial statements.

10. Stock-Based Compensation

Employee Participation Program, Term: 2000 through 2005 Within the scope of an employee participation program, in July 2000 the Company issued 4,400 convertible bonds having an aggregate principal amount of € 0.6 million to members of management and salaried employees of the Company in Germany and other countries. The conversion feature entitles the bearer to convert each bond into 50 no-par ordinary shares of the Company. The conversion price is based upon 110 % of the average closing price on the Frankfurt Stock Exchange for the last ten trading days prior to the resolution by the Management Board to issue the convertible bonds. Accordingly, the conversion price for the July 2000 issue was set at € 48.03 per share. There were 120,000 option shares relating to convertible bonds for the 2000 issue outstanding at December 31, 2004, and December 31, 2003. Fair value at the date of grant was € 10.64 per ordinary share option.

Beginning in July 2002, each holder of convertible bonds could convert up to 30 % of such bonds to ordinary shares, in July 2003 up to 60 % and in July 2004 up to 100 %. The final conversion date is December 9, 2005. Conversion is only possible during specific periods of time.

The convertible bonds bear interest at 6 % p.a. and are redeemable at their principal amount on December 10, 2005, unless previously converted or called. The bonds may be called by the Company at their principal amount upon termination of employment. Employees were given the opportunity of financing the purchase of the convertible bonds through interest-bearing employee loans. These loans bear interest at the same fixed rate as the bonds, have identical terms, are classified as other non-current assets in the balance sheet and are repayable upon conversion of the bonds or if the bonds are called by the Company upon termination of employment. There is a right of setoff for both principal and interest between the loan and the bond.

As of December 31, 2004, employees had returned 2,000 of these convertible bonds having an aggregate principal value of € 256,000 and repaid the corresponding employee loans.

Notes to the Financial Statements

Employee Participation Program, Term: 2002 through 2007 Within the scope of a further employee participation program, on July 7, 2002, the Company issued 4,600 convertible bonds having an aggregate principal amount of € 0.6 million to members of management and salaried employees of the Company in Germany and other countries. The conversion feature entitles the bearer to convert each bond into 50 no-par ordinary shares of the Company.

The conversion price is based upon 110 % of the average closing price on the Frankfurt Stock Exchange for the last ten trading days prior to issuance. The conversion price for the July 2002 issue was set at € 42.86 per share. There were 190,000 and 210,000 option shares relating to the convertible bonds for the 2002 issue outstanding at December 31, 2004, and December 31, 2003, respectively. Fair value at the date of grant was € 10.35 per ordinary share option.

Each holder of convertible bonds can convert up to 30 % of such bonds to ordinary shares subsequent to the Annual Shareholders Meeting in 2004, up to 60 % following the Annual Shareholders Meeting in 2005 and up to 100 % following the Annual Shareholders Meeting in 2006. The final conversion date is December 9, 2007. Conversion is only possible during specific periods of time.

The convertible bonds bear interest at 6 % p.a. and are redeemable at their principal amount on December 10, 2007, unless previously converted or called. The bonds may be called by the Company at their principal amount upon termination of employment. Employees were given the opportunity of financing the purchase of the convertible bonds through interest-bearing employee loans. These loans bear interest at the same fixed rate as the bonds, have identical terms, are classified as other non-current assets in the balance sheet and are repayable upon conversion of the bonds or if the bonds are called by the Company upon termination of employment. There is a right of setoff for both principal and interest between the loan and the bond.

As of December 31, 2004, employees had returned 800 of these convertible bonds having an aggregate principal value of € 102,400 and repaid the corresponding employee loans.

Summary of option shares related to the convertible bonds:

	Number of Shares	Weighted Average Exercise Price per Share
Convertible shares outstanding at January 1, 2002	220,000	48.03
Granted	230,000	42.86
Exercised	–	–
Forfeited	– 55,000	46.62
Convertible shares outstanding at December 31, 2002	395,000	45.22
Granted	–	–
Exercised	–	–
Forfeited	– 65,000	47.63
Convertible shares outstanding at December 31, 2003	330,000	44.74
Granted	–	–
Exercised	–	–
Forfeited	– 20,000	42.86
Convertible shares outstanding at December 31, 2004	**310,000**	**44.86**

At December 31, 2004 and 2003, respectively, 177,000 and 72,000 option shares were exercisable. The Company did not recognize any compensation expense for the stock-based compensation awards in the years 2004 and 2003.

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model, with the following assumptions being used for grants in 2002 and 2000: Risk-free interest rates ranging from 4 to 5 %; expected lives ranging from 4.5 to 6 years; expected dividend yield of 1 to 2 %; and expected volatility ranging from 30 to 40 %.

SFAS 123 requires disclosure of pro forma information regarding net income and net income per share as if the Company had accounted for its stock-based compensation to employees using the fair value method. For pro forma purposes using the fair value method, the Company's net income would have been K € 10,948 (2003: K € 11,721) and net income per share would have been € 1.26 (2003: € 1.34).

Notes to the Financial Statements

11. Pension Benefits and Similar Obligations Most employees in Germany, the United States of America, the Netherlands and Belgium are entitled to receive pension benefits from the Company, which are covered by defined benefit plans in their respective countries. In the United States, the Company had established a pension fund for all employees and a supplemental pension fund for executives (SERP), a non-qualified, non-funded pension plan for certain officers. In Germany, the Company sponsors two pension plans covering most employees. Consistent with German requirements and practice, the Company's German plans traditionally were unfunded. In the year 2003, the Company established Pfeiffer Vacuum Trust e. V. ("the Trust") to fund its pension plans. The Trust is an independent, bankruptcy-protected, separate legal entity whose sole purpose is to act in a fiduciary capacity as trustee for the assets held and has invested the contributions in a mutual fund managed by an unrelated third party. The pursued target allocation consists of equities (up to 30 %) and of fixed-income securities and cash (at least 70 %).

Total pension expense for all plans included the following components (in K €):

	2004	2003
Service cost	923	970
Interest cost	2,164	2,163
Expected return on assets	– 2,081	– 73
Amortization of		
Unrecognized net actuarial losses	21	46
Unrecognized prior service cost	73	77
Other	21	–
Net pension cost	**1,121**	3,183

The following table presents the funded status and amount recognized in the consolidated financial statements for all defined benefit pension plans (in K €):

	2004	2003
Change in benefit obligation		
Beginning projected benefit obligation	39,870	38,012
Service cost	923	970
Interest cost	2,164	2,163
Benefit payments	–1,614	–1,479
Gains/losses	3,286	–1,223
Other	–	1,863
Impact of foreign currency exchange rate differences	–141	–436
Ending projected benefit obligation	**44,488**	39,870
Accumulated benefit obligation	**40,329**	36,142
Change in plan assets		
Fair value at beginning of year	38,229	989
Return on plan assets	2,235	171
Company contributions	1,087	36,099
Benefits paid	–1,614	–41
Other	–	1,204
Impact of foreign currency exchange rate differences	–101	–193
Fair value at end of year	**39,836**	38,229
Underfunded status of plans	–4,652	–1,641
Unrecognized actuarial loss	6,035	2,963
Unrecognized prior service cost	219	292
Unrecognized transition obligation	249	276
Prepaid pension cost, net	**1,851**	1,890

Dec. 31

Notes to the Financial Statements

Amounts recognized in balance sheets (in K €):

	2004	2003
Intangible assets – minimum pension liability	220	6
Accrued pension	–1,455	–1,041
Prepaid pension costs	2,817	2,819
Other comprehensive income – minimum pension liability	269	106
Net amount	**1,851**	1,890

Dec. 31

Significant actuarial assumptions used:

	2004	2003
Germany		
Weighted average discount rate	5.00 %	5.50 %
Rates of increase in compensation levels	2.75 %	2.75 %
Expected long-term rate of return on assets	5.50 %	5.50 %
United States, Netherlands and Belgium		
Weighted average discount rate	5.00 – 6.25 %	4.75 – 6.25 %
Rates of increase in compensation levels	3.00 %	3.00 %
Expected long-term rate of return on assets	4.50 – 7.50 %	4.50 – 7.50 %

The measurement date used to determine pension benefits is December 31.

The Company's expected long-term rate of return on assets is based on premium corporate bonds and the appreciation of shares held by the Trust.

Projected future benefit payments to retired employees of the German operations (in K €):

2005	1,607
2006	1,707
2007	1,878
2008	2,013
2009	2,106
	9,311

Composition of plan assets (in K €):

	2004 K €	2004 %	2003 K €	2003 %
Equity securities	2,947	7.4	636	1.7
Fixed-income securities	32,580	81.8	126	0.3
Fund shares	–	–	240	0.6
Cash and cash equivalents	2,600	6.5	36,007	94.2
Other	1,709	4.3	1,220	3.2
	39,836	**100.0**	38,229	100.0

Dec. 31

Defined Contribution Plans Employees of the Company in certain other countries are covered by defined contribution plans. Generally, contributions are based upon a percentage of the employee's wages or salaries. The costs of these plans charged to operations amounted to K € 636 for 2004 and K € 642 for 2003.

12. Shareholders' Equity

Treasury Stock At the Shareholders Meeting on June 16, 2004, the shareholders authorized the Company to acquire treasury stock. The number of ordinary shares that may be repurchased (subject to statutory limitation) is limited to a maximum of 10 % of all issued shares. No amounts were repurchased pursuant to this as of December 31, 2004. Treasury stock, amounting to approximately € 2.4 million, was repurchased in 2003 and consists of 100,076 ordinary shares valued at cost.

Dividend restriction Under German law, dividends are payable only out of unappropriated retained earnings as reported in the unconsolidated parent-only financial statements of Pfeiffer Vacuum Technology AG, prepared in accordance with German accounting principles. As of December 31, 2004, a total of € 38.3 million was reported as retained earnings under German law.

At the Annual Shareholders Meeting, the Management and Supervisory Boards will propose that the shareholders participate in the Company's success in the form of a dividend in the amount of € 0.40 per share (2003: € 0.40). In addition, a bonus dividend in the amount of € 0.50 per share (2003: € 0.30) will be proposed in order to distribute a portion of the Company's cash assets to its shareholders.

Notes to the Financial Statements

Accumulated Other Comprehensive Income

The change in shareholders' equity, which did not have any impact on income, developed as follows (in K €):

	2004	2003
Balance at beginning of year	–1,563	1,313
Change in unrealized gains from derivative instruments for capitalizing payment flows (cash flow hedges)	– 592	228
Tax effect from derivative instruments	232	– 87
Change in derivative instruments	**– 360**	141
Currency translation differences	**– 765**	– 3,609
Pension valuation differences (minimum pension liabilty)	–162	967
Tax effect from pension valuation	62	– 375
Change in pension valuation	**– 100**	592
Balance at end of year	**– 2,788**	–1,563

13. Commitments and Other Financial Obligations The Company has entered into leases and maintenance agreements which expire at various dates, some of which are renewable. Certain of these agreements contain rent escalation clauses. The table below presents the maximum amount of the contractual commitments as of December 31, 2004, classified by the periods in which the contingent liabilities or commitments expire.

Lease and Maintenance Contracts (in K €):

	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Operating leases	4,491	1,680	1,806	620	385
Maintenance contracts	50	34	16	–	–
Total contractual obligations	**4,541**	**1,714**	**1,822**	**620**	**385**

Rental expenses amounted to € 1.5 million for the year 2004 and € 1.6 million for the year 2003.

The Company did not have capital lease obligations in the years 2004 or 2003.

As of December 31, 2004, the Company's exposure under guarantees amounted to K € 90 (2003: K € 91). These guarantees relate to residential rentals. The terms of the guarantees are unlimited; as a general rule, they are called upon termination of the individual rental leases.

14. Segment Information The Company's business operations include the development, manufacture, sale and service of vacuum pumps, vacuum measurement, components and analysis equipment and instruments, as well as vacuum systems. The subsidiaries in the individual countries are independent legal entities with their own management which distribute the products and provide services. Accordingly, the Company identifies its operating segments geographically. Due to the similarity of their economic characteristics, including nature of products sold, type of customers, methods of product distribution and economic environment, the Company aggregates its European subsidiaries outside Germany into one reportable segment, "Europe (excluding Germany)."

The Company evaluates the success and performance of each segment on the basis of its income before income tax.

Segment information relating to the Company's geographic locations at Dec. 31, 2004 (in K €):

	Germany	Europe (Excluding Germany)	United States	Rest of World	Others/ Consolidation	Group
Net sales	121,899	46,468	33,316	4,931	– 50,392	156,222
Third party	72,295	46,371	33,265	4,291	–	156,222
Intercompany	49,604	97	51	640	– 50,392	–
Operating profit	10,951	3,920	2,657	487	70	18,085
Financial income	–	–	–	–	1,541	1,541
Income before income tax	10,951	3,920	2,657	487	1,611	19,626
Total assets	85,978	21,306	15,626	2,323	–	125,233
Long-lived assets	23,122	777	56	143	–	24,098
Capital expenditures	2,861	437	9	93	–	3,400
Depreciation/amortization	4,350	408	35	75	–	4,868

Notes to the Financial Statements

Segment information relating to the Company's geographic locations at Dec. 31, 2003 (in K €):

	Germany	Europe (Excluding Germany)	United States	Rest of World	Others/ Consoli-dation	Group
Net sales	108,440	46,774	32,870	3,557	–47,623	144,018
Third party	65,974	42,459	32,716	2,869	–	144,018
Intercompany	42,466	4,315	154	688	–47,623	–
Operating profit	13,762	6,103	4,148	406	–4,941	19,478
Financial income	–	–	–	–	3,699	3,699
Income before income tax	13,762	6,103	4,148	406	–1,242	23,177
Total assets	84,694	19,633	13,442	2,011	–	119,780
Long-lived assets	24,690	771	86	187	–	25,734
Capital expenditures	1,501	328	30	58	–	1,917
Depreciation/amortization	3,217	518	162	62	–	3,959

Sales by product are as follows (in K €):

	2004	2003
Turbopumps	59,447	53,571
Measurement and analysis equipment, components	42,529	35,218
Service	25,011	25,931
Backing pumps	19,732	18,040
Systems	9,503	11,258
Total	**156,222**	144,018

15. Financial Instruments

Fair value The carrying amounts of financial instruments such as cash and cash equivalents, current accounts receivable and payable, approximate their fair value due to the short-term maturities of these instruments.

Foreign Currency Exchange Hedging The Company enters into foreign currency forward contracts to hedge the exposure of its forecasted sales against fluctuations in foreign currency exchange rates. Approximately 38 % of the Company's net sales are denominated in currencies other than the euro. These forward contracts are limited to U.S. dollars.

The Company has assessed these contracts to be highly effective hedges against the impact of foreign exchange rate changes on its sales. The Company does not engage in speculative hedging for investment purposes. The maturities for all forward contracts are aligned with the date the sales are anticipated to occur. As of December 31, 2004, and December 31, 2003, no contracts held by the Company had a maturity date greater than one year.

The Company's contracts are marked to market at period end using quoted forward rates. The fair values recorded in other assets for the periods ended December 31, 2004, and December 31, 2003, were K € 551 and K € 898, respectively, and recognized a gain of K € 190 and K € 550, respectively, in 2004 and 2003 net of income tax effect of K € 116 and K € 348, in other comprehensive income.

Beginning in 2004, the Company hedged its U.S. dollar cash flows through currency options.

As of December 31, 2004 and 2003, the notional amounts of the forward contracts were € 15.4 million and € 7.7 million, respectively. All realized gains and losses upon settlement of foreign currency forward contracts are recorded in the income statement as foreign exchange gains/losses.

The Company performs ongoing credit evaluations of the parties to these contracts and enters into contracts only with well-established financial institutions.

16. Earnings per Share

The following table presents the computation of basic and diluted earnings per share:

	2004	2003
Net income (in K €)	11,626	12,746
Denominator for basic earnings per share – weighted-average shares	8,690,524	8,750,201
Stock-based compensation	–	–
Denominator for diluted earnings per share – adjusted weighted-average shares and assumed conversions	8,690,524	8,750,201
Earnings per share (in €)		
Basic earnings per share	1.34	1.46
Diluted earnings per share	1.34	1.46

The stock options granted to employees were antidilutive because the exercise price is higher than the quoted price of the Company's ordinary shares.

17. Subsequent Events In January 2005, the Management Board of Pfeiffer Vacuum decided to withdraw from the unprofitable DVD business and recorded in its financial statements for the year ended December 31, 2004, expenses amounting to approximately € 8.9 million (fixed assets € 1.4 million, inventories € 5.3 million, goodwill € 1.0 million, redundancy program € 1.2 million).

Notes to the Financial Statements

> Major Differences between German and U.S. Accounting Principles

The Company utilizes the exempting provision of § 292a, HGB, which states that consolidated financial statements and consolidated management reports may be prepared according to international accounting standards. The consolidated financial statements have been prepared in accordance with the current U.S. GAAP. They are consistent with the 4th and 7th EU Directives based on the interpretation according to DRS No. 1 of the German Accounting Standards Committee. For the Company, the accounting, valuation and consolidation methods under U.S. GAAP differ from the German provisions of the HGB primarily in the following respects:

Differences in the Principles of Consolidation Goodwill and Acquisition Accounting Goodwill represents the excess purchase price over the fair market value of assets acquired and liabilities assumed. U.S. GAAP state that goodwill must be capitalized and, in contrast to HGB, may no longer be amortized over its estimated useful life. Instead, it must be tested for impairment at least once a year and, if necessary, written down. Offsetting goodwill against shareholders' equity, which is an option under § 309, of the HGB, is not permitted.

Differences in Accounting, Valuation and Reporting Impairment Reversals of Long-Lived Assets If an asset has been written down due to impairment pursuant to § 253 (2) and (3), of the HGB, the requirement to reinstate its original value under § 280 (1), of the HGB, states that this value may not be retained if the reasons for the write-down no longer apply at a later balance sheet date. In such cases, the asset must be written up. Under U.S. GAAP, the carrying amount of a long-lived asset must be reviewed for impairment if events or changed circumstances indicate that the asset's carrying amount may exceed its fair value. Impairment is measured by comparing the estimated future discounted pre-tax cash flows of the related asset to its carrying amount. SFAS 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of," states that original values may not be reinstated even if the reasons for such a write-down no longer apply.

Leasing Agreements The treatment of leasing agreements is not explicitly governed under HGB. As a general rule, the opinions relating to the treatment of leasing agreements for tax purposes issued by the tax authorities are therefore applied in the accounting of leasing agreements. With a view to these opinions, leasing agreements are generally written in such a manner that the items leased are capitalized by the lessor.

There are extensive rules under U.S. GAAP governing the accounting of leasing transactions, in particular SFAS 13, "Accounting for Leases." Under these rules, a fundamental distinction is made between capital leases and operating leases, depending upon which party to the transaction enjoys the major opportunities and bears the major risks resulting from the employment of the item leased and is thus viewed as being its beneficial owner. In the case of a capital lease, the leased item is capitalized by the lessee as its beneficial owner; in the case of an operating lease, it is capitalized by the lessor.

Valuation of Inventories Inventories are valued at cost of acquisition or production. Pursuant to § 255 (2), HGB, cost of production can include a proportionate share of administrative costs, depreciation as well as certain expenses for fringe benefits, in addition to the mandatory elements of cost of inputs and prime cost. U.S. GAAP (ARB 43), on the other hand, mandates that production-related production overheads, depreciation as well as product-related administrative costs be included in the cost of production, in addition to direct costs.

Mark-to-Market The imparity principle under HGB states that unrealized losses must be accounted for, but not unrealized profits. Under U.S. GAAP, however unrealized profits are also reported, which is reflected in the following items: Under HGB, assets and liabilities denominated in foreign currency are valued at the lower of cost or market as of the balance sheet date. Under U.S. GAAP SFAS 52, "Foreign Currency Translation," however all assets and liabilities denominated in foreign currency must be translated at their market rate at the balance sheet date, so that unrealized profits are recognized in income.

Deferred Taxes § 306, HGB, states that deferred taxes must be recognized for all temporary differences between the carrying amounts in the tax accounts and those reported in the consolidated financial statements (timing concept); they are computed at the current tax rate. This recognizes timing differences between the tax accounts and the statutory financial statements (Financial Statements I) as well as the financial statements prepared for inclusion in the consolidated accounts (Financial Statements II). The effects of consolidation measures that are subsequently reversed over the course of time also have to be recognized. HGB rules do not permit deferred taxes to be recognized for either quasi-permanent differences or losses carried forward.

Notes to the Financial Statements

U.S. GAAP (SFAS 109, "Accounting for Income Taxes") state that deferred taxes must be recognized for temporary differences arising between the tax bases of assets or liabilities and their carrying amounts in the consolidated financial statements, with quasi-permanent differences being classified as temporary (temporary concept). As under HGB, this recognizes differences between the tax accounts and Financial Statements I and II and the effects of consolidation measures. Unlike HGB, it only recognizes such differences if they are temporary. Additionally, deferred taxes are recognized on net operating loss (NOL) carry-forwards to the extent that their future tax benefit or utilization can be realized. Tax is computed at the rate applicable under current law to retained earnings at the balance sheet date, taking into account future known changes to the tax rate. If deferred tax assets are unlikely to be realized, a valuation allowance is reported.

Other Provisions and Accruals In addition to the requirement to report provisions for liabilities and impending losses pursuant to § 249 (1), the HGB rules also state that provisions and accruals may be recognized for certain expenses that do not constitute an obligation toward a third party (expense provisions pursuant to § 249 (2), HGB). Provisions and accruals are calculated pursuant to § 253 (1), HGB, in accordance with customary commercial principles and the prudence principle.

The reporting of provisions and accruals under U.S. GAAP (CON 6, "Elements of Financial Statements," and SFAS 5, "Accounting for Contingencies") is much more restrictive. Accruals and provisions may only be established if an obligation toward a third party exists, there is a likelihood of its crystallization and its amount can be reasonably estimated. Expense provisions are not permitted. When such provisions and accruals are accounted for, the most probable value is reported; if there is a range of equally probable values, the lowest one is reported.

Provisions for Pensions and Similar Obligations Under both HGB and U.S. GAAP, provisions for pension liabilities are formed on the basis of expected, discounted future payments. Under HGB, the entry age normal method is generally applied pursuant to § 6a of the German Income Tax Act. Under U.S. GAAP, the projected unit credit method is used in accordance with SFAS 87, "Employers' Accounting for Pensions." This method takes into account future salary increases and inflation-related pension adjustments. Furthermore, the discount rate used is the prevailing market interest rate, generally the long-term capital market rate rather than the 6 % used under German tax law and generally applied to financial statements prepared according to HGB.

The minimum pension liability recognized under SFAS 87 satisfies the provision requirements under HGB. However additions are not always recognized as an expense under U.S. GAAP; the full amount is accounted for by reporting an intangible asset or by offsetting it against shareholders' equity ("Other comprehensive income"). This is not permitted under HGB.

In the case of funded plans, certain qualifying assets are deducted from the total amount of the liability or, if there is an excess of assets over the liability, capitalized. This is also not permitted under the HGB.

Calculation of the old-age part-time benefit liabilities under U.S. GAAP is based upon signed contracts between the Company and its individual employees. HGB accounting principles require that accrual be made for the aggregate amount of all employees who are legally entitled to utilize the old-age part-time retirement option. Under U.S. GAAP, the increase is regularly expensed over the remaining period of service. Under HGB, the increase must be accrued in full at the beginning of the part-time retirement and recorded as expense.

Reporting Requirements The structure of the balance sheets and the statements of income satisfies the requirements of the 4th and 7th EU Accounting Directives, with the exception of minority interests.

In order to ensure compliance with the EU Accounting Directives, certain supplemental information has been provided in the Notes, such as the Consolidated Schedule of Fixed Assets, which is not required by U.S. GAAP.

Notes to the Financial Statements

> Additional Information

The following information has been added to the Company's consolidated financial statements in order to exempt the Company from the obligation to prepare consolidated accounts in accordance with German law.

Personnel Expenses

Personnel expenses were as follows (in K €):

	2004	2003
Wages and salaries	37,924	38,172
Social security, pension and other benefit cost	7,994	8,926
Thereof for pensions	1,527	3,085
Total	**45,918**	47,098

Number of Employees The number of employees was as follows at December 31, 2004 and 2003:

Number of Employees:

	2004	2003
Annual average		
Salaried employees	500	529
Wage earners	250	248
Total	**750**	777
Balance sheet date		
Salaried employees	495	509
Wage earners	250	252
Total	**745**	761

Management Board

- Wolfgang Dondorf (Chairman), Diplom-Ingenieur
- Manfred Bender, Diplom-Betriebswirt (since April 1, 2004)
- Amandus Waterkamp, Diplom-Ingenieur, Diplom-Kaufmann (until March 9, 2004)

The aggregate amount of compensation paid by the Company during the year ended December 31, 2004, to all members of the Management Board of the Company, as a group, for services in all capacities was € 1.3 million, including a fixed element amounting to € 0.8 million and a variable element amounting to € 0.5 million. A pension accrual in the amount of € 3.3 million (2003: € 3.0 million) exists for members of the Management Board.

Supervisory Board

- Dr. Michael Oltmanns (Chairman), Attorney at Law and Tax Advisor
  Further supervisory board posts:
  – HPC AG, Weinheim (Chairman)
  – Merkur Bank KGaA, Munich (Vice Chairman)
  – Jetter AG, Ludwigsburg (Chairman)
  – Scholz AG, Essingen (Chairman)
- Prof. Dr. Klaus-Jürgen Kügler (Vice Chairman),
  Professor at the Giessen-Friedberg Technical University
- Michael J. Anderson, Investment Banker
- Edgar Keller (Employee Representative), Commercial Staff Member
- Günter Schneider (Employee Representative),
  Chairman of the Employee Council
- Götz Timmerbeil, Certified Public Accountant and Tax Advisor

The aggregate amount of fixed compensation paid to all members of the Supervisory Board was K € 75; no variable compensation element is agreed.

Exempting Provision under § 264 (3), HGB Pfeiffer Vacuum GmbH, Asslar, which is included in the consolidated financial statements of Pfeiffer Vacuum Technology AG, has made use of the exempting provision under § 264 (3), HGB.

Notes to the Financial Statements

Corporate Governance Pursuant to § 161 of the German Stock Corporation Act, the Management and Supervisory Boards issued the statement of compliance for the year 2004 in December 2004. With the following exceptions, this statement reflects compliance with the recommendations of the German Corporate Governance Code Government Commission:

- No agreement was able to be reached in negotiations with our D & O insurance carrier to obtain a lower premium if a deductible is arranged. The Company will therefore not arrange for a deductible. A deductible would not improve the overall motivation and sense of responsibility of the Management and Supervisory Boards. Both the Management and Supervisory Boards work to the benefit of the enterprise (Point 3.8 of the Code).
- The compensation paid to the members of the Management Board has in the past been and presently still is stated collectively in the Notes to the Consolidated Financial Statements (Point 4.2.4 of the Code).
- The members of the Supervisory Board have in the past received and presently still receive fixed compensation, which does not contain any performance-related variable income elements. Their compensation is stated collectively in the Notes to the Consolidated Financial Statements (Point 5.4.5 of the Code).

The full text of the Code is available at the following internet address:
www.corporate-governance-code.de

NYSE Corporate Governance Due to its listing on the New York Stock Exchange, Point 303A.11 of the New York Stock Exchange Listed Company Manual requires Pfeiffer Vacuum Technology AG to disclose the differences between U.S. corporations listed on the New York Stock Exchange and Pfeiffer Vacuum Technology AG in questions relating to corporate governance.

We have provided an English-language summary comparison of the differences on our internet site under Investor Relations/Corporate Governance.

Asslar, February 24, 2005

Management Board

Wolfgang Dondorf Manfred Bender

Independent Auditors' Report

We have audited the consolidated financial statements, comprising the balance sheet, the income statement and the statements of changes in shareholders' equity and cash flows as well as the notes to the financial statements prepared by the Pfeiffer Vacuum Technology AG, Asslar, for the business year from January 1 to December 31, 2004. The preparation and the content of the consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion whether the consolidated financial statements are in accordance with Accounting Principles Generally Accepted in the United States of America (U.S. GAAP) based on our audit. We conducted our audit of the consolidated financial statements in accordance with German auditing regulations and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Those standards require that we plan and perform the audit such that it can be assessed with reasonable assurance whether the consolidated financial statements are free of material misstatements. Knowledge of the business activities and the economic and legal environment of the Group and evaluations of possible misstatements are taken into account in the determination of audit procedures. The evidence supporting the amounts and disclosures in the consolidated financial statements are examined on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion. In our opinion, the consolidated financial statements give a true and fair view of the net assets, financial position, results of operations and cash flows of the Group for the business year in accordance with Accounting Principles Generally Accepted in the United States of America. Our audit, which also extends to the group management report prepared by the Company's management for the business year from January 1 to December 31, 2004, has not led to any reservations. In our opinion on the whole the group management report provides a suitable understanding of the Group's position and suitably presents the risks of future development. In addition, we confirm that the consolidated financial statements and the group management report for the business year from January 1 to December 31, 2004, satisfy the conditions required for the Company's exemption from its obligation to prepare consolidated financial statements and the group management report in accordance with German law.

Eschborn/Frankfurt am Main, February 24, 2005

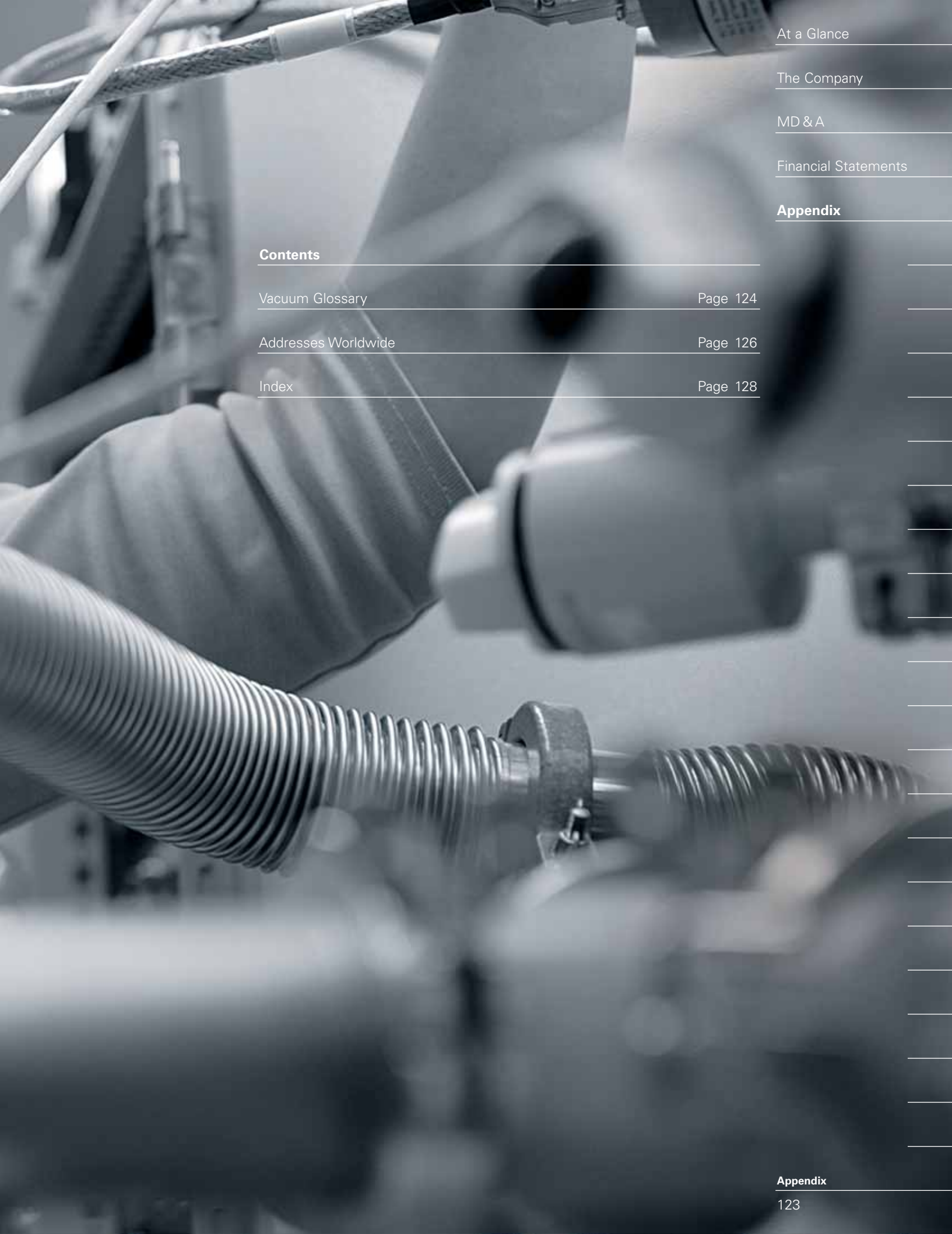
Ernst & Young AG
Wirtschaftsprüfungsgesellschaft

Havas
Wirtschaftsprüfer
(German Public Auditor)

Klingelhöfer
Wirtschaftsprüfer
(German Public Auditor)

Appendix

Anja Stroh (37) *Research & Development, mag-lev turbopump electronics engineer, with the Company for the past 6 years*



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Vacuum Glossary

Backing pump
A vacuum pump employed in combination with another vacuum pump that enables it to operate by producing the required low pressure on the outlet side (rotary vane or dry pumps, for example).

Dry pump
A mechanical pump for generating low and medium vacuum (see "Vacuum") that compresses the advanced gas to atmospheric pressure. It operates "dry" in the pump chamber, i.e. it does not require lubricants.

Gas analysis
A method of determining the composition of a gas mixture.

Leak
Leaks in a vacuum apparatus are leakages in the wall or at joints, caused by faulty material or processing or incorrect handling of the sealing elements.

Leak detector
A device used to find leaks.

Mass spectrometer
A device used for performing gas analysis.

Pressure
The force exerted by a gas on the walls of a recipient. In vacuum technology, the unit of pressure is expressed in millibars [mbar].

Recipient
A container that is evacuated by vacuum pumps.

Roots pump
A mechanical pump for generating low and medium to high vacuum (see "Vacuum"). It requires a backing pump (see "Backing pump") in order to operate.

Rotary vane pump
A mechanical pump for generating low and medium vacuum (see "Vacuum") that compresses the advanced gas to atmospheric pressure.

Total pressure measurement
Physical measurement principles for determining the pressure in a vacuum system.

Total pressure measurement instrument
A vacuum meter for measuring the total pressure of a gas or gas mixture.

Turbopump
A mechanical pump for generating high and ultra-high vacuum (see "Vacuum"). It requires a backing pump (see "Backing pump") to operate.

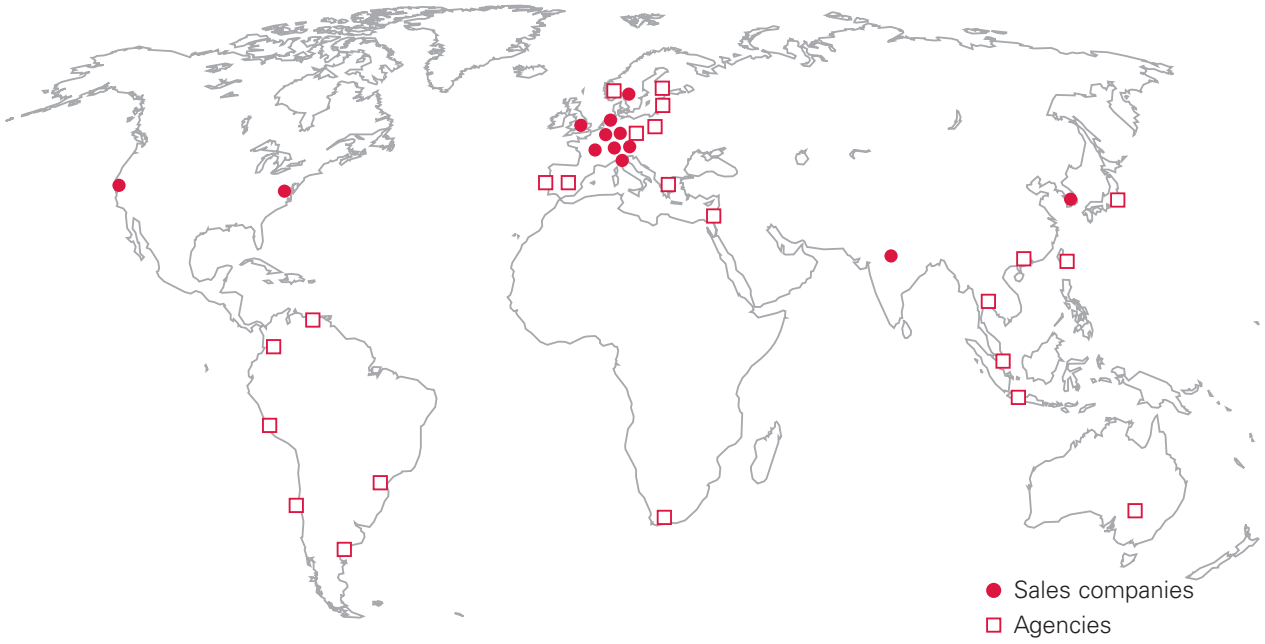
Vacuum
The surface of the earth is surrounded by a layer of air (atmosphere) that exerts a given pressure (atmospheric pressure). A vacuum exists if the pressure prevailing in a vessel is lower than the atmospheric pressure that surrounds it. Vacuum technology differentiates between four vacuum ranges:

- Low vacuum: From 10^{3} to 10^{0} mbar, e.g. for vacuum packaging
- Medium vacuum: From 10^{0} to 10^{-3} mbar, e.g. for manufacturing incandescent lamps
- High vacuum: From 10^{-3} to 10^{-7} mbar, e.g. for high-vacuum melting and casting
- Ultra-high vacuum: From 10^{-7} to 10^{-12} mbar, e.g. for space simulation or scientific research

Vacuum pumping station
A combination of multiple vacuum pumps interconnected by means of vacuum components like valves and flanges.

Vacuum system
A combination of vacuum pumping station, recipient and electrical/electronic controls.

Addresses Worldwide



Austria
Pfeiffer Vacuum Austria GmbH
Diefenbachgasse 35
1150 Vienna
Phone: +43 1 8941704
Fax: +43 1 8941707
office@pfeiffer-vacuum.at

Belgium
Pfeiffer Vacuum N. V.
Luxemburgstraat 5
9140 Temse
Phone: +32 3 71059-20
Fax: +32 3 71059-29
sales@pfeiffer-vacuum.be

France
Pfeiffer Vacuum France SAS
45 rue Senouque, BP 139
78531 Buc Cedex
Phone: +33 1 308304-00
Fax: +33 1 308304-04
info@pfeiffer-vacuum.fr

Germany
Pfeiffer Vacuum Technology AG
Pfeiffer Vacuum GmbH
Berliner Straße 43
35614 Asslar
Phone: +49 64 41 802-0
Fax: +49 64 41 802-202
info@pfeiffer-vacuum.de

India
Pfeiffer Vacuum India Ltd.
25/5 Nicholson Road, Tarbund
Secunderabad 500 009
Phone: +91 40 2775-0014
Fax: +91 40 2775-7774
pfeiffer@vsnl.net

Italy
Pfeiffer Vacuum Italia S.p.A.
Via San Martino 44
20017 Rho (Milano)
Phone: +39 2 939905-1
Fax: +39 2 939905-33
contact@pfeiffer-vacuum.it

Netherlands
Pfeiffer Vacuum Nederland B.V.
Veldzigt 30 a
3454 PW De Meern
Phone: +31 30 666-6050
Fax: +31 30 666-2794
sales@pfeiffer-vacuum.nl

South Korea
Pfeiffer Vacuum Korea Ltd.
703 Ho, Hankuk Mulru B/D, 853-1
Dongchun-Dong, Yoinin City
Kyungki-Do, 449-120
Phone: +82 31 266-0741
Fax: +82 31 266-0747
sales@pfeiffer-vacuum.co.kr

Scandinavia
Pfeiffer Vacuum Scandinavia AB
Johanneslundsvägen 3
194 61 Upplands Väsby
Sweden
Phone: +46 8 590748-10
Fax: +46 8 590748-88
sales@pfeiffer-vacuum.se

Switzerland
Pfeiffer Vacuum Schweiz AG
Förrlibuckstrasse 30
8005 Zurich
Postal Address Postfach 437
8037 Zurich
Phone: +41 1 444-2255
Fax: +41 1 444-2266
info@pfeiffer-vacuum.ch

United Kingdom
Pfeiffer Vacuum Ltd.
2-4 Cromwell Business Centre
Howard Way, Interchange Park
Newport Pagnell, MK16 9QS
Phone: +44 1908 500-600
Fax: +44 1908 500-601
sales@pfeiffer-vacuum.co.uk

United States
Pfeiffer Vacuum Inc.
24 Trafalgar Square
Nashua, NH 03063-1988
Phone: +1 603 57865-00
Fax: +1 603 57865-50
contact@pfeiffer-vacuum.com

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