

PRODUCTS
ENVIRONMENT
PEOPLE



2004 | SUSTAINABILITY REPORT



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Dr. Markus Miele



Dr. Reinhard Zinkann

“A brand is like a permanent promise that must be kept.” This was stated a few years ago by a prominent commentator when he was talking about Miele, and he really hit the nail on the head as far as our company philosophy is concerned. For over 105 years, Miele has stood for the highest standards of production quality. The Miele brand has come to represent longevity, reliability and security. The company motto “Forever better” first coined by our great-grandfathers, the founders of the business, is still valid today and is genuinely a daily obligation to us all. This approach has been handed down to us by our own fathers, Rudolf Miele and Dr. Peter Zinkann. Over almost five decades they jointly led the company, helping it reach its current world standing as a premium manufacturer of domestic appliances.

On the occasion of the publication of the last annual business report, Rudolf Miele confirmed the company commitment with the following statement: “We wish to continue in the future to provide the most exacting consumers with machines of the highest quality, and proven reliability and long life”. To achieve this we have regularly invested in research, development, production, and sales and distribution. “During the last five years we have invested a total of EUR 645 m in the company from our own resources.

Today Miele is a major international company with subsidiaries and distributors in over 30 countries and employs over 15,000 people worldwide, more than 11,000 of which are in Germany. They are all highly motivated, exceptionally quality-aware and contribute unequivocally to the high quality of Miele products. Despite our worldwide presence we remain deeply committed to Germany as a viable manufacturing base. Nevertheless we feel a responsibility for the regions and above all the local populations of all 11 of our factory locations (eight in Germany and one each in Austria, China and the Czech Republic). For this reason we support the Global Compact Initiative from the UN General Secretary, Kofi Annan, which includes human rights, industrial relations and environmental protection issues and we are very pleased to have been awarded certification in accordance with SA 8000, a new standard for social standards, in November 2004. Miele is also a participant in the international quality standard DIN EN ISO 9001, the DIN EN ISO 13485 European standard for medical products and the internationally valid environmental standard DIN EN ISO 14001.

Beyond the scope of all official standards and agreements, many of the requirements for these have naturally always been carried out by Miele anyway as a matter of course. This includes, for

example, the maintaining of high standards of health and safety at work, workers' representation, the avoidance of discrimination, the use of environmentally friendly technologies and no tolerance of child labour.

Our company philosophy does not just apply our motto of "Forever better" to our products and our approach to customers, it also applies to our responsibility to our employees. This long-established motto of the Miele families still has an enduring place in today's difficult times. For Miele, social responsibility and acting in a sustainable and economical manner are not just buzz words but are core practises that have been an established part of the company approach for many years. There are numerous examples of this approach in this report. Among others, the subjects covered here include social achievements, health protection, equal opportunities for women, further training and community involvement.

Dealing responsibly with the environment and resources is an important topic at Miele. This sustainability report is at the same time our fifth environmental report and gives extensive information about this area of interest. The best reference though is given by Miele appliances themselves. A current consumer study by the Gesellschaft für Konsumgüterforschung (GfK),

Nürnberg, a major German consumers association, confirms that Miele domestic appliances are used for the longest periods in households. According to their report, Miele washing machines, for example, have the longest working life of 18.5 years. In contrast the average period of use of all other washing machine brands tested excluding Miele was just 12.4 years. The on-average longer active life of more than six years has a sustainability effect because when a machine is used for a longer time, it clearly has a reduced impact on waste quantities and uses less resources.

We at Miele design all domestic appliances to last a minimum of 20 years. Our products combine high performance with low consumption figures – This is made possible by the utilisation of technical innovations and high quality components. This is what our company motto "Forever better" stands for along with the following statement made many years ago by the company founders which remains equally applicable today: "Success can only be had in the long run if one is totally and utterly convinced of the quality of one's products."



Dr. Markus Miele

Dr. Reinhard Zinkann

THE COMPANY

Miele stands for quality

Miele & Cie. has a pole position on international markets. The specialist for high-quality domestic appliance technology with its headquarters at Gütersloh in Westphalia is, in terms of turnover, the third largest German domestic appliance manufacturer and in Western Europe the fifth largest company in its branch.

In spite of tough international competition, in business year 2003/2004 Miele achieved a turnover of EUR 2.15 bn. Worldwide Miele employs 15,122 people in 34 countries.

Miele stands for high-quality washing machines, washer-dryers, dryers and rotary ironers for both domestic and commercial applications. Additionally the product range includes built-in and free-standing kitchen appliances such as ovens, dishwashers, microwave ovens, steam cookers, cooker hoods, fitted kitchens, vacuum cleaners and special washer-disinfectors for clinics and laboratories. In all, eight German factories and three factories abroad produce products for Miele and its subsidiary brand

Imperial. The factory locations have remained unchanged since their founding or takeover.

Miele has had its head office in Gütersloh since 1907. The company moved there from the nearby town of Herzebrock where it was founded in 1899. A decisive factor for the move was the possibility of a direct link from the factory to the main-line railway. In addition the town of Gütersloh encouraged companies to relocate and even laid a dedicated gas supply to the factory site.

Initially Miele manufactured cream separators and butter machines, and then a little later started production of washing machines. The "Hera" model, the first series-produced washing machine, consisted of a wooden tub with a wood spindle to agitate the laundry.

It was hand-operated either by a lever or via a flywheel. The simple wood and metal craft workshop from that period then developed over the following decades into the major company it is today with a high degree of vertical integration and representation for its high-quality products throughout the world.

"Forever better": A slogan that has been used by Miele for over 100 years. This emblem with the company motto was used to embellish the first Miele washing machines which at that time were made of wood.



The Miele corporate philosophy

We wish to supply our customers with the very best that technology offers at the time of purchase. Miele aims to manufacture the highest quality built-in appliances in the world and to be seen by markets worldwide as providing an absolutely top-class household product. Therefore continuous innovation is the foundation of our business success. The customer, for whom we provide first-class products and services, is the centre of attention. In keeping with the company motto of “Forever better”, first coined by the company founders over 100 years ago, we wish to continually improve all activities at our various production facilities. If we were to cease striving to be “Forever better”, one day we would no longer even be good. For this reason we have committed ourselves to operate in accordance with the following fundamental principles:

1. It is our objective to produce goods to the highest standards of quality using processes which are both ecologically and economically sound. These products should not only excel in terms of performance and safety but also minimise the burden on the environment throughout their entire life cycle.
2. Through the development of innovative products and processes, we wish to achieve the most sparing use of raw materials, energy, water and other resources, and to increase the utility value and functionality of our products.
3. Within our sphere of influence, we wish to avoid emissions and waste as far as possible, and where this is not possible, to reduce them, through the use of the best environmentally friendly technologies available.
4. As a manufacturer of high quality electrical domestic appliances active on markets worldwide, we have always felt a responsibility not only to the environment, but also to the social welfare of our employees, the maintenance of work standards right up the supply chain as well as ensuring basic human rights, as far as we can influence them, are complied with. For this reason we support the principles laid down in the Global Compact from the UN relating to the protection of human rights and to social and environmental standards. Additionally we have made an effort to gain the new social accountability SA 8000 certification.

5. All our employees are to be informed, qualified and motivated regarding our management system as appropriate for their duties. Within their area of responsibility they are obliged to implement our company philosophy as well as to ensure that all appropriate legal requirements and guidelines, and company guidelines are complied with.
6. Using an integrated management system covering all aspects of occupational health and safety, medical products, product liability,

product safety, quality, social welfare and environmental protection, we ensure that our company, in cooperation with our suppliers, dealers, service providers and appropriate authorities, achieves comprehensive and continuous improvement in all aspects of the management system.

7. We regularly check compliance with our company philosophy and its aims, as well as the functional effectiveness of the management system. This includes evaluation of relevant data.
8. We keep our workforce, local authorities, other specialists and interested parties, and the general public informed of our activities in the areas of marketing, the environment, the company and social matters. In addition we provide information regarding the ecological impact of our factory sites and on the progress of containment policies to avoid or reduce this impact. The desire for open dialogue is second nature to us.



Senior Management (from left to right): Dr. Markus Miele, Dr. Eduard Sailer, Horst Schübel, Dr. Reto Bazzi, Dr. Reinhard Zinkann

Awards for successful activities**1994**

Environment prize from the German Federal Environmental Foundation for Miele's work with the Environmental Initiative of Businesses in the Gütersloh Area of which initiative Miele was a founding member.

1996

Award for the environmental approach at the production facilities at Warendorf by the Association of Independent Companies.

1996 and 1998

Award for the environmental approach at the production facilities at Oelde by the Association of Independent Companies.

1998

Award for an especially advanced environmental management system and for high commitment to company environmental protection by B.A.U.M., a German working group to promote environmental awareness at a managerial level.

1999

Only just after its introduction to the market PerfectClean was awarded a prize for scientific and business innovation in the Münster area by the Aktion Münsterland e.V. Perfect Clean is a silicon-based surface treatment for oven cavities, baking trays and accessories.

1999

Rudolf Miele and Dr. Peter Zinkann in the Manager Magazine's Business Hall of Fame.

2000

German Marketing Prize awarded to Miele.

2001

Miele was awarded the BME Innovation Prize (German materials management, purchasing and logistics association). The BME Innovation Prize (German materials management prize) was awarded to Miele, the domestic appliance manufacturer, for innovative achievements and concepts that "clearly improved company results due to improvements in purchasing efficiency and logistics".

Awards for successful activities

2002

The Gütersloh domestic appliance manufacturer was awarded the “Best Practice 2002” prize by the Institute for Productivity and Quality (IPQ). To guarantee “innovation, longevity and quality of products” by constant testing and setting the depth of added value is, according to the jury, an “exceptional company achievement”.

1992 – 2003

According to consumers, Miele has the best after-sales service operation of any domestic appliance manufacturer in Germany. The Miele Service Department again gained first place in the Kundenmonitor Deutschland (previously “Das Deutsche Kundenbarometer”), as has been the case for every year since the study was first commenced in 1992. Miele was graded 2.13 (on a scale of 1 to 5 with 1 being the best) by the Emnid Institute in Bielefeld and was best in the branch even beating its own superb result from last year.

2002 + 2003

“Most trusted brand” award. Under the auspices of “Reader's Digest”, a survey was carried out to find “the most trusted domestic appliance brand in Europe”. Result: Miele.

2003

The Steel Information Centre, Düsseldorf, awarded the Steel Innovation prize to the Miele honeycomb drum. The jury praised the “exemplary shaping properties of the stainless-steel material”. They continued with the following: “With this honeycomb drum, with which the number and size of perforations has been greatly reduced and their design has been matched to the wash cycle, the laundry is treated gently both during washing and spinning, even at high spin speeds.”

2004

According to the opinion of American interior designers and decorators, Miele builds the best dishwashers and therefore earned the award of “Best on the Best 2004”. The prize is presented by the US magazine “House & Garden” which gives annual awards in various categories for the most praiseworthy products. Miele machines were viewed favourably by the experts who said they were clearly superior to products from their home market and models from other European manufacturers. “House & Garden”: “The fully integrated dishwashers from Miele are simple to operate – you only need to press one button – and they are unbelievably quiet.”

THE QUALITY

Miele machines are worth their money

Miele domestic appliances have the longest working life in households. This is the conclusion of a current consumer study by the Gesellschaft für Konsumgüterforschung (GfK), Nürnberg, a major German consumers association. According to their report, Miele washing machines have the longest working life of 18.5 years. Miele tumble dryers are used for an even longer period: 18.6 years. In contrast the average life of all other brands tested excluding Miele was just 12.4 years for washing machines and only 11.8 years for tumble dryers.

The longevity of Miele washing machines has been confirmed by an endurance test carried out by the Wäschereiforschungs-Institut (Laundry Research Institute) Krefeld. The report from this independent institute clearly showed that out of all the machines tested, the Miele washing machine was the only one to still function perfectly after a lifetime endurance test of 4,995 wash cycles, the equivalent of around 20 years' normal use. The report included the following statement. "Without the intervention of a service technician, only the three Miele machines survived the test in

working order. On all the other appliances defects and failures occurred, which in some cases were numerous, and required service work from a technician or even resulted in the premature termination of testing." This test was carried out in accordance with the test criteria laid down by the Stiftung Warentest (StiWa) (Germany's leading consumer association) but under much harsher test conditions: Instead of the 2,079 programme cycles usually tested by StiWa (the equivalent of about ten to eleven years' use), the number was increased by nearly one and a half times to represent Miele's own claims for their machines - Miele design all their domestic appliances to have a lifetime of at least 20 years. No machine is ever brought to the market without an uninterrupted endurance test, which with washing machines lasts 10,000 hours (almost 13 months), being successfully completed.

The on-average longer life of more than six years compared to our competitors obviously has a sustainability effect in the most literal sense: When a machine is used for a longer time, it clearly has a reduced impact on waste quantities and contributes to energy savings and the



use of less resources. Appliances which provide many years of reliable service are more environmentally friendly than short-lived, cheaper offerings which need replacing after just a short period of time. To ensure that domestic appliances are always technologically up-to-date, Miele invented the electronic Update system. This system allows new programmes to be downloaded to older appliances with little or no fuss. Owners of older appliances can then exploit the energy and water saving potential of new programmes to the full, even years after the date of purchase.

But it is not only their long life that shows the proverbial high quality of Miele machines and confirms the relationship between expenditure, results and costs. Other reports underline this, for example assessments of the honeycomb washing machine drum. In this regard, the Laundry Research Institute at Krefeld reported as follows: "After 15 washes using pre-damaged standard cotton cloths, Miele's Softtronic showed significant benefits compared with other machines. There was no pimple structure apparent on the laundry after a programme which included a spin cycle in the Miele Softtronic machine. The laundry lay loosely in the drum." The tumble dryer honeycomb drum introduced last year has also had its gentle treatment of

laundry confirmed by certification – By the independent Hohensteiner Institute. This laundry research institute for textile care based in Stuttgart since 1946 certifies that Miele's honeycomb drum ensures more uniform drying and reduced creasing.

Miele quality is confirmed again and again by the regular testing carried out by the Stiftung Warentest and other international comparative tests (see page 16, Miele Test Winner). Here Miele machines repeatedly gain the pole position.

Quality has always been top priority at Miele. This high quality naturally also has a high price. But: "If quality, period of use and price are viewed as a whole, then Miele machines are superb value for money" stated Dr. Reinhard Zinkann, Managing Director and co-proprietor of Miele & Cie. KG in an interview with a specialist magazine.

"Miele machines are literally worth their money."

In addition Miele's customers can rest assured that the company actively fulfils its obligations regarding future generations. Environmental protection begins at Miele with the very first product idea. The environmental compatibility of production processes is then considered as are the use of mineral and fossil raw materials and of course the consumption of electricity, water and deter-



gents during the later actual use of the product. Natural reserves are reducing noticeably and the energy required for recycling used materials is high and has a negative effect on the environment. There is a need for energy-efficient, long-lived and recyclable appliances, precisely the type of machine that Miele manufactures.

But a successful company cannot simply rest on its laurels – a business is after all looking for success and could never afford to do that – but must strive to continue to be ahead of competitors in technical innovations. With the new G 1000/G 2000 dishwasher generation (see next page) this has been achieved in superb fashion.

“Good, sound domestic appliances give Miele their first-class image”, was the verdict of the February 2004 edition of the highly-reputable Hamburg-based “Manager Magazine”. In this twelfth annual analysis on the standing of leading enterprises, a 2,501-strong representative panel of board members, managing directors and others from the senior levels of German management voted Miele into highly coveted top spots.

The jurors placed great emphasis on customer orientation, product quality, management quality, image, innovation, value for money, communication and employee orientation as the key success factors. Among the leaders from 16 branches of industry, Miele achieved seventh position among the 171 companies assessed, behind Porsche, BMW, Audi, DaimlerChrysler, Coca-Cola and Nokia. In the electrical goods industry, a “highly reputable branch” according to “Manager Magazine”, Miele was viewed extremely positively, second only to Nokia. “Miele has steadily improved its standing since 1998 and is edging towards pole position”, states the 2004 image profile.



“Intelligent” dishwashers offer perfect care for crockery

In recent years the energy and water consumption of dishwashers has reduced enormously. 13 litres of water was the accepted norm until recently and a further reduction while maintaining equally good cleaning results appeared unthinkable. However, Miele has again achieved the impossible and managed to reduce consumption to just ten litres.* This has been made possible by using spray arm alternation which Miele has introduced for the very first time. With spray arm alternation technology, wash water is directed alternately through either the middle, or the top and bottom spray arms. This allows residues on the dishwasher load to be removed more effectively so that water consumption is reduced while maintaining optimal cleaning results.

Virtually no other domestic appliance needs to be as flexible as a dishwasher. This does not just apply to the interior divisions but above all to the treatment of the load. Sometimes it will be fine glassware, another time perhaps a full load of saucepans or baby bottles, but usually it will be a random mix of all the items used from day to day by a family. An optimal programme must therefore be flexible and adjustable to match the most differing requirements. The programmes or rather the intelligent electronic controls on the new

G 1000 / G 2000 Miele dishwasher generation offer solutions to meet all needs.

Sensors control water consumption. The Eco Sensor III is a standard feature on all new dishwashers. Using a beam of light, it measures the turbidity, or murkiness, of the water and adjusts water intake in accordance with the actual level of soiling in the wash water. Some models feature the AutoSensor with air-bubble separator. This complicated name refers to a sensor that measures the level of soiling in water particularly accurately. Water quantity, temperature and programme duration can then be particularly precisely matched to suit specific requirements. This means that electricity consumption is then directly related to the actual level of soiling of the load. The Sensor wash programme and the Sensor wash gentle programme operate with parameters based on the measurements made by the AutoSensor. To ensure that water consumption can be matched to the actual load, the new Miele dishwashers have a load-sensor function. This is used to calculate how much water is required to thoroughly wet the load and fill hollow areas such as the concave bottoms of cups or bowl rims.

For the new dishwasher generation internalised Turbothermic drying has been developed.

* Standard programme Energy save



This is a system whereby warm air is cooled in a condenser chamber in the side of the appliance. This condenser is cooled not by water but by a stream of cool air taken in from outside the machine. This means that this new technology is also suitable for dishwashers connected to a hot water supply – with Miele dishwashers, a hot water fill without any other conversion work being needed is always possible. As with the old system, the drying figures for the new method justify an “A” on the energy label so that Miele dishwashers with active drying retain their “Triple A” rating (for cleaning results, energy efficiency and drying performance).

However many savings can be made, the general machine convenience must not suffer. These new dishwashers offer numerous special programmes, e.g. a hygiene programme for baby bottles and similar, a programme for beer glasses and one for plastic items which is also suitable for plastic toys. The 3 in 1 Tab function for dishwasher tablets complements the range. And finally, long-lived Miele dishwashers are ready for the future as they are prepared for Miele@home, the system for a networked house.

Miele – Test winner

“Best model in test: Miele.” This is often the result of national and international product tests. With just the Stiftung Warentest (StiWa) (Germany's leading consumer association) exhaustive tests over the last two years, no less than six Miele models have been far ahead of the field (see table). In addition to many pure product-related properties, for example washing, drying, suction, etc., criteria such as, among others, consumption values and, with vacuum cleaners, emissions are also evaluated. The renowned “Öko-Test”, a German consumers' magazine, also regularly gives Miele appliances good reports, for example the Medicaire 700 vacuum cleaner in issue 4/2004.

In Great Britain recently three vacuum cleaners (S 571, S 716 Cat & Dog TT and S 758 Revolution 700) were given the much-coveted award of “Best buy” by “Which”, the British

Consumers' Association's magazine. An extract from the report for the S 571 stated “... the best appliance that we have tested... Miele is without doubt the best vacuum cleaner manufacturer”. In the same issue of the magazine, a Miele dishwasher, the G 694-3 SC Plus, achieved the best result in its test and was also given the prestigious “Best buy” recommendation. The excellent wash results were particularly emphasised.

In Sweden the “Allt i Hemmet” magazine gave the S 749 their highest award. In Austria, “Good” was awarded to the S 849 and the Parkett & Co. 700. “Good” was also the prize for the Magic Mint S 700 given by the French magazine “Que Choisir”. In Belgium the S Blue Soft 700 was the test winner in the April 2004 edition of “Test-Achats”, a magazine where Miele has often occupied the top spots. In an extensive comparative test of tumble dryers carried out by “Test-Achats”, the Miele T 253 C was named as the

Model	Position	Stiftung Warentest
S 251i vacuum cleaner	Good (test winner)	4/2002
Vacuum cleaner S 712	Very good	4/2003
Washing machine W 435 Plus WPS	Good	9/2003
Tumble dryer T 273 C	Good (test winner)	11/2003
Vacuum cleaner S 849 + SEB 234	Good (best result)	4/2004
Washing machine W 2577 WPS	Good (test winner)	9/2004

Miele – Test winner

best condenser dryer. The T 233 C and the T 220 vented dryer were also evaluated positively. And in the refrigeration appliance tests the results for the KD 3534 S were very pleasing.

The “Consumentengids” in the Netherlands awarded the S 711 Black Pearl the “Beste koop” (best buy) recommendation. Our Dutch neighbours place particular emphasis on value: “Top end products are better and cleaner. Top end products are more robust”, was the way the editorial put it.

Miele appliances are the leaders overseas as well: “Top overall” – Better than all the others. This was the praise lavished on a Miele induction hob (KM 490) after a product comparison carried out by the Australian magazine “Choice” placed it as clear winner.

And in the USA, readers of the “New Jersey Life Magazine” gave Miele dishwashers and ovens top marks.

MANAGEMENT SYSTEM

Quality with system

The implementation of basic policy at Miele is ensured by an effective management system. This system applies equally to the following:

- Occupational safety
- Occupational health
- Medical products
- Product liability
- Product safety
- Quality
- Social concerns
- Environmental protection

Senior Management defines the overriding objectives. The factory division heads and departmental heads ensure that guidelines are complied with and report on progress.

At manufacturing plant level, environmental responsibility lies with works managers. They define ecological targets and programmes for their plant, and nominate environmental officers for specific areas. A wide range of teaching aids and materials are available as required for the training of these personnel.

Each year, the management system is audited by external specialists to ensure company-wide

compliance with the standards DIN EN ISO 9001 (quality), DIN EN ISO 14001 (environment) and now also the SA 8000 for social standards. The same also applies to the DIN EN ISO 13485 standard for medical products. In addition, the management system is also monitored continuously by Miele auditors within the context of fixed auditing programmes. These auditors compile reports and evaluate results making it possible for the departments concerned to identify discrepancies at an early stage and to take any necessary remedial action.

At the Uničov (Czech Republic) and Dongguan (China) factory sites, the introduction of a quality and environmental management system in accordance with DIN EN ISO 9001 and DIN EN ISO 14001 has already begun so that after successful certification of these two sites, a continuous application of internationally valid quality and environmental standards will apply to all Miele factories. Efforts are also being made to comply with the social standard requirements.

Data and Certification

The Miele company founders embellished their first wooden tub washing machine with the slogan “Forever better”. This motto still applies to all areas of the company today and practical environmental protection has long played its part in this philosophy. High quality requirements lead to long life times which in turn have a lasting effect in treating the environment gently. Miele made an early contribution to this with its company environmental protection policy.

Certification in accordance with the various standards dealing with the environment, quality and social criteria, merely serves to complement the long list of voluntary measures and obligations undertaken by Miele.



1951

Introduction of the company suggestion scheme

1970

Start of systematic environmental data recording

1990

Introduction of product-related environmental protection

1992

Introduction of the Miele management system

1993

Company-wide participation in the DIN EN ISO 9001 international quality standard

1996

Participation of all Miele factory sites in the DIN EN ISO 14001 standard and the European environmental regulation (EWG) no. 1836/93

1996

Publication of the first complete environmental declaration for all Miele factory sites and the first Miele Group environmental report

2004

Company-wide participation in the SA 8000 standard from SAI (Social Accountability International) Support of the UNO Global Compact with its principles regarding human rights, social relations and environmental standards

Data and Certification



Regular performance monitoring

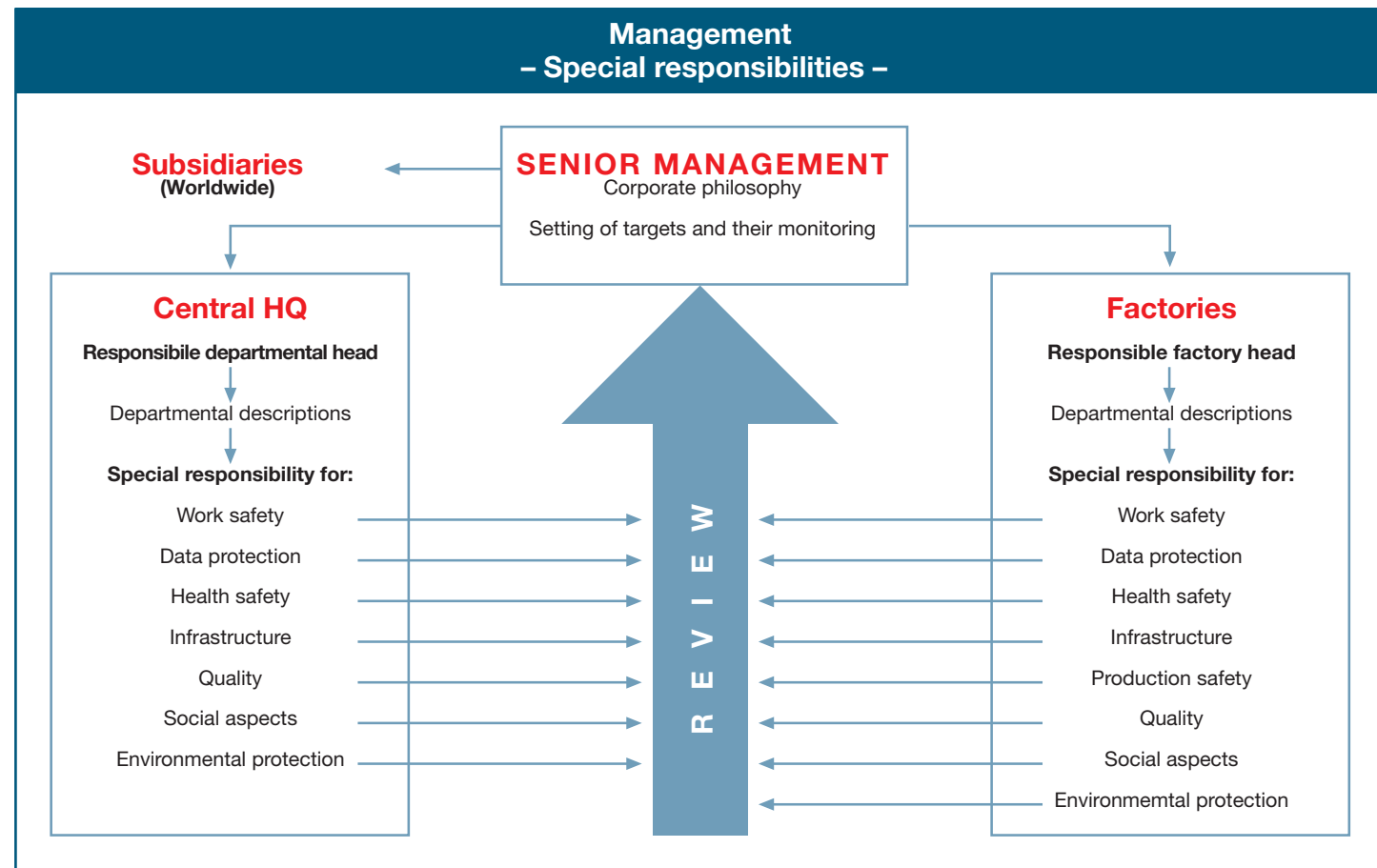
Within the framework of the annual central review, a performance evaluation of the Miele management system is carried out. The basis of this evaluation is a classification of the audit results provided by the internal auditors which shows that there is room for improvement in areas B and C, and to a much lesser extent in D.

Internal audits with environmental relevance – October 2002 to September 2003

Miele in total | Total from audit 99:

Basic requirements	A: Requirement complied with: No additional measures needed	B: Requirement with minor deficiencies, complied with: Additional measures may be needed	C: Requirement with greater deficiencies, complied with: Additional measures needed	C: Requirement not complied with: Re-audit needed
Application of site-related environmental policies, targets and programmes, and the management system	81.9%	13.2%	4.4%	0.4%
Training and information	72.6%	13.9%	12.4%	1.0%
Checking of activity-related environmental impact. Measures taken to avoid or stop environmental impact.	72.6%	15.5%	11.6%	0.3%
Assessing the environmental effects in advance for the following: New activities, products and procedures.	77.9%	11.5%	10.7%	0.0%

Division of responsibilities and tasks in environmental management system



Training and motivation of employees with regard to environmental protection

The teaching of environmentally relevant themes is already a fixed part of apprentice and further training at Miele. Environmental matters are a standard part of the timetable for apprentices just as they are for general vocational training or seminars aimed at specific groups.

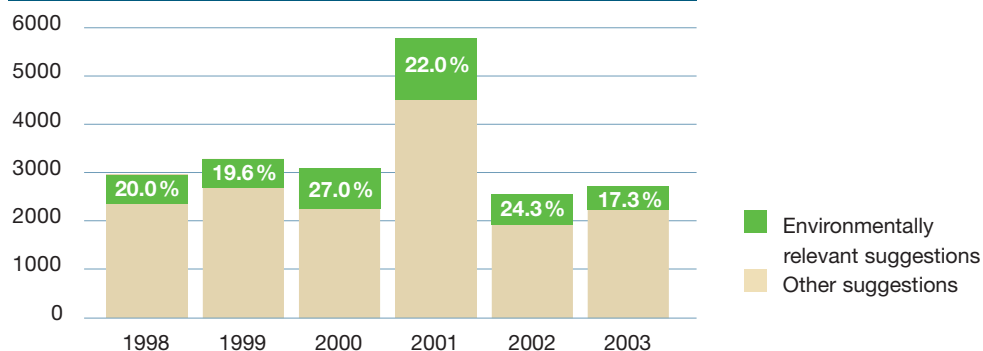
The success of targeted training and motivation measures is shown by the high proportion of environmentally relevant suggestions submitted to the company suggestion scheme. On average 22% of all suggestions over the last five years have involved this subject. In this way Miele employees actively influence environmental protection in the company.

Independent of the quality or practicality of the suggestions, the high participation rate shows the strong ties between employees and the company.

This committed, thoughtful, approach is of advantage to both sides: Just by applying some of the ideas submitted in 2003 it was possible to make total savings of over EUR 840,000. Some EUR 514,000 of this was paid out in bonuses to those originating the suggestions. It is frequently people with a practical turn of mind who can appreciate the wide-ranging effects that can be achieved by changes sometimes involving the simplest of materials or ideas. There are many good ideas, mostly involving our own manufacturing procedures, e.g. optimising production installations and also the products themselves.

The company suggestion scheme can be traced back to the sons of the company founders. Back in 1951 Carl Miele Jnr and Kurt Christian Zinkann first asked their workforce to submit suggestions for improvements and savings. The first suggestions from some employees though date back to the forties. Then, as now, the main motive for the submission of ideas was not the possible financial reward or the receipt of a present sometimes given as a token of appreciation, but rather the wish to strive to ensure production processes and the finished products remain "Forever better" and thus to make a contribution to the economic success of the company and to employment security. This is verified by the fact that most of those whose suggestions have been successful "keep at it", i.e. for them it is important that their ideas are applied and they continue to consider and submit others.

Environmentally relevant suggestions as a proportion of the total submitted for Miele in Germany



Works protection force and Miele fire service prevent environmental damage

Preventative and danger-avoidance measures also form a part of practical environmental protection at Miele. These duties are carried out by, among others, the works protection force and Miele fire service. In addition to the automatic fire alarm system, various technical alarms are also connected directly to the alarm control centre. As well as system faults, technical alarms also monitor environmentally relevant data such as, for example, pH values of effluent, levels of technical effluent in collection tanks, and many other parameters. Alarm and action plans control procedures should there be a warning signal.

Well-trained employees in the works protection force then rapidly carry out the necessary remedial measures.

The officially recognised Miele fire services at Gütersloh and at the Bielefeld, Lehrte and Oelde factories play an important role in preventing environmental damage and in risk prevention. Technical and specialist expertise combined

with the most appropriate equipment ensures a high level of protection against environmental damage.

Mutual assistance is the byword for the Miele factory fire service. Of equal importance to the efforts of the almost 80 active firemen is the work put in by around 40 members of the reserve and voluntary sections. After all, not all callouts occur during normal working hours but are often after hours and even at night. In Gütersloh alone, the committed members of the Miele fire service were called out 67 times in 2003. Within the factory site the main duty of the Miele fire service is prevention. This particularly applies to environmental matters and in the year of this report the Miele fire service provided assistance on nine occasions to prevent environmental damage. On request they also provide external assistance with equipment and manpower. The Miele fire service was called out twice to help at major incidents and provided valuable assistance to the official local services.

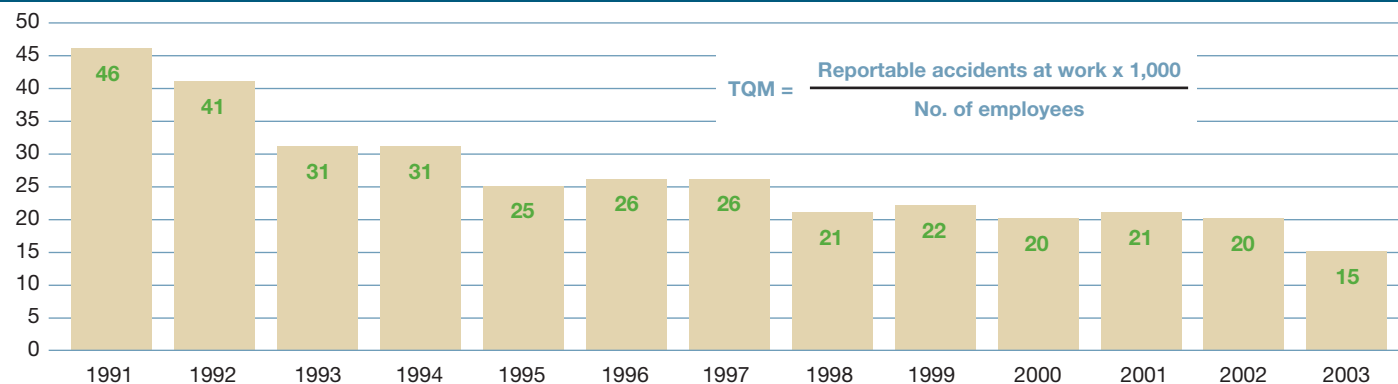
Development of number of reportable accidents at work - Miele Germany

The safety of employees at work and active environmental protection are major factory targets. The primary reason for the factory safety department is to ensure that the health and safety of employees is protected and maintained. Therefore work safety is an indispensable part of all tasks, and contributes to the success of the company and job satisfaction. Safe working practises must be taught, learned and maintained. Further education, and training and instruction courses are measures used to provide all employees with the necessary information and regular updates.

The company – blue and white collar workers – is obliged to work together to comply with all legal requirements and guidelines regarding accident avoidance and work safety. In addition there are a number of other sections in the company devoted to health and safety matters at work such as, e.g., factory safety specialists, the factory medical service and also the works council. Their involvement is necessary to help achieve the common aims of avoidance of accidents at work, occupational illnesses and damage to health. Regulations from professional associations, and technical safety rules and instructions contribute to individual safety and safety for all, and must therefore be complied with by all as, basically, every accident can be avoided.

Development of number of reportable accidents at work
Miele Germany

TQM = Reportable accidents at work per
1,000 employees, journey to and from work excluded

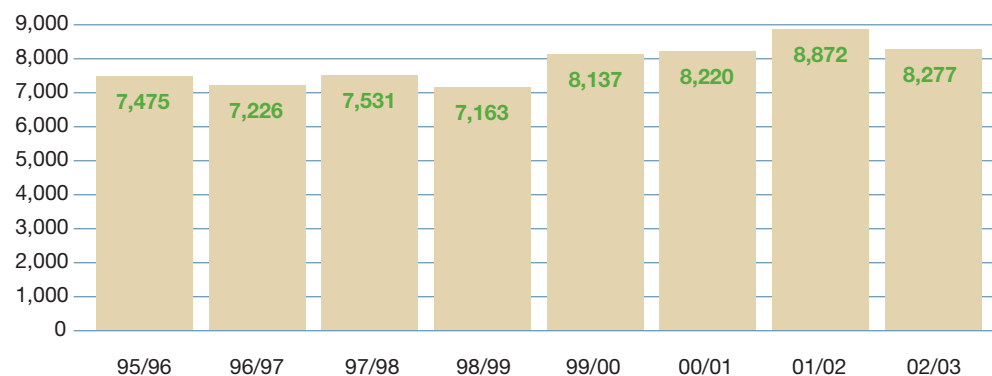


Environmental protection costs

Environmental protection costs are costs created by voluntary or legal environmental obligations in the company. These costs help to avoid environmental impact. A clear division is made between running costs and investments.

Running environmental protection costs are those for immission protection, lakes and river protection, waste management and noise and vibration protection in the form of service, maintenance and repair. They also include other services, disposal costs, analysis, administration costs, etc. They are established in accordance with the needs of the Federal Office of Statistics who require an annual survey of such outlay.

Environmental protection costs in EUR 1000s
Business years 1995/1996–2002/2003



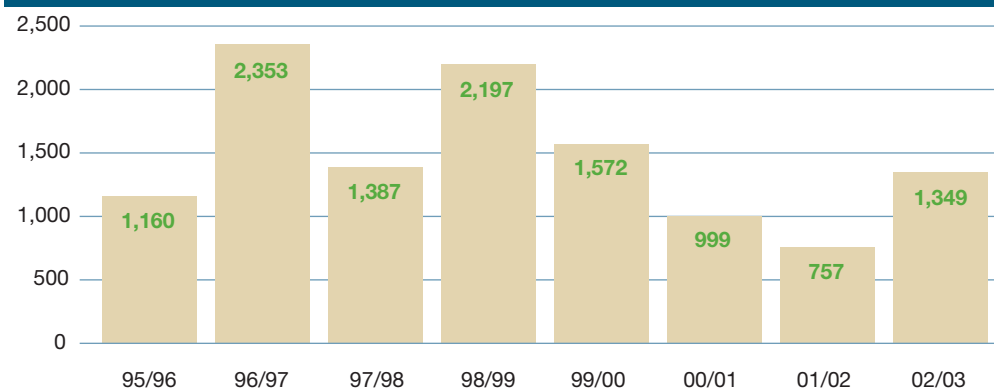
Investments in environmental protection

Environmental protection investment costs are those for installations for immission protection (e.g. filter systems, measuring instruments), lakes and river protection (effluent treatment plants, catchment basins and pans, secure drain systems), waste management (waste sorting systems, containers), energy management (heat exchangers, systems to use district heating, hard- and software for energy and environmental data recording) and noise and vibration protec-

tion (encapsulation of presses, vibration-absorbing press foundations). These investment costs can be established with the aid of the installation registers for all installations at the various factory sites.

The increase in environmental investment in business year 2002/2003 is due to general improvements of noise insulation measures and the building of a new scrap collection station at the Gütersloh factory.

Environmental investment costs in EUR 1000s
Business years 1995/1996–2002/2003



“Forever better” via new environmental protection targets

Motivated by the Miele company philosophy, environmental targets and programmes are laid down in all areas of the factory and their successful implementation is monitored by the Miele management system.

During the reporting period 2002/2003, 171 environmental targets were laid down, the appropriate implementation programmes developed and their completion monitored.

Main targets were energy and material consumption reductions, waste quantity and immission reductions and environmental-related improvement of other products with particular emphasis placed on reduction of energy and water consumption as well as the reduction of the number of different materials and screws/bolts used in products.

The successes achieved by laying down environmental targets and programmes provide the impetus to make further efforts in environmental protection.

Environmental targets and programmes – Status 09/2003

Miele total

Target area (Reduction/Improvement)	Programmes Current/In progress	Programmes Completed	Programmes Total
Energy consumption	16	9	25
Water consumption	9	3	12
Emissions	13	2	15
Waste	16	4	20
Material consumption	14	15	29
Products	16	11	27
Training/Motivation	7	4	11
Disposal safety	7	3	10
Organisational measures	7	2	9
Fire protection	4	3	7
Effluent	5	1	6
Total	114	57	171
Total percent	67%	33%	100%

PRODUCTS

Life cycle: Above average

It's the same with washing machines, ovens or vacuum cleaners: The long life of Miele domestic appliances is legendary. Many machines give good service for more than 20 years. Such durability clearly contributes to reductions in waste and to reduced use of resources. Natural reserves are reducing noticeably and the energy required for recycling used materials is high and has a negative effect on the environment. This all increases the need for energy-efficient, long-lived and recyclable consumables. Motivated by Miele's company philosophy and guided by the Miele phase cycle concept and the demands this places on products, environmental protection begins with the very first product idea. The environmental compatibility of production processes

is then considered, as are the use of mineral and fossil raw materials, and of course the consumption of electricity, water and detergents and similar during the later actual use of the product. The most recent scientific knowledge, consumer wishes and legal requirements are all taken into account during further product development. The later recycling of individual materials and the application of experiences gained by the disposal companies that recycle old machines are important aspects that are always taken into consideration by developers and product engineers at Miele. All these requirements are applied in the best possible way by Miele.

Life cycle of a Miele washing machine (4-person household)

Programme	Cottons 95° C	Cottons 60° C	Cottons 40° C	Cottons 40° C	Delicates 30° C	Woollens 30° C	Silks 30° C	Total
Uses per year	10 x ⁽¹⁾	102 x ⁽¹⁾	16 x ⁽¹⁾	96 x ⁽¹⁾	80 x ⁽¹⁾	6 x ⁽¹⁾	10 x ⁽¹⁾	320
Usage in percent	3%	32%	5%	30%	25%	2%	3%	100%
Programme duration in minutes	126	119	115	79	59	39	36	
Hours per year	20.16	203.09	30.67	126.40	78.67	4.16	5.76	468.91

Designed min. life expectancy: **10,000** > Duration of all programmes in hours per year: **468.91** > Life expectancy **over 20 years**

(1) Figures rounded off



Miele Update feature – Keeping things advanced. New washing and dishwashing programmes go easy on the environment

Miele appliances have a reputation for durability. However, technical progress does not stand still during an appliance's 20-year expected life cycle. In order to ensure that longevity and innovation are not mutually exclusive virtues, Miele was the first manufacturer, back in 1995, to introduce the rejuvenating function, called Update, for domestic appliances. This allows washing machines and dishwashers to be brought into line with current standards even after years of loyal service.

Despite the fact that Miele appliances already use water and electricity sparingly, future developments in the field of laundry or dishwashing detergents, or the advent of new fabrics, could have an implication on consumption levels. The Update feature allows the transfer of new programmes or the modification of existing ones as often as desired, and this can be carried out on site, wherever the machine is installed.

This is made possible via the electronic control and the complex sensor technology of Miele appliances. Programmes, i.e. the software, can be modified or exchanged retrospectively by the Service Department. The Update function relies

on an optical interface on the fascia panel. This interface allows a service engineer's laptop computer to be connected to the machine via a fibre-optic lead to download fresh data. A positive side effect of this technology is that in case of a machine fault, the technician may be able to identify the possible cause via the optical interface link and then rectify it quickly and easily.

The Update itself modifies chiefly the wash or rinse times, the water temperatures in the individual wash or rinse cycles, the water levels, the point in time for dispensing detergent or other agents and the programme sequence. The precise grade of Update capability depends on which parameters are taken into account at the time of manufacture and are included, in combination with their associated sensors or drives as appropriate, in the software. It is also possible to reprogram individual selector switch and push-button settings. The first programme update to save water and electricity with washing machines was distributed in 1998.

Thanks to the Update function, Miele washing machines and dishwashers are able to rise to the challenges the future holds in store. Flexibility which, above all, benefits the environment.



Miele@home InfoControl makes a networked home a reality

The smart home is soon to become reality. Greater convenience, additional safety and a wide range of services and the fascination of technical sophistication. Miele started the ball rolling in summer 2004 with the introduction of the Miele-InfoControl. The Miele InfoControl is the first step of Miele@home, the system for a networked household.

The mobile display unit provides a status report on all Miele domestic appliances connected to the system and prompts action where necessary. This can be something as simple as the fact that a programme has ended or a reminder to baste the Sunday roast. And, in the event of a fault, for example a freezer door left open by mistake, Miele@home InfoControl issues an immediate optical or even, if desired, acoustic alert.

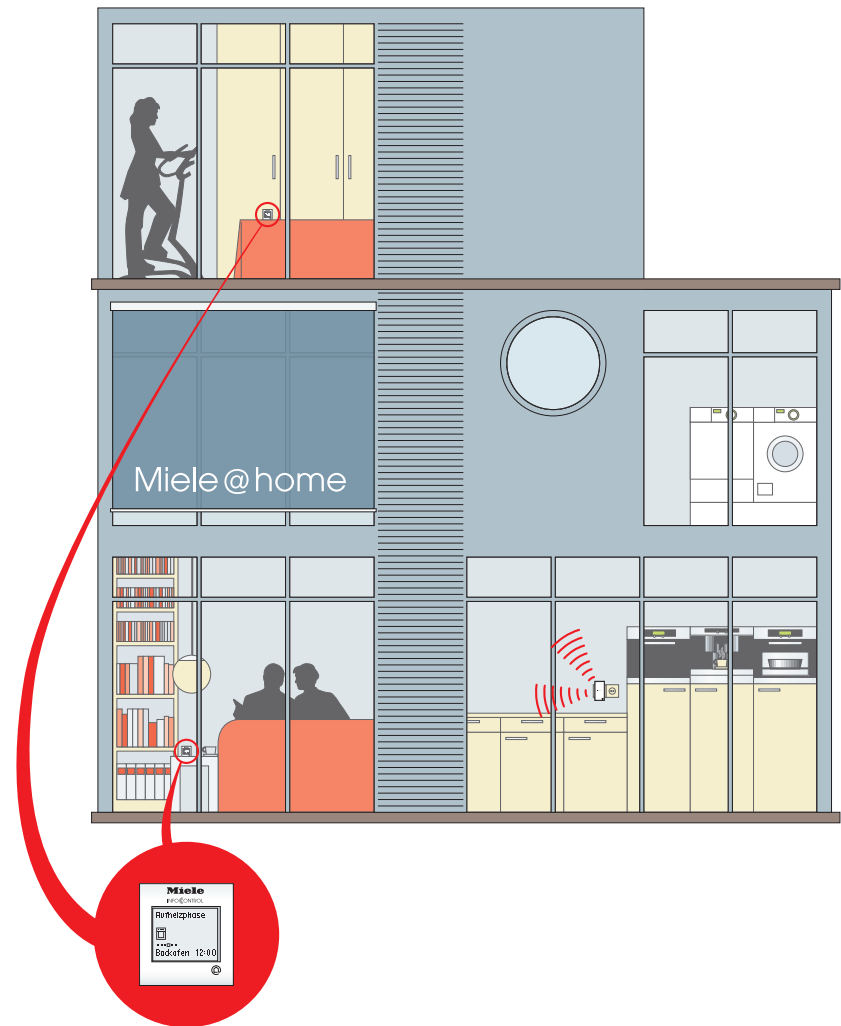
In designing Miele@home InfoControl, both safety and convenience were high on the agenda. Whether it's the washing machine down in the basement, the freezer in the utility room or the oven in the kitchen – all appliances are InfoControl-enabled. This takes a great workload off appliance owners and is a boon to persons with physical disabilities, or the elderly and infirm.

The new Miele InfoControl is a development on a mobile status indicator first presented in 1996. The first version, however, represented a distributed setup in which each Miele appliance had its own transmitter that sent data directly to the mobile receiver unit. On today's new and improved version, a base station does away with the redundant duplicity of individual links. Each domestic appliance hooked up to InfoControl simply sends its data down the supply lead into the domestic wiring system, an approach referred to as PowerLine Communications, or PLC for short.

PLC is simple, uncomplicated and can be used in conjunction with any electronically controlled appliance. Transmitted data effectively hitches a lift by piggybacking the power supply. In this case the mains voltage is the carrier on which data is modulated. The electronic controls on Miele machines equipped with a communication module are responsible for modulating and sending the signals. Given that this system relies on existing cables which already reach into every part of the home, it lends itself ideally for retrofitting without the need for rewiring.

Miele@home InfoControl makes a networked home a reality

More time for other matters: In an intelligent home the Miele@home InfoControl keeps its eye on everything. This smart pocket-sized device speaks eleven languages and is able to supervise up to eight domestic appliances at the same time.

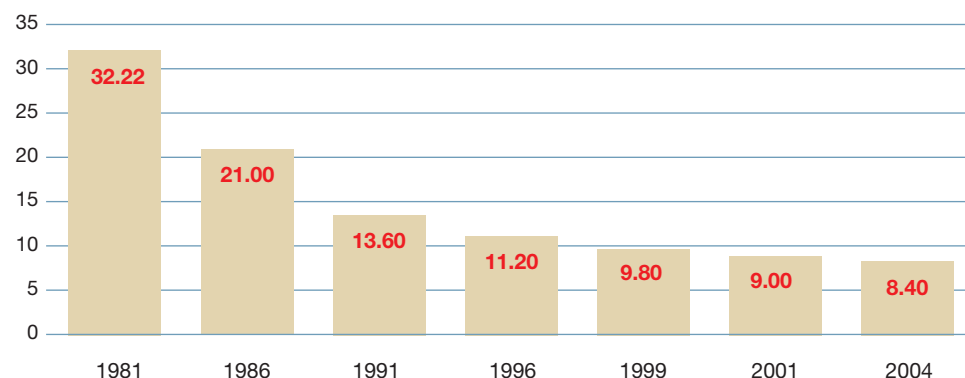


The development of consumption figures presented on the following pages refer to the total production. This means:

Development of consumption figures: Washing machines

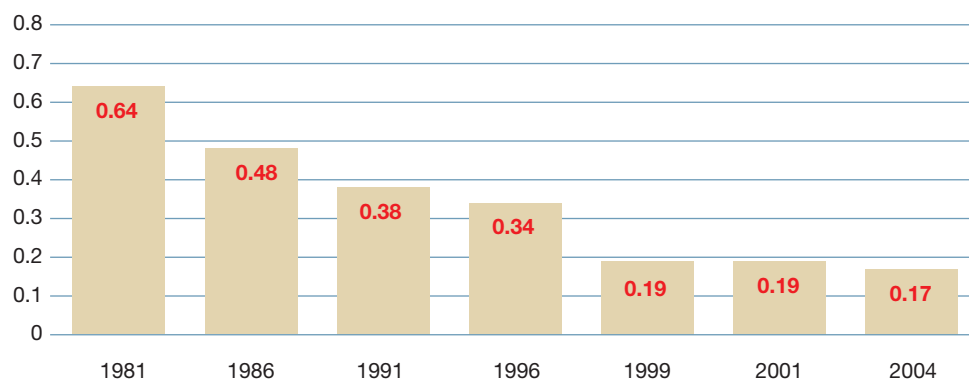
Reduction of water consumption
in l/kg dry laundry

74% reduction over 23 years



Reduction of electricity consumption
in kWh/kg dry laundry

73% reduction over 23 years



There is no flagship ecological model, all models of the appropriate product group are included in calculations. Miele does not have solitary image products, fundamentally all machines are designed and constructed to be as economical as possible.

Domestic washing machines

Since 1981 Miele has reduced water consumption in domestic washing machines by around 74% and electricity by 73%.* This is thanks to the consistent introduction of electronic controls combined with modern sensor technology. They have made it possible to optimise wash, rinse and spin processes so that electricity and water consumption have been greatly reduced while at the same time wash, rinse and spin performance have been increased. The following were the main contributors to the reductions in water and energy consumption:

- Temperature reduction with economy programmes
- Introduction of intelligent water intake control
- Introduction of electronic controls
- Load-dependent control
- Honeycomb drum and optimised wash programmes

* Based on: Standard programme – Cottons 60°C without pre-wash

Domestic washing machines

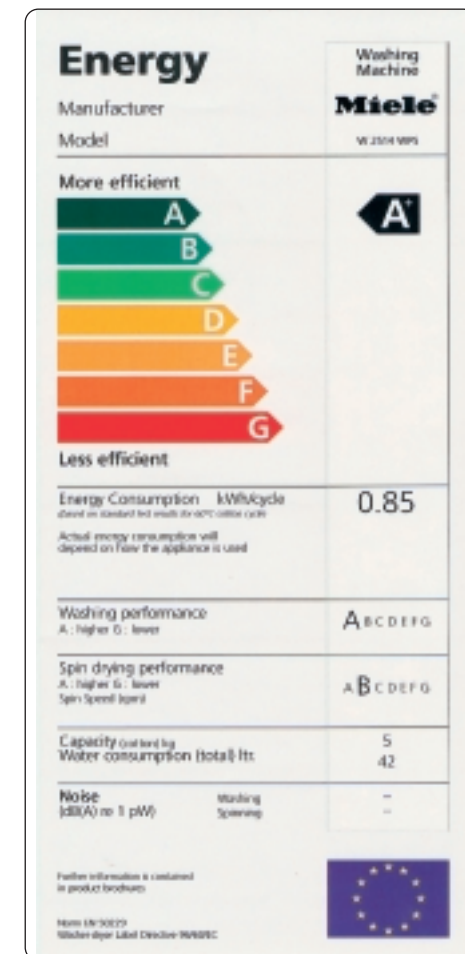
Top marks for energy efficiency

The consistent application of technological advances ensures that Miele washing machines have the highest levels of energy efficiency. All Miele washing machines manufactured in 2003 earned the classification A for energy consumption and wash efficiency. There are only variations in the spin efficiency classification depending on the spin speed selected by the operator. These results clearly show the value that Miele places on environmental protection.

Classification of Miele washing machines in accordance with the energy consumption marking law

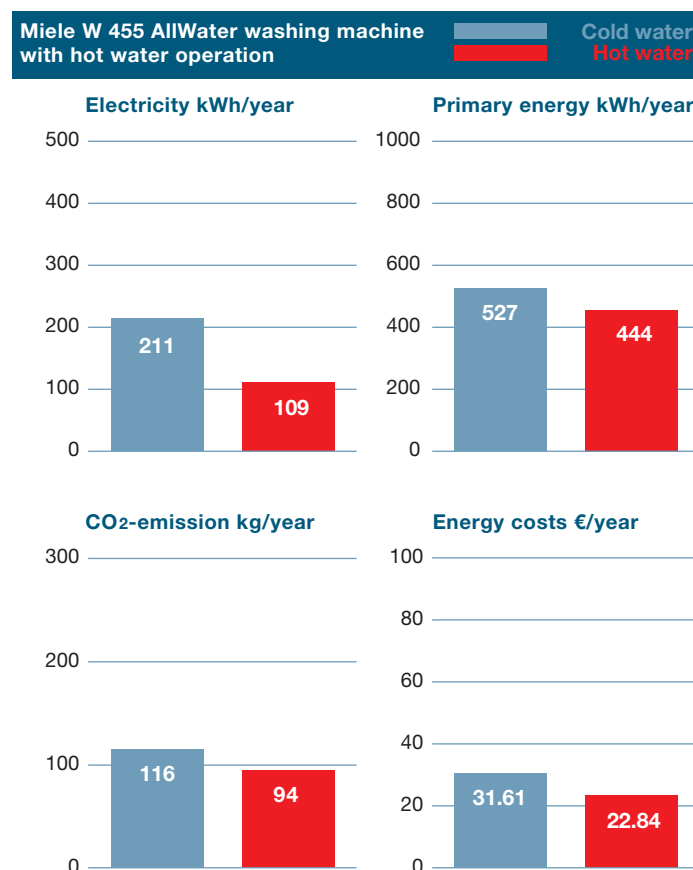
Classification	Energy efficiency	Washing efficiency	Spin efficiency
A	100%	100%	21.4%
B	0%	0%	72.7%
C	0%	0%	5.9%
D	0%	0%	0%
E	0%	0%	0%
F	0%	0%	0%

Total production calendar year 2003



Domestic washing machines

A special contribution to environmental protection is provided by Miele with the W 455 WPS AllWater washing machine which can be connected to a hot or alternative water supply as well as cold water. Compared to a solo cold water connection, using the W 455 WPS AllWater with a hot water connection as well can lead to considerable annual savings for a 4-person household.



ted to a hot or alternative water supply as well as cold water. Compared to a solo cold water connection, using the W 455 WPS AllWater with a hot water connection as well can lead to considerable annual savings for a 4-person household.

Aim for the future: The energy efficiency of Miele washing machines should be further improved by consistent application of technological advances.

Savings:

- 48% electricity
- 16% primary energy
- 19% carbon dioxide (CO₂) emissions
- 28% costs
- 15% time

Calculation assumptions:

- 4-person household
- 320 mixed programmes/year*
- Electricity cost: EUR 0.15/kWh
- Natural gas cost: EUR 0.038/kWh
- Energy utilisation factor: 40%
- Energy utilisation factor – Hot water: 87%**
- Hot water temperature: 55°C
- Cold water run-off before hot is present: 0 l

* (5% Cottons 95°C – 30% Cottons 60°C – 6% Cottons 40°C – 16% Minimum iron 60°C – 11% Minimum iron 30/40°C – 30% Delicates 30°C – 2% Woollens 30°C)

** This factor takes into account the energy requirement for the provision of natural gas as well as an efficiency level for gas-fired water heating of 98%.

Tumble dryers

More than 70% of domestic property built in Germany in the last few years has a mains gas supply. Therefore Miele developed the T 478 G gas-heated vented dryer as an environmentally friendly alternative to electrically heated dryers. This dryer has a new type of burner with the advantages of low energy consumption, lower operating costs and short drying times.

In spite of the relatively high power station efficiency factor of 40% (relationship between electricity produced and the primary energy needed for it), compared with an electrically heated dryer, the gas-heated vented dryer achieves a primary energy saving of 43% in conjunction with a reduction in carbon dioxide (CO₂) emission of almost 48%.

Comparison between electrically and gas-heated vented tumble dryers

	T 223 Electrically heated dryer	T 478 G Gas-heated dryer	Savings with gas-heated dryer	
Electricity	3.30 kWh	0.25 kWh	3.05 kWh	
Natural gas	–	0.43 m ³	–	
		4.06 kWh		
Primary energy	8.25 kWh	4.69 kWh	3.56 kWh	43%
CO ₂ emissions	1.815 kg	0.950 kg	0.865 kg	48%
Duration	84 min	51 min	33 min	39%
Operating costs	0.50 €	0.21 €	0.29 €	58%

Basic values:

Primary energy: Calculated annual power station efficiency factor 40%

CO₂ emissions: Electricity 0.55 kg/kWh; Gas 0.20 kg/kWh

Costs: Electricity EUR 0.15/kWh; Gas EUR 0.0384/kWh (related to Ho)

Gas data: G20; 15°C; 1013 mbar, Hu 9.45 kWh/m³; Ho 10.49 kWh/m³, d = 0.55

Reference data: 5 kg Standard load A; 70% residual moisture; Programme: Cottons Normal dry

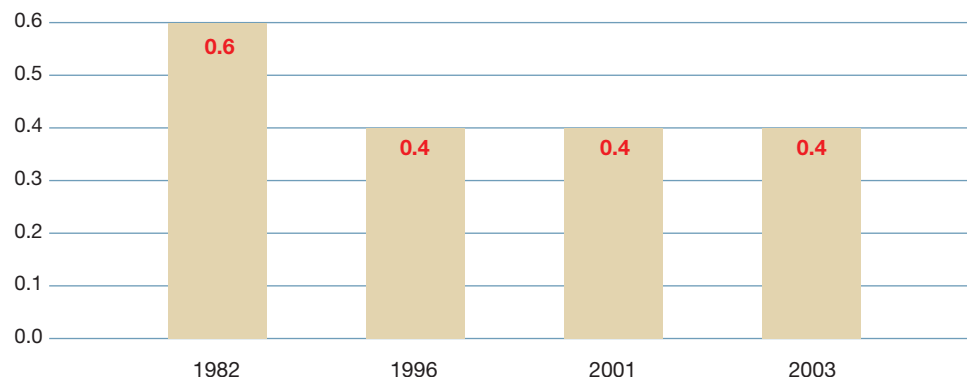
Ho = Upper calorific value

Hu = Lower calorific value

Development of consumption figures: Washer extractors – Professional (electrically heated)

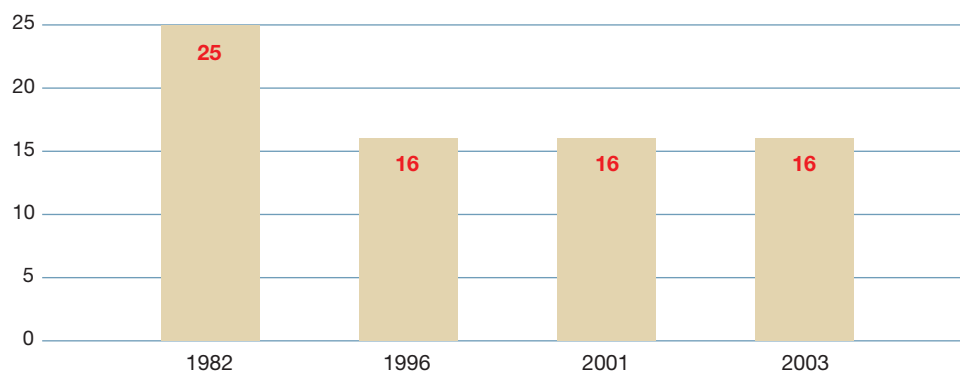
Reduction in electricity
consumption kWh/kg dry laundry

Reduction of approx 33% since 1982



Reduction in water
consumption l/kg dry laundry

Reduction of approx 36% since 1982



Commercial laundry care

Miele Professional

Machines and equipment for commercial use are known as Miele Professional models. They include for example washer-extractors and tumble dryers with a capacity of up to 32 kg for the hotel trade or laundries. Depending on model, these machines can be heated with electricity, steam or environmentally friendly natural gas. Modern wet-cleaning equipment gives commercial laundries the opportunity to work without using perchloroethylene (PER) and chlorofluorocarbons (CFCs) – an ecological aspect which is of particular interest to many consumers. Technologies such as water recycling with washer-extractors, 2/3 pre-heated air recirculation with large tumble dryers or direct heating of rotary ironers all lead to reduced environmental impact and greater economy.

A processing modification resulting in additional energy saving with washing machines has been made. This is the hot rinse in the final rinse cycle which leads to a reduction in the residual moisture of the load after the final spin. This leads to further energy savings in the subsequent processes such as drying or ironing.



Commercial laundry care Miele Professional

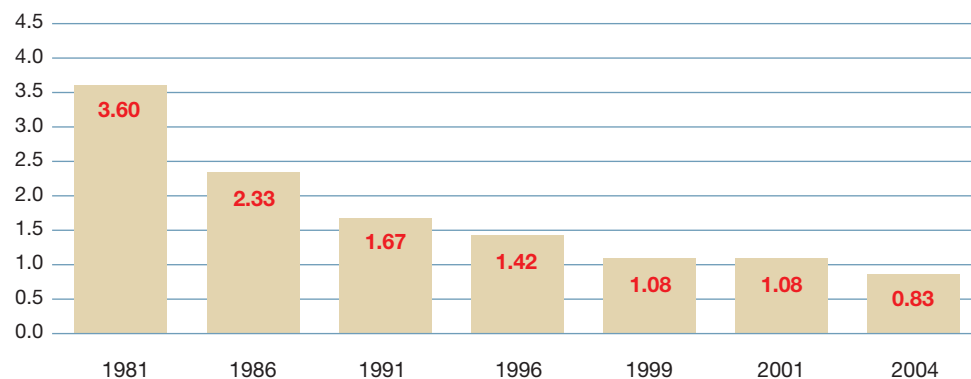
New ways of doing things

Miele works together with customers operating commercial Miele machines and installations to find the best solutions to treat the environment gently. This happens even before new legal regulations may come into force. An example is provided by improvements in wet-cleaning installations. These clean outer garments in an environmentally friendly manner without the use of chlorofluorocarbons (CFCs) or perchloroethylene (PER). Miele has also designed numerous other processes, for example for cleaning and degreasing in industrial cleaners: the cleaning process uses water and chlorine-free, biodegradable detergents. The large number of industrial applications developed by Miele show that these systems achieve excellent results whilst at the same time being gentle on the environment.

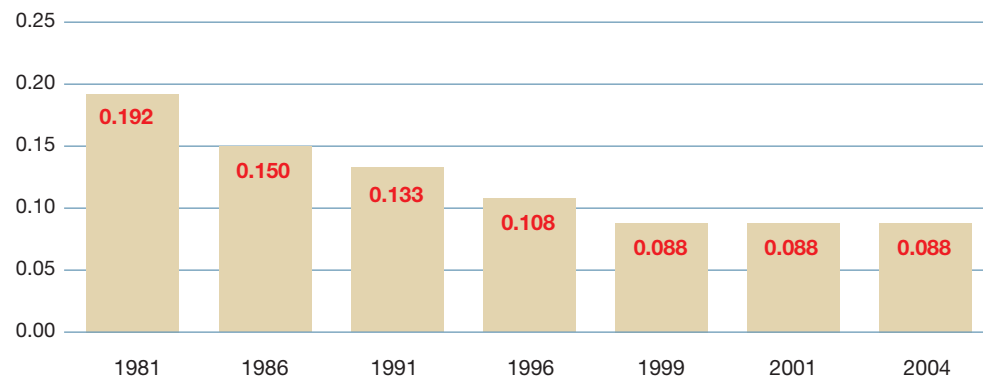
Development of consumption figures: Dishwashers

Reduction in water consumption
in l/standard place setting*

77% saving in 23 years

Reduction in electricity consumption
in kWh/place setting*

54% saving in 23 years



Dishwashers

The continuous further development of Miele dishwashers has, over the last two decades, led to a reduction in consumption of water by approx. 77%, of electricity by approx. 54% and of salt by approx. 74%.*

Water consumption has been reduced by the following:

- Modified water softening
- Optimised softener reactivation
- Modified circulation pump
- New filter technology
- Improved spray arm control
- Larger capacity
- New water path control

Electricity consumption has been reduced by the following:

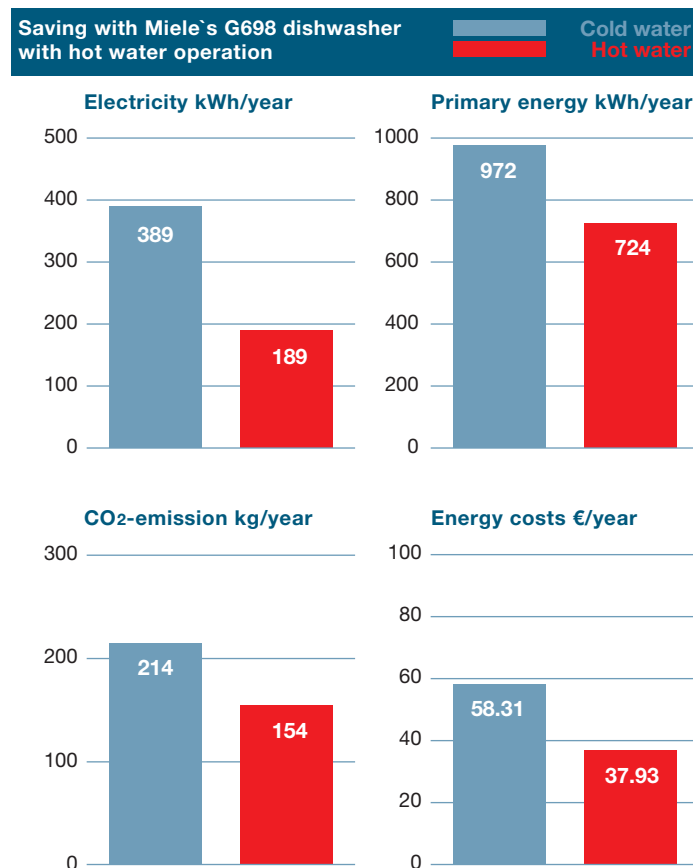
- Reduction of water consumption due to use of new wash and filter technology
- New drying systems
- Temperature reduction with economy programmes
- Larger capacity
- Electronic controls and monitors

Salt consumption has been reduced by the following:

- Changeover from high-capacity to Monobloc water softener
- New water paths (water inlet mixer for reactivation)
- 6-stage water hardness level selector
- Electronic water hardness sensor and adjustment

* Standard programme Energy save (top and mid-range models)

Dishwashers



Miele dishwashers can be connected as standard to a hot and cold water supply. Connecting to hot water can lead to considerable annual savings. The following example applies to a 4-person household:

Savings:

- 51% electricity
- 25% primary energy
- 28% carbon dioxide (CO₂) emissions
- 35% costs
- 17% time

Calculation assumptions:

- 4-person household
- 330 mixed programmes/year*
- Electricity cost: EUR 0.15/kWh
- Natural gas cost: EUR 0.038/kWh
- Energy utilisation factor: 40%
- Energy utilisation factor – Hot water: 87%**
- Hot water temperature: 55°C
- Cold water run-off before hot is present: 0 l

* (65% Normal 55°C – 25% Universal plus 55°C – 10% Economy 45/55°C)

** This factor takes into account the energy requirement for the provision of natural gas as well as an efficiency level for gas-fired water heating of 98%.

Dishwashers

The summary (classification of Miele dishwashers) shows that with regard to energy savings Miele does not just select one flagship model but includes all those in a range. All dishwashers produced in 2003 had the energy classification A. The percentage of models achieving the classification A for cleaning performance increased from the previous figure of around 54% to 70%. Numbers awarded an A classification for drying

efficiency also increased dramatically – from 36% to 68%. This remarkable change clearly shows that at Miele energy efficiency is given the highest priority during product engineering and development.

Aim for the future: In coming years the proportion of dishwashers achieving the classification A in the washing and drying efficiency categories should be further increased.

Classification of Miele washing machines in accordance with the energy consumption marking law

Classification	Energy efficiency	Cleaning performance	Drying performance
A	100%	70.3%	68.4%
B	0%	29.7%	18.7%
C	0%	0%	12.3%
D	0%	0%	0.6%
E	0%	0%	0%
F	0%	0%	0%
G	0%	0%	0%

Total production calendar year 2003

Built-in and wall ovens

The further development of fan oven technology combined with the possibility of using all levels of the oven at the same time, optimisation of heat insulation, electronic temperature control, as well as automatic residual heat utilisation, have led to reductions in energy consumption in these appliances of around 38% in the period between 1981 and 2001. This is even more remarkable considering that the number of consumer benefits, i.e. the features, such as an electrical/electronic clock, catalytic cleaning of the vapours produced in the oven during baking, cooling fan to reduce exhaust air temperature and electronic temperature monitoring and operational state indication have increased greatly over the same period.

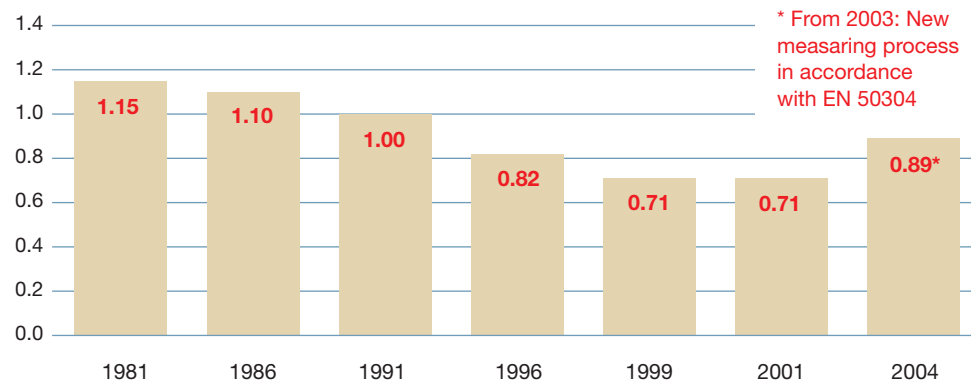
The increase in specific electricity consumption since 2003 is due to a modification in the standard for establishing the figure.

Consistent research and development work has enabled the power rating of the electronic timers to be reduced to less than 1 W. This ensures environmentally friendly consumption levels during stand-by operation.

A further contribution to environmental protection is provided by the CleanEnamel oven interior combined with the associated greatly reduced cleaning effort required.

Aim for the future: Further improvement of the energy efficiency as well as the classification A for as many Miele ovens as possible within the framework of the energy consumption marking law (energy label).

Reduction in specific electricity consumption



Classification of Miele ovens in accordance with the energy consumption marking law

Classification	Energy efficiency
A	44.9%
B	40.3%
C	14.8%
D	0%
E	0%
F	0%
G	0%

Total production calendar year 2003



Refrigeration

As a result of the introduction of more effective insulation, and the optimisation of the cooling circuit and its control, electricity consumption with fridges and freezers has reduced considerably over the last 15 years. With freezers this was greatly aided by the introduction of compressors with cooling requirement-dependent power control.

Isobutane is now the only refrigerant used with all fridges and freezers. It is a CFC- and FC-free carbonated gas. Also insulation foaming for all refrigeration appliances is now only carried out using the CFC- and FC-free gas pentane, a member of the natural gas family.

Aim for the future: To ensure that as many Miele fridges and freezers as possible gain the classifications A+ or A++. This is a high target that Miele hopes to achieve by innovative further product development.

Classification of Miele refrigeration appliances in accordance with the energy consumption marking law

Classification	Energy efficiency
A++	10.6%
A+	23.5%
A	56.1%
B	9.8%
C	0%
D	0%
E	0%

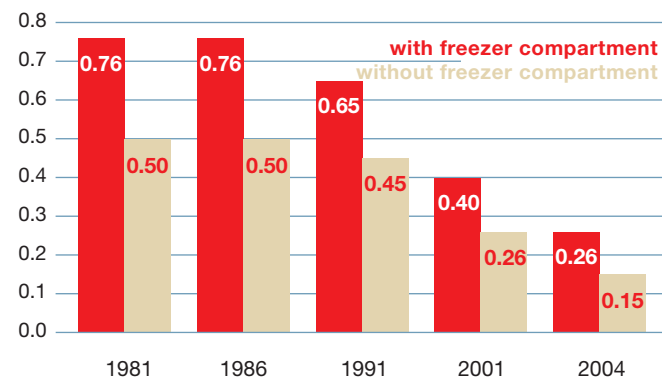
Product range from 2004

Refrigeration

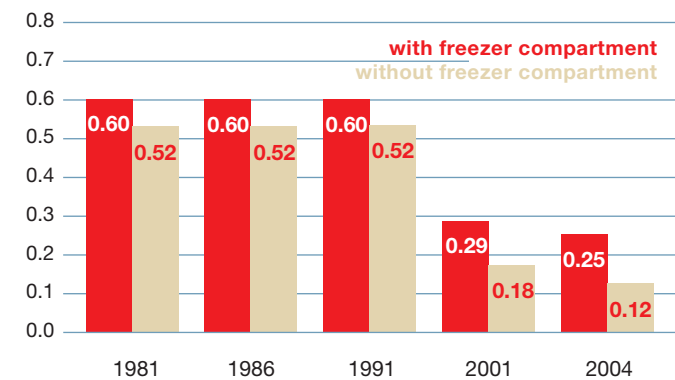
Miele fridges

Development of consumption figures

Reduction of electricity consumption per 100 l in 24 h Capacity up to 150 l - 70%
Savings over 23 years: - 66%



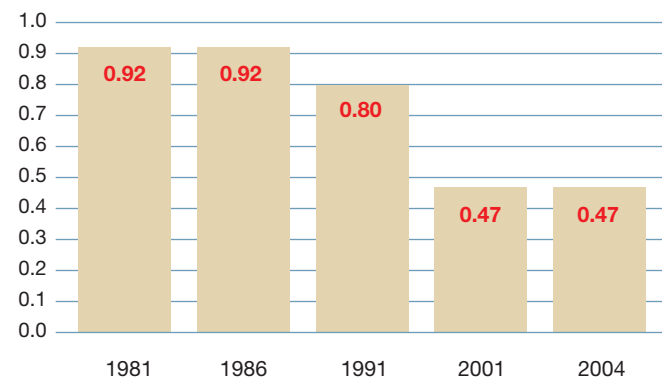
Reduction of electricity consumption per 100 l in 24 h Capacity 151 to 300 l - 77%
Savings over 23 years: - 58%



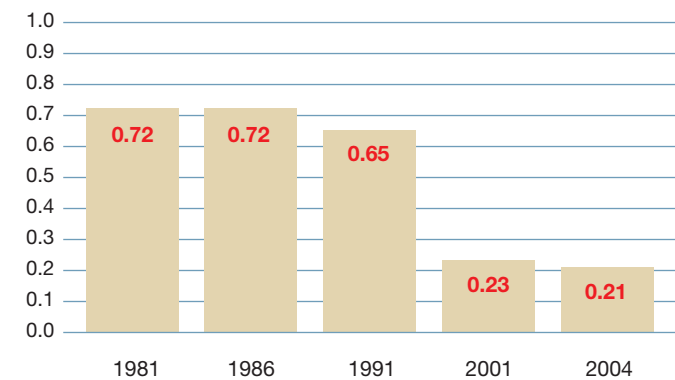
Miele freezers

Development of consumption figures

Reduction of electricity consumption per 100 l in 24 h Capacity up to 150 l - 49%
Savings over 23 years: - 49%



Reduction of electricity consumption per 100 l in 24 h Capacity 151 to 300 l - 71%
Savings over 23 years: - 71%





At home in a Miele kitchen

Comfortable, modern but timeless design, and a quality that can hardly ever be found with series production: Miele kitchens are manufactured in the Warendorf factory – one of the most modern kitchen production facilities in Europe. Each kitchen is unique. Well thought out housing unit solutions and ingenious details are planned individually and for this only Miele offers 18 different base unit corpus heights. The typically demanding Miele requirements also apply here. Materials, processing and durability are all planned to contribute to an above average kitchen life. As with all Miele products, kitchens are often used for 20 to 25 years or even longer.

Miele always takes care to select ecologically tenable raw materials. The test criteria for Miele kitchens greatly exceed furniture industry standards. For example Miele uses only particle boards with the lowest emission rating (E1). E stands for emission classification and this grade means that the emission level is very low. The timber used by Miele comes mostly from Europe and as far as possible native woods such as oak

are used. Other woods such as maple are obtained from North America.

Plastics: The use of polyvinyl chloride (PVC) is avoided as far as possible at Miele even though the excellent working properties of this material make it difficult to find a substitute. Miele however uses substitute materials that have similar properties but that are much more environmentally friendly.

The use of ecologically tenable raw materials means that during later recycling it is possible to use the wood, wood materials and their bonding products in their entirety for energy and heat production. The use of other fuels such as oil and gas can therefore be reduced accordingly.

Polyurethane lacquers at Miele are being replaced more and more by water-based lacquers which are much more environmentally friendly. When selecting adhesives and cements their lack of environmental impact has long been an important consideration. Other materials are glass, and metals for, e.g., brackets and hinges. In Miele kitchens these last much longer than required by furniture industry standards.

Material circulation: High metal content for good recyclability

Miele domestic appliances such as ovens, dishwashers, washing machines, tumble dryers and washer-dryers consist primarily of metal. The metal content of washing machines for example is around 83% by weight. The proportion of metal in machines for commercial application is almost 90%. These include catering dishwashers, industrial cleaners for metal-working and electronics applications through to large washer-extractors, tumble dryers and rotary ironers. This high metal

content makes the shredding and subsequent fine sorting of end-of-life commercial machines economically and ecologically viable.

Even now by reducing the number of materials, and different screws and fastenings, and via a complex arrangement of electrical and electronic components, Miele is ensuring that products can be easily separated manually in the future. This approach also means that less time is required should a repair be necessary.

Aim for the future: In conjunction with recycling companies Miele is looking into the possibility of recycling technical plastics and elastomers currently considered as waste materials needing disposal. As well as mechanical preparation of valuable plastics, other possible options for the use of these recycled materials are as a reducing agent in blast furnaces for iron smelting, as a primary material for gasification for methanol production, as an alternative fuel in the rotary kilns of the cement industry, or in power stations. In all these processes discarded plastics and elastomers serve as a substitute to conserve fossil fuels such as heavy heating oils and coal.

Domestic washing machine materials

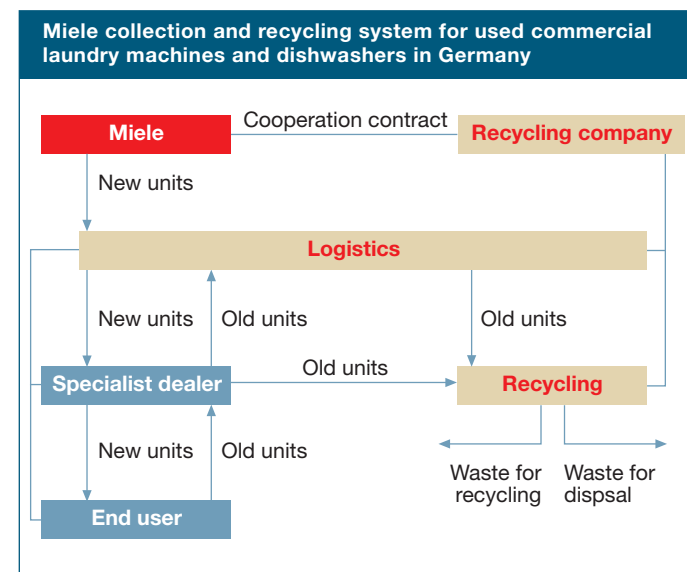
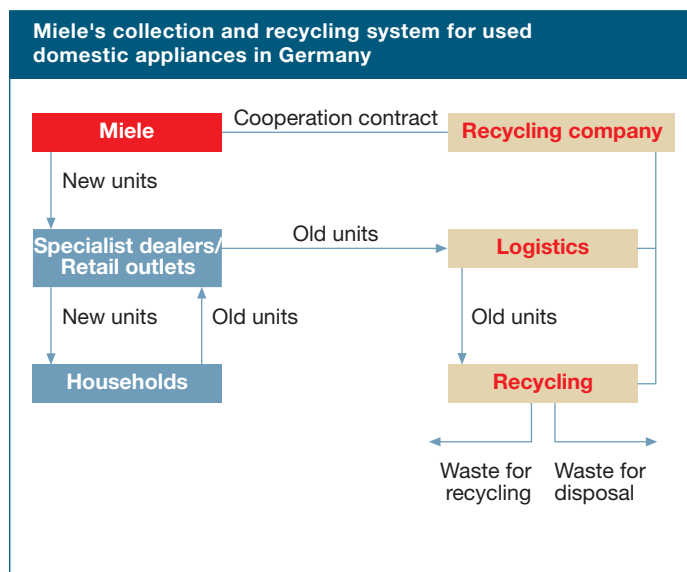
W 2627	Weight 98.29 kg	
Material groups	Weight in kg	Proportion %
Enamelled sheet metal	10.44	10.62
Steel alloys (stainless steel)	10.43	10.61
Unalloyed steels	20.60	20.96
Cast iron	29.70	30.22
Aluminium	1.90	1.93
Other non-ferrous metals	2.22	2.26
Drive motors	6.61	6.72
Metal proportion	81.90	83.32
Glass	1.63	1.66
Plastics / Elastomers / Composites	9.13	9.29
Electrical components / Cables / Wires	2.61	2.66
Electronic modules	0.49	0.50
Sundry materials	2.53	2.57
Non-metallic proportion	16.39	16.68
Total	98.29	100

Material circulation: High metal content for good recyclability

This can lead to the proportion of disposable waste remaining after shredding of Miele domestic appliances dropping to less than 10% by weight.

Since mid-June 1994, Miele has offered its dealers in Germany a scheme with blanket coverage with which end-of-life domestic appliances, both small and large, are collected and recycled irrespective of their brand. Since July 1995, a corresponding scheme has been available for commercial machines.

Since August 13, 2005 all manufacturers/importers/retailers of electrical and electronic units in the EU member states are obliged to take back old products and transport them, for example, to municipal collection points, free of charge. In order to comply with this requirement, Miele, in cooperation with renowned recyclers, conceived an economically and ecologically viable return and recycling system. The experience already gained with the existing return and recycling systems provided a sound basis for this development.



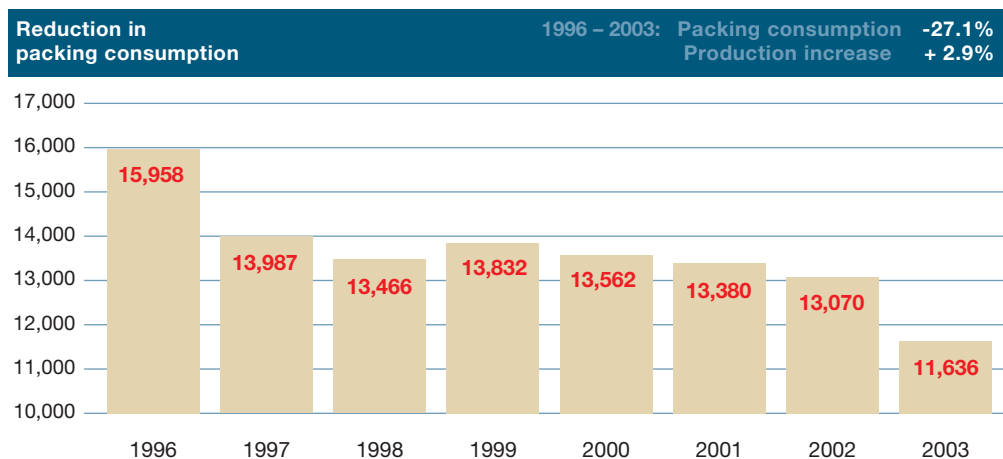
Packaging: Where less is more

The protection of high-value technical machines against damage in transit is not just a service to the customer but is also of great importance for ecological reasons. Damaged machines require new components or even complete replacement machines to be manufactured and this uses up valuable resources. Therefore the following motto is applicable at Miele: As little packaging as possible but as much as is necessary.

By utilising the most modern packaging technology and in spite of an increase in production of 2.9% during the period 1996 to 2003, it has been possible for Miele to reduce the total consumption of packaging materials by 27.1%.

Miele uses only packaging materials that can be recycled.

The main components are corrugated cardboard which can consist of up to 100% waste paper, polyethylene foil, untreated solid wood from properly maintained forests and expanded polystyrene. With expanded polystyrene, 98% of the volume is air and only 2% is polystyrene – a pure hydrocarbon – and it is expanded using only steam and the smallest possible quantity of pentane, a natural gas. The following pages show details of the use of individual packing materials and their recycling systems.

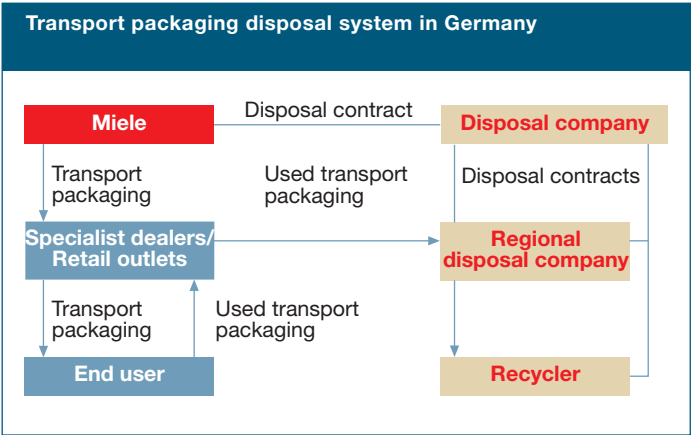


Packaging: Where less is more

Miele transport packaging

Packing material	Function	Application	
		Major domestic appliances	Kitchen furniture
Corrugated cardboard or foil (PE)	Dust protection	•	•
Formed sections (EPS, PUR)	Shock absorbing	•	•
Solid wood	Support during lifting and clamping	•	•
Banding	Securing packaging	•	•

Worldwide Miele transport packaging is tailored to product requirements and aimed at providing ample protection while conserving resources.



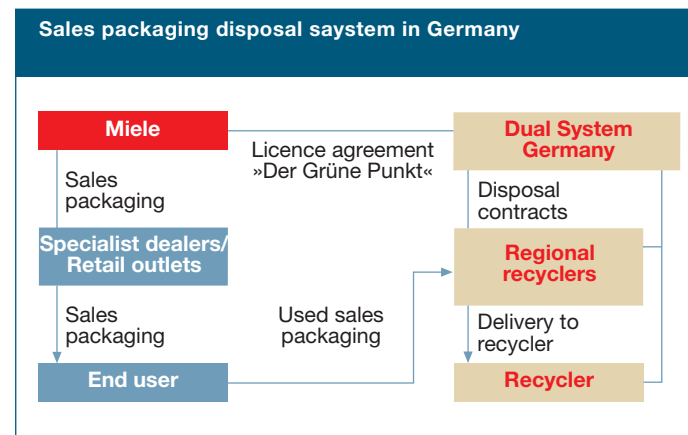
In Germany, Miele's disposal concept for transport packaging ensures that valuable materials are recycled.

Packaging: Where less is more

Miele sales packaging

Packing material	Function	Application				
		Microwave ovens	Vacuum cleaners	Accessories	Dustbags	Spare parts
Cardboard / Corrugated cardboard	Dust protection	•	•	•	•	•
Foil (PE)	Anti-scuffing protection	•	•	•	–	•
	Bag for small parts					
Formed sections (EPS, PUR)	Shock absorbing	•	•	–	–	–
PUR foam/PE foil wrapped	Shock absorbing	–	–	–	–	For large fragile parts

Worldwide Miele sales packaging consists exclusively of recyclable materials.



In Germany, Miele makes use of existing disposal and recycling channels to handle sales packaging.

S E R V I C E

Miele Service:

The best in the branch since 1992

Fast specialist help is needed when a domestic appliance stops operating correctly. The service technician is the saviour in such emergencies, assuming he arrives quickly, has the necessary know-how and can carry out repairs reliably.

According to consumers, Miele has the best after-sales service operation of any domestic appliance manufacturer in Germany. In 2003 Miele was again awarded first place by Kundenmonitor Deutschland as in fact they were every year since the study was first commenced in 1992. In 2003 Miele was at the front with a mark of 2.13 (marks are given on a scale ranging from 1 to 5 with 1 being the best). Yet again this clearly exceeded the top mark of 2.19 awarded to Miele last year.

92% of all Miele customers were satisfied with the company's after-sales service and two thirds

of these were either "totally satisfied" or "very satisfied". Consumers particularly praised the friendliness of employees, punctuality, speed of response and job completion, and also the accessibility of the service. Specialist advice and service solution suggestions were also considered to be better than the rest of the branch. The Miele Service Department earned the top mark of 1.82 for the category of being recommended to friends and acquaintances and the highest mark was also gained for the important question regarding repeat purchasing. 96% of Miele customers would buy a Miele appliance again next time. The Kundenmonitor Deutschland 2003 survey was based on a sample of 25,377 people. The results range from top-of-the-class 1 ("completely satisfied") to bottom-of-the-class 5 ("unsatisfied"). Around 16% of those questioned had called out a service department to repair an electrical domestic appliance.

Miele Service:**The best in the branch since 1992**

The high quality of Miele service is, above all, thanks to the specialist knowledge of the technicians who have all undertaken extensive training and regularly take part in additional training courses. A further important point is speed of response. Service orders will normally be dealt with within one to two days and spares provided within 24 hours. Computer controlled route planning ensures that vehicles and other resources are optimally deployed. Usually the technician can clear up a problem on his first visit as

service vehicles all carry an extensive range of spare parts. A real Miele bonus: The availability of spare parts is guaranteed for at least 15 years after production of a model is discontinued. Currently more than 60,000 different spares are stocked and shipped worldwide from Miele's Gütersloh factory.

A paperless electronic archiving system which records delivery notes data, spare parts documentation and completed service calls has been in use for a long time now. It allows speedy access to past information and greatly reduces paper consumption.

PRODUCTION

Gütersloh factory

Miele's founding factory site at Gütersloh also includes the administrative headquarters, the central distribution warehouse, the central spare parts store and the electronics factory. The site is to the north-east of the town of Gütersloh, about 1.5 km from the town centre as the crow flies, and has its own link to the main-line railway and a good connection to the road network, in particular to the arterial road to the A2 motorway.

4,812 people are employed at Miele's Gütersloh factory and around 2,780 of these are directly involved in manufacturing. Washing machines, tumble dryers, washer-dryers, electronic controls for all Miele machines and a multitude of parts for other Miele sites are developed and manufactured here on an area of more than 429,000 m².

The most significant aspects in the manufacturing processes for washing machine and tumble dryer production are cast iron castings, punching, forming, drilling, milling, welding, enamelling, powder coating, assembly and testing.

The most important manufacturing processes in electronic control production are component placing on PCBs, reflow and wave soldering, and testing.

The main raw materials used in production are steel, galvanised steel, stainless steel, cast iron scrap, pig iron, enamel and powder coating powder.

Areas of particular environmental significance:

- Foundry
- Surface treatment installations
- Central effluent treatment plant for technical effluent from the surface pre-treatment and final treatment areas
- Wells supplying water for production processes
- Waste management installations
- Dangerous goods stores
- Central oil store
- Filling station for company vehicles



Bielefeld factory

The Miele factory in Bielefeld is situated in the central industrial area and is linked to an arterial road to the A2 motorway.

The Bielefeld plant employs 1,750 people of whom about 1,282 work directly in production. Domestic dishwashers, vacuum cleaners and laboratory washer-disinfectors are developed and manufactured here on an area of 117,505 m².

The main raw materials used on this site are steel, galvanised steel and stainless steel.

The most important manufacturing processes are punching, forming, welding, passivation, assembly and testing.

Areas of particular environmental significance:

- Central effluent treatment plant for technical effluent from the degreasing, passivation and wash baths for dishwasher cabinets
- Dangerous goods store
- Central oil store
- Filling station for company vehicles



Oelde factory

The Oelde factory is located in a rural setting in the suburb of Lette. It can be reached via the A2 motorway Oelde or Rheda-Wiedenbrück exits and the B64 and B475 main roads.

Miele's Oelde factory employs 595 staff, 395 of whom work in production. Built-in and wall ovens, compact ovens with microwave, and hob control units are developed and manufactured here on an area of 49,260 m².

The most important manufacturing processes are punching, bending, edging, drawing (stretching), expanding, welding, pressure sealing, enamelling, surface treatment, assembly and testing.

The main raw materials used are steel, galvanised steel, stainless steel and enamel.

Areas of particular environmental significance:

- Surface treatment installations
- Heating installations
- Central effluent treatment plant for technical effluent from the surface pre-treatment and final treatment areas
- Dangerous goods store
- Compressed air compressors

**Warendorf factory**

The Warendorf site consisting of the furniture and plastics factories is in a relatively rural location in an industrial area to the east of the town. The factories are served by the B475 and B64 main roads.

About 500 employees work at the site and 355 of these are involved in production. High quality kitchen furniture is developed and manufactured on an area of 329,029 m². In addition to this, thermoplastic injection-moulded parts are produced on this site for all Miele machines. The most important manufacturing processes are:

Furniture factory:

Sawing, milling, drilling, coating, lacquering and gluing

Plastics factory:

Injection moulding, ultrasound welding, butt-welding with heat reflectors, semi-finished product fabrication

Spare parts logistics:

Storing spare parts

The main raw materials used at this site are wood materials, lacquers and coating materials in the furniture factory, and thermoplastic granulates (primarily ABS and PP) in the plastics factory.

Areas of particular environmental significance:

- Surface treatment installations
- Heating installations
- Effluent treatment plant for technical effluent from the surface pre-treatment area as well as for effluent from the filling station areas
- Dangerous goods store
- Filling station for company vehicles

**Lehrte factory**

The Lehrte factory is located in an industrial area to the east of Lehrte and is next to a link road to the A2 motorway.

Miele Lehrte employs about 480 people. Commercial washer-extractors, tumble dryers and rotary ironers, and domestic rotary ironers as well as wiring harnesses for other Miele factories are developed and manufactured here on an area of 163,371 m².

The main raw materials used here are steel, galvanised steel, stainless steel, powder coating powder and technical textiles.

The most important manufacturing processes are punching, bending, forming, milling, drilling, passivation, welding, powder coating, assembly, testing and the production of wiring harnesses.

Areas of particular environmental significance:

- Heating installations
- Central effluent treatment plant for technical effluent from the surface pre-treatment and final treatment areas
- Dangerous goods store
- Oil store



Euskirchen factory

Miele Euskirchen is located in an industrial area to the south-east of the town. Road links are provided by the B51 main road, an arterial road to the A61 Koblenz - Mönchen-Gladbach motorway and another link road to the A1 Cologne–Trier motorway.

Miele Euskirchen employs 457 people of whom about 352 work in production. Electric motors for domestic and commercial Miele machines, and vacuum cleaner motors are developed and produced here on an area of 126,048 m².

The main raw materials used on this site are copper, steel (magnetic sheet steel), shaft steel, aluminium (cast sheets) and plastics.

The most important manufacturing processes are punching, turning, grinding, die-casting, production of copper windings, assembly and testing.

Areas of particular environmental significance:

- Heating installations
- Afterburning installation for cleaning the exhaust from resin-processing machines
- Dangerous goods store

**Bürmoos factory (Austria)**

Miele's factory in Austria is in the Flachgau area about 25 km north of Salzburg in the Zehmemoos suburb of Bürmoos. The factory is in a designated industrial area and is linked to the L115 main road.

Miele Bürmoos employs 231 people of whom 180 work in production. The factory specialises in working with stainless steel to produce medical products, chemical systems and food industry items on an area of 33,167 m². Wire baskets as inserts for clinical and laboratory cleaner-disinfectors, domestic spin dryers, and accessories and components for commercial dishwashers (drying units, stainless steel casings, frames, plinths, holders, etc.) are manufactured here.

The main raw materials used at this location are steel, galvanised steel, stainless steel and aluminium.

The most important manufacturing processes are turning, milling, grinding, punching, bending, embossing, welding, surface treatment and writing and marking using laser technology.

Areas of particular environmental significance:

- Effluent treatment plant for technical effluent from the surface pre-treatment and final treatment areas
- Surface treatment installations
- Compressed air compressors
- Dangerous goods store
- Oil store



Bünde factory

The Bünde factory is located in the suburb of Bünde-Ennigloh in the immediate vicinity of Bünde station and near the A30 motorway Bünde-Ennigloh exit.

608 people are employed at the Bünde factory 416 of whom work in production. Built-in and wall ovens, hobs, steam cookers, plate warmers and electronic controls for the products made on this site are developed and produced here on an area of 82,569 m².

The most important manufacturing processes for machine production are punching, drilling, milling, edging, bending, forming, welding, powder coating, assembly and testing. The following apply to electronic control production: Component placing on PCBs, wave soldering and testing.

The main raw materials used here are steel, galvanised steel, stainless steel, aluminium, enamel and powder for powder coating.

Areas of particular environmental significance:

- Surface treatment installations
- Heating installations
- Wells supplying water for production processes
- Dangerous goods store
- Central oil store
- Filling station for company vehicles
- Coalescence separator for vehicle wash
- Grease separator



Arnsberg factory

The Arnsberg factory is in a designated industrial area of the suburb Neheim-Hüsten in the immediate vicinity of the A46/A445 motorways.

246 people are employed at the Arnsberg factory of whom 193 work in production. Cooker hoods and related accessories are manufactured here on an area of 43,510 m².

The main raw materials used on this site are steel, stainless steel, powder coating powder and thermoplastic plastic granulates (ABS, PP, PA, PC).

The most important manufacturing processes are punching, edging, bending, grinding, nibbling, laser cutting, welding, powder coating, plastic injection moulding, assembly and testing.

Areas of particular environmental significance:

- Heating installations
- Powder coating installation
- Plastic injection moulding installation
- Operating stocks store

Procurement

The market success of Miele products is closely tied to their quality and is indisputably related to the company philosophy to satisfy the high quality demands of its customers. Within the framework of overall purchasing strategy and in accordance with the motto “forever better”, Miele always selects suppliers who have a similar quality philosophy to their own. The aim is to establish long term relationships with service-oriented and reliable partners. A basic requirement for this is an established quality system in accordance with DIN ISO 9000 ff. and compliance with the international environmental standard DIN EN ISO 14001 or an equivalent environmental management system. In addition reliable compliance with deadlines and flexible fulfilling of contracts as well as a readiness to offer assistance and seek innovative solutions to technical problems are also important factors in supplier selection. Furthermore, particular attention is given to ensure that social aspects, such as, for example, the forbidding of forced labour, child labour or discrimination, are documented and complied with.

Environmental protection starts with the selection of materials

High-quality materials unadulterated with critical substances make subsequent recycling worth-

while. For this reason, materials at Miele not only come under close scrutiny in terms of their quality, they are also subjected to stringent ecological controls. Precisely documented procedural guidelines and extensive tests by our own specialist departments such as health and safety at work, environmental protection and the factory fire service prevent critical substances or materials from finding their way into our production processes. This is also achieved by urging suppliers to replace critical materials that may be used in pre- or final production or in their own manufacturing processes by environmentally friendly substitutes wherever possible.

As far back as 1984, Miele banned the use of cadmium, a heavy metal, as a stabiliser or colouring agent in plastics. Since 1999 this has also applied to lead and its compounds in plastics.

Polybrominated diphenyl ether (PBDE), used as a flame retardant and considered carcinogenic when burned, has not been used at Miele since 1988. Polychlorinated biphenyls (PCB), substances contained in capacitors and outlawed in 1987 on the grounds of their carcinogenic and poor degradation properties, were never utilised at Miele. This also applies to mercury. Because of Miele's consistent avoidance strategy regarding critical materials, Miele products already comply with the requirements of the European

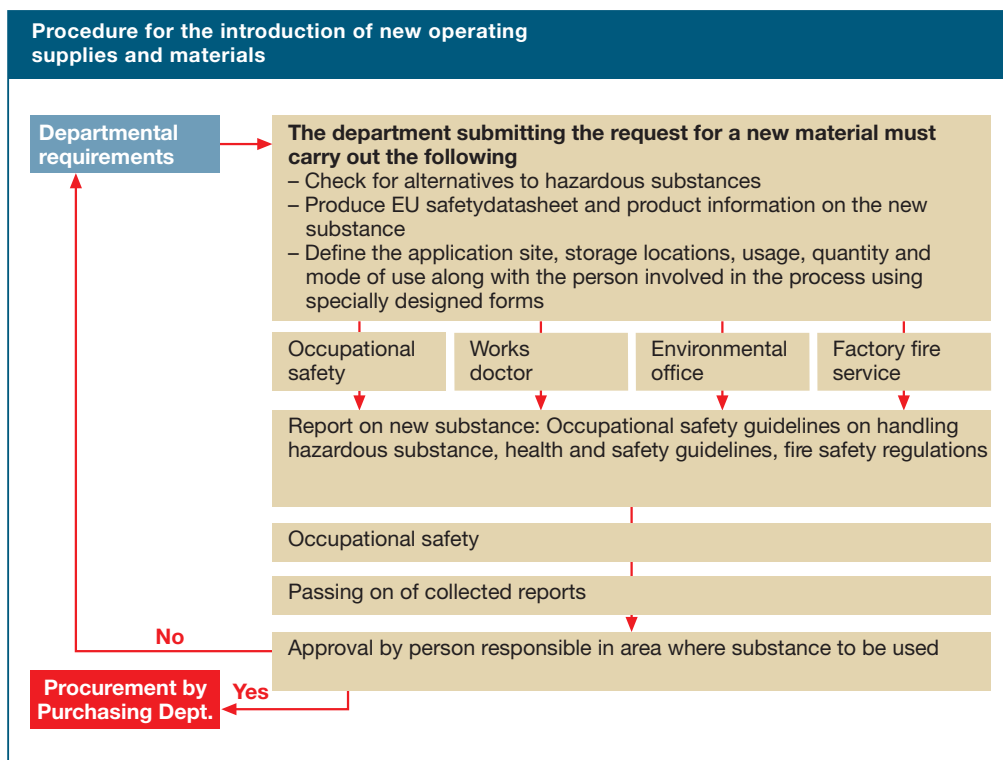
Union directive to avoid the use of critical materials in electrical and electronic products coming into force from July 1, 2006, and have in fact done so for many years already. With regard to remaining targets, such as the avoidance of chromium VI or lead in solders, Miele will inform its suppliers and oblige them, already from July

1, 2005, to supply only products that comply with the requirements of the EU directive "Restriction of the use of certain Hazardous Substances (RoHS)".

High quality plastics

Plastics are important engineering materials. For many applications they are superior to any other material. They are particularly resistant to moisture and to the effects of additives such as those in detergents and are very easy to clean. As long as plastics will be manually sorted in the future for recycling, it is important that they are clearly identified. To this end, Miele started marking plastics as far back as 1988 in accordance with the internationally valid standards DIN ISO 11469, 1043 and 1629.

This marking system includes information regarding the flame retardant method used in the plastic. Today, the percentage of recycled plastics by weight in new products is still low. This is because there is still neither a guaranteed, regular supply nor a sufficient quantity of standardised recycled plastic for continuous, large-scale industrial production.



The procedure for the introduction of new operating supplies and materials shows clearly that Miele places great store by the use of environmentally friendly materials.

Best-available technologies

Right from the planning stage of production systems and processes Miele applies the strategy of avoidance, reduction and recycling. Important requirements for this are on the one hand the use of best-available technologies and on the other the evaluation of environmental performance via the monitoring of environmental data.

In order to verify its environmental performance, Miele uses absolute environmental data in accordance with DIN EN ISO 14031. This is because absolute environmental figures are the most informative. They are the best way to show Miele's high vertical integration figure of almost 50% related to the added value and the high product lifetime target of at least 20 years.

At Miele absolute environmental figures are not merely limited to process-specific data. Thanks to a comprehensive knowledge of data origin, monitoring framework, production processes, extent of vertical integration and product life targets, and against the background of a time-scale, absolute environmental figures are the best indicator to recognise negative tendencies so that appropriate counter measures can be taken.

The notes concerning the absolute environmental figures in this section explain the reasons for changes that may have occurred. In conjunction with monitoring of the environmental targets and programmes, and the annual status reports, these figures provide the basis for setting new targets.

Raw materials

Raw materials are required by the various Miele factories to manufacture products.

The most important aims when procuring raw materials are to ensure the highest quality standards, the avoidance of critical substances, and easy economic and ecological delivery.

Due to developments in process technology it has been possible for Miele to reduce the quantity of raw materials used. Although there

has been a reduction in production of 5.2%, there have been even greater reductions in raw material consumption. This is due to the disproportional reduction in production of machines using greater quantities of raw materials.

Aim for the future: Further reduction in raw materials consumption without affecting the proverbial longevity of Miele products.

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Raw materials	[t]	[t]	[t]	[t]	
Outsourced parts					
Metals	91,729	80,225	91,251	81,112	-11.1
Plastics	7,629	7,700	8,576	8,404	-2.0
Wood materials	1,830	1,785	1,662	1,487	-10.5
Total*	101,188	89,710	101,489	91,003	-10.3

*Figures rounded off

Auxiliary substances

Auxiliary substances and additives must fulfil particularly exacting requirements at Miele as they remain in or on the product and must therefore be environmentally friendly throughout the entire product life.

The now traditional internal and external enamelling of domestic washing machine, washer-dryer and tumble dryer casings as well as oven cavities should be emphasised. The electrophoretic dip enamelling process developed by Miele and now patented worldwide has been used in series production since 1998. Compared to previous enamelling processes, very uniform, and hence much more durable, enamel coatings are achieved with this new method. The enamel, made from mineral raw materials, similar to glass, is applied without the addition of solvents, thus protecting the environment. Also the powder coating of dishwashers and commercial machines does not require the use of any solvents. There

have been great reductions not only in paints, lacquers and auxiliary substances in all factories but also in enamel. The consumption of enamel has fallen disproportionately because of the increases in efficiency of the enamelling process achieved at the Gütersloh factory. Similarly the consumption of solders and soldering additives has fallen disproportionately and this was due to the introduction of a selective soldering system in the Electronics factory at the end of 2002. The consumption of powder coating powder has increased because the capacity of the powder coating installation at the Gütersloh factory was increased during 2003. All other changes are proportional to the general reduction in production quantities.

Aim for the future: Additional reductions in the consumption of additives by further development of process technologies.

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Auxiliary substances	[t]	[t]	[t]	[t]	
Paints, lacquers, additives	213	195	198	186	-6.4
Powder coating powder	109	113	111	122	10.1
Enamel	2,407	2,022	1,450	819	-43.6
Solder, soldering additives	13	12	13	11	-15.1
Welding wire	0.303	0.318	1.179	1.118	-5.2
Foundry additives	175	231	230	191	-16.8
Total*	2,918	2,574	2,003	1,329	-33.6

*Figures rounded off

Operating supplies

Operating supplies are needed in production processes.

Oil consumption increased due to the commissioning of new presses that had to be initially filled with oil in 2003. Other reductions in operating supplies are proportional to the general reduction in production quantities.

There have been further reductions in consumption of oils, greases and lubricants as a result of the following main measures:

- Increase in the period of use of emulsions and cooling lubricants by undertaking appropriate care programmes

- Removal of metal swarf from cooling lubricants, via, e.g., a centrifuge
- Increase in hydraulic oils change intervals via regular quality analyses
- Increasing avoidance of greasing panels by the introduction of new forming processes

Aim for the future: Additional reduction in consumption of operating supplies by further intensifying quality analyses of hydraulic oils and the care programmes for emulsions and cooling lubricants.

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Operating supplies	[t]	[t]	[t]	[t]	
Acids, alkalines	894	881	844	738	-12.6
Solvents	8.8	8.4	5.7	5.0	-12.4
Oils, greases, lubricants	165	156	155	177	14.5
Foundry supplies	2,542	2,730	2,693	2,812	4.4
Technical gases	876	1,030	1,123	1,105	-1.6
Other chemicals	432	446	452	376	-16.7
Total*	4,918	5,251	5,272	5,213	-1.1

*Figures rounded off

Energy

Heating oil consumption has been further reduced by 18.7%, but the consumption figure for district heating from energy efficient and environmentally friendly unit-type heating power stations has increased. An even greater reduction in heating oil consumption was prevented by the requirement to provide heat via mobile burners while building work was being undertaken at the Bielefeld and Gütersloh factories. The drop in consumption of wood chips at the Warendorf

factory is due to a reduction in the processing of solid wood and a general reduction in production quantities here.

Aim for the future: Further continuation of the energy concept with the aim of using as much district heating as possible and converting the remaining oil-fired boilers to natural gas. In particular this will lead to clear reductions in sulphur and carbon dioxide emissions.

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Energy	[MWh]	[MWh]	[MWh]	[MWh]	
Electrical energy	125,543	127,423	127,836	123,091	-3.7
Light heating oil	3,749	1,583	1,167	948	-18.7
Natural gas	112,048	117,892	105,009	99,313	-5.4
District heating	27,311	33,197	31,130	36,253	16.5
Wood chips	7,887	5,989	7,350	6,090	-17.1
Total*	276,538	286,084	272,492	265,695	-2.4

* Figures rounded off

Energy

In line with programmes to reduce overall energy use, the following measures are used at Miele to reduce electricity consumption:

- Energy-saving lighting
- Compressors for technical air with air quantity monitoring to establish stand-by capacity
- Frequency-controlled drive motors
- Heat recovery from processes and room ventilation systems
- District heating from unit-type heating power stations for room heating in Bielefeld and Gütersloh factories
- Converting oil-fired boilers to natural gas

- Use of old wood (wood chips) in a solid fuel incinerator system with heat utilisation at Warendorf factory
- Optimal building insulation
- Heat-retaining glazing

Aim for the future: Further energy consumption reduction to be achieved by applying energy savings programmes.

Water

The reduction in water consumption, apart from that related to the drop in production, is due to improved processing in the pre-treatment baths in the surface treatment area of the Gütersloh factory.

Aim for the future: Identifying further savings potential not only in manufacturing installations and processes but also in non-production-related areas.

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Water	[m ³]	[m ³]	[m ³]	[m ³]	
Mains supply	103,706	131,975	134,738	130,306	-3.3
On-site wells	244,298	230,733	205,412	182,398	-11.2
Total*	348,004	362,708	340,150	312,704	-8.1

* Figures rounded off

Waste

At Miele, waste management concepts and balance sheets are important methods for the realisation of waste management targets.

The quantity of waste for disposal has fallen greatly because less building rubble required disposal in 2003 than in 2002. An important contribution to the reduction of waste for disposal and recycling is the introduction of reduction measures such as recycling of operating supplies

and the avoidance of waste in production processes at all Miele factories. The drop in production quantities has also contributed to waste reduction.

Aim for the future: In addition to the general avoidance of waste, efforts will be made to further decrease the quantity of waste for disposal while increasing the proportion for recycling.

OUTPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Waste	[t]	[t]	[t]	[t]	
Waste for disposal	2,295	1,970	2,255	1,652	-26.7
of which domestic-type commercial waste	964	802	710	628	-11.5
Waste for recycling	29,683	28,463	26,839	23,763	-11.5
of which metal waste	17,371	15,433	15,478	13,329	-13.9
Total*	31,978	30,433	29,094	25,415	-12.6

* Figures rounded off

Effluent

To reduce effluent quantities, Miele continues to apply consistent avoidance strategies such as, e.g., process-adjacent circulation control of operating materials. For example in the Gütersloh factory nickel-containing effluent is treated in selective ion exchangers and the extracted nickel is returned to the production process. Unavoidable technical effluent at the Bielefeld, Gütersloh and Oelde factories is detoxified in effluent treatment installations and then indirectly discharged to the local authority sewage system. To ensure set limits for discharged water are

clearly below permitted levels, regular pH value measurements are taken and analyses carried out.

As is the case with water, the reduction of effluent in 2003 is due on the one hand to improved processing in the pre-treatment baths in the surface treatment area of the Gütersloh factory and on the other to the reduction in production quantities.

Aim for the future: Reduction of the effluent quantity by similar measures as described at Input – Water consumption.

OUTPUT

	2000	2001	2002	2003	Change [%] Compared to previous year
Effluent	[m³]	[m³]	[m³]	[m³]	
Technical effluent	110,092	155,401	120,556	85,528	-29.1
Other effluent**	196,486	163,954	178,433	189,933	6.4
Total*	306,578	319,355	298,989	275,461	-7.9

* Figures rounded off ** Calculated figures

Emissions

Compared with 2002, sulphur dioxide (SO₂) emissions were further reduced in 2003. This is due to reduced consumption of heating oil. The reduction of all emissions by 6.6% is in line with the reduction in production quantities. To reduce production emissions, Miele continues to apply the most modern technical solutions in the areas of system and filter technology. The following, among others, have contributed to this:

- The most-modern afterburner technology with heat recovery for resin processing at the Euskirchen factory and the lacquering processes at the Warendorf site.
- Electric smelters in the foundry at the Gütersloh factory.
- Filter monitors on all filter installations in the foundry at the Gütersloh factory ensure that emissions are kept well within limits.
- Noise-insulating encapsulation of installa-

tions particularly prone to produce noise and vibration such as presses with a pressure of up to 1,000 t and, depending on necessity, their mounting on vibration-absorbing foundations.

In Gütersloh Miele has voluntarily set their own emission limit for the foundry at 50% of the legally permitted level of 20 mg dust per cubic meter of exhaust. Measurements show that the real figure achieved is well below 5 mg per cubic meter.

In areas where systems particularly prone to produce noise and vibration are installed, regular workplace-related measurements of sound pressure levels are taken. The results are recorded in noise registers and provide the basis for further improvement measures.

Aim for the future: Reduction of site-related emissions within the framework of energy concept optimisation.

OUTPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Emissions					
Production emissions**	[t]	[t]	[t]	[t]	
Dust emissions	0.56	0.56	0.57	0.57	
Vapour/gas emissions					
SO ₂	1.63	0.91	0.81	0.69	-15.1
NO _x	31.78	31.13	29.16	26.90	-7.7
CO ₂	25,745	25,827	23,491	21,940	-6.6
Total**	25,778	25,859	23,521	21,968	-6.6

* Figures rounded off ** Calculated figures

Absolute environmental figures for the Miele group

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Raw materials	[t]	[t]	[t]	[t]	
Outsourced parts					
Metals	91,729	80,225	91,251	81,112	-11.1
Plastics	7,629	7,700	8,576	8,404	-2.0
Wood materials	1,830	1,785	1,662	1,487	-10.5
Total*	101,188	89,710	101,489	91,003	-10.3
Auxiliary substances	[t]	[t]	[t]	[t]	
Paints, lacquers, additives	213	195	198	186	-6.4
Powder coating powder	109	113	111	122	10.1
Enamel	2,407	2,022	1,450	819	-43.6
Solder, soldering additives	13	12	13	11	-15.1
Welding wire	0,303	0,318	1,179	1,118	-5.2
Foundry additives	175	231	230	191	-16.8
Total*	2,918	2,574	2,003	1,329	-33.6
Operating supplies	[t]	[t]	[t]	[t]	
Acids, alkalines	894	881	844	738	-12.6
Solvents	8.8	8.4	5.7	5.0	-12.4
Oils, greases, lubricants	165	156	155	177	14.5
Foundry supplies	2,542	2,730	2,693	2,812	4.4
Technical gases	876	1,030	1,123	1,105	-1.6
Other chemicals	432	446	452	376	-16.7
Total*	4,918	5,251	5,272	5,213	-1.1

* Figures rounded off

Absolute environmental figures for the Miele group

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Energy	[MWh]	[MWh]	[MWh]	[MWh]	
Electrical energy	125,543	127,423	127,836	123,091	-3.7
Light heating oil	3,749	1,583	1,167	948	-18.7
Natural gas	112,048	117,892	105,009	99,313	-5.4
District heating	27,311	33,197	31,130	36,253	16.5
Wood chips	7,887	5,989	7,350	6,090	-17.1
Total*	276,538	286,084	272,492	265,695	-2.4
Water	[m³]	[m³]	[m³]	[m³]	
Mains supply	103,706	131,975	134,738	130,306	-3.3
On-site wells	244,298	230,733	205,412	182,398	-11.2
Total*	348,004	362,708	340,150	312,704	-8.1

* Figures rounded off

Absolute environmental figures for the Miele group

INPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Surface area	[m ²]	[m ²]	[m ²]	[m ²]	
Developed area	451,876	454,860	489,093	503,567	3.0
Undeveloped area	882,792	885,375	885,153	865,721	-2.2
of which grass and gardens	408,630	402,088	397,712	438,586	10.3
of which paved and metalled	428,137	429,919	433,211	426,774	-1.5
Total*	1,334,668	1,340,235	1,374,246	1,369,287	-0.4

* Figures rounded off

Installations requiring approval	[No.]	[No.]	[No.]	[No.]
Of which in accordance with immission laws	9	9	11	10
Of which in accordance with water laws	10	10	10	10
Total	19	19	21	20

Absolute environmental figures for the Miele group

OUTPUT	2000	2001	2002	2003	Change [%] Compared to previous year
Products	[1000s]	[1000s]	[1000s]	[1000s]	
Total units produced	3,504	3,279	3,338	3,163	-5.2
Parts and components for other Miele factories and Service Dept					
Packaging	[t]	[t]	[t]	[t]	
	13,562	13,380	13,070	11,636	-11.0
Waste	[t]	[t]	[t]	[t]	
Waste for disposal	2,295	1,970	2,255	1,652	-26.7
of which domestic-type commercial waste	964	802	710	628	-11.5
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LOGISTICS

Efficient transport

Each Miele sales centre and the majority of foreign subsidiaries are supplied with ordered machines and spare parts on a daily basis. All Miele domestic appliances and spare parts start their journey at Gütersloh with processing of washing machines, dryers, ovens and dishwashers, among others, being handled by the modern goods distribution centre. The hub of this system is the central distribution warehouse, a fully automatic high-bay warehouse, with a capacity of over 108,000 units. The turnover rate is high, on average a unit is only stored here for 7 working days. Up to 12,000 units per day are despatched all over the world, a large proportion travelling by rail. The central distribution warehouse is complemented by the new staging warehouse first taken into service in 2000. This has an area of approximately 9,000 m² and is primarily used to store and prepare for despatch small appliances such as hobs, microwave ovens, control units and accessories, and also cooker hoods.

Refrigeration appliances are now also stored at Gütersloh and no longer at Warendorf, which has led to further savings of several thousand lorry-miles.

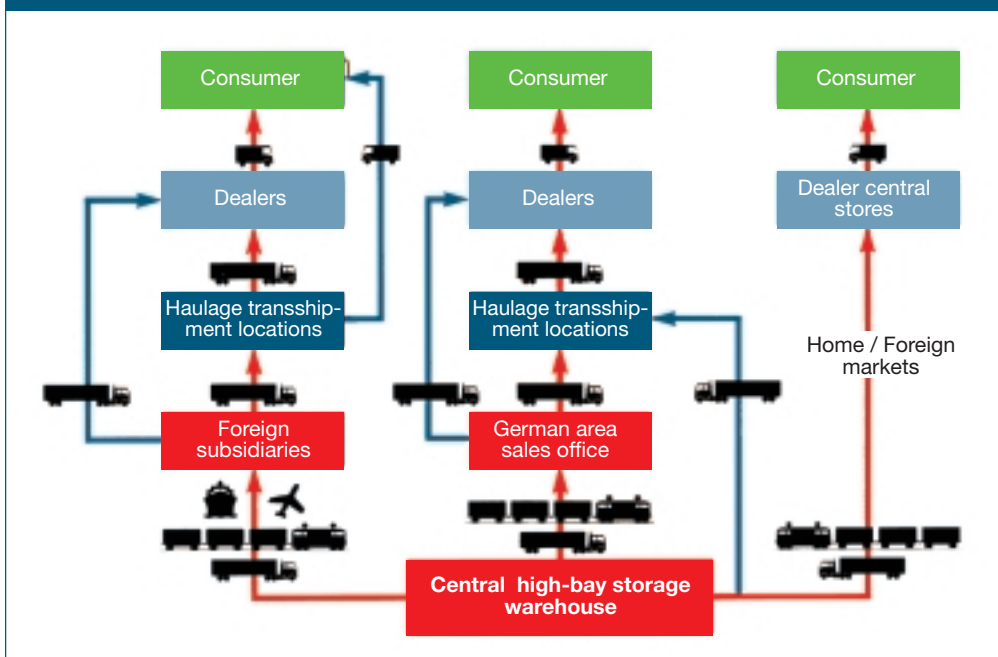
By despatching domestic appliances and spare parts centrally from Gütersloh a large number of separate journeys for spares is avoided. Instead of sending individual parcels, generally spare parts and domestic appliances are sent together with the same transport.

In contrast to domestic appliances, kitchens for the German home market are despatched directly from the Warendorf factory, and laundry installation, and special commercial dishwashers and washer-disinfectors are sent direct to the customer by lorry from the Lehrte factory. This is the best solution especially for the generally very large and heavy commercial machines.

It is also then possible on delivery to remove the old installation and ensure that is disposed of and recycled in an environmentally friendly way.

Efficient transport

Shipment of domestic appliances



Serving national and international markets with Miele products requires considerable transportation. At Miele the aim is to ensure that this transportation has the least possible adverse impact on the environment. The prime objective is to identify and deal with ineffective transport methods and to transfer goods from road to rail.

The central distribution warehouse on the Gütersloh site, which entered service in 1994, contributes to this in two ways: It receives incoming products from the various Miele manufacturing plants and sorts them depending on where they are to be despatched to, and uses computer technology to optimise the use of various onward transportation methods. This approach saves several thousand haulage miles each and every day.

Railways play a significant role in forwarding Miele domestic appliances

Miele makes considerable use of rail transport. As the Miele central distribution warehouse has its own railway platform, a proportion of Miele appliances are shipped by rail. The hauling capacity (tkm) in 2003 was around 27% in Germany.

Efficient transport

Due to the policy followed by the German rail company DB Cargo (project MORA C) of closing unprofitable freight services and restructuring of the Miele logistic system in Germany, the use of rail transport has reduced in recent years.

Miele also ships finished products to customers in other European countries by rail. For example in France in 2000 a new storage warehouse was brought into operation at the Miele subsidiary. Rail transport was seen as being a valuable transport method here so it was provided with its own link to the railway network.

Despite the preferential treatment given to rail transport, road haulage cannot be avoided completely, especially for final distribution. For delivery of domestic appliances to dealers and end users, road transport is the only possible solution.

Further, transport between production plants involves special tasks for which road vehicles are the only sensible solution. To minimise impact on the environment, all factory filling stations have been converted to supply sulphur-free diesel. By organising vehicles to promote back-loading, mileage with empty vehicles is minimised by picking up production supplies and semi-finished assemblies on the way back. As a result of this, an exceptional figure of 83% of full capacity utilisation is achieved by Miele.

To cut down on the number of journeys, wherever possible Miele uses particularly large lorries with a capacity of up to 198 domestic appliances.

Classification of vehicles by their toxic emissions

Since 2002 Miele has prepared reports about its vehicle fleet with regard to its impact on the environment in relation to the toxic emissions classification used in Europe.

Cars

There has been a clear increase in the number of vehicles with toxic emissions classifications Euro 3 and 4 at the expense of those with classifications Euro 1 and 2. With cars, Miele sets great emphasis on the use of vehicles with low-consumption diesel motors. This means that the increase in use of cars with classification Euro 4 depends on how quickly diesel vehicle manufacturers offer appropriate technology for exhaust cleaning.

Light commercial vehicles

With light commercial vehicles there has also been a clear increase in the number with toxic emissions classification Euro 3 at the expense of those with classifications Euro 1 and 2. Entry into the toxic classification Euro 4 area with this vehicle group depends on the availability of such vehicles with appropriate technology for exhaust cleaning.

Heavy goods vehicles

For transporting products Miele relies on either the rail network or road haulage using a pairing system to ensure vehicles are back-loaded to achieve optimal lorry utilisation and hence an environmentally compatible transport scheme.

Efficient transport within production plants would be impossible without Miele's own fleet of vehicles. The vehicles in this fleet are, compared with long-distance transport, utilised to a much greater extent and cannot be classified in accordance with current classification criteria.

Examples of the plant included within this group are fire service vehicles, fork-lift trucks with internal combustion engines and transit vehicles.

There has been a considerable increase in the number of vehicles with the classification Euro 3. It will only be possible to reach the classification Euro 4 when vehicles with the appropriate technology for exhaust cleaning are available.

Aim for the future: To increase the proportion of vehicles with classification Euro 3. With regard to new vehicle purchases, Miele will, depending on economic realities, tend towards a preference for classification Euro 4.

Vehicle classifications		2002 Proportion %	2003 Proportion %	Change [%] compared to previous year
Cars	EURO 1	2.1%	1.2%	-44.9%
	EURO 2	22.5%	12.8%	-43.0%
	EURO 3	65.5%	74.9%	14.3%
	EURO 4	9.8%	11.1%	12.9%
Total, cars		100.0%	100.0%	
Light commercial vehicles	EURO 0	2.4%	1.6%	-33.0%
	EURO 1	43.8%	29.4%	-32.8%
	EURO 2	17.2%	16.2%	-5.9%
	EURO 3	36.6%	52.8%	44.1%
Total, light commercial vehicles		100.0%	100.0%	
Heavygoods vehicles	Unclassified special vehicles	38.9%	34.4%	-11.6%
	Euro 1 und 2	55.6%	54.7%	-1.6%
	Euro 3	5.6%	10.9%	96.9%
Total, heavy goods vehicles		100.0%	100.0%	
Total, all vehicles		100.0%	100.0%	

S O C I A L R E S P O N S I B I L I T Y

The Miele family

“What makes Miele strong is the awareness for quality, innovation and a humane understanding for all employees.” This quote is not from Senior Management but rather from the Head of the Works Council. It makes clear that the commitment of employees to their jobs in the company is appreciated.

Committed employees ensure the high quality of Miele appliances and first class service throughout the world as Miele customers must always be more than satisfied. 15,122 people worldwide work for, and identify with, the company. Every one of them bears the responsibility for the application of the company motto of

“Forever better”. Many of them make a contribution to the oft-mentioned “Miele family” in the most literal way. Frequently the second, third or even fourth generation of a family all work for Miele or follow each others footsteps into the company. The fluctuation rate is very low. Even today many employees stay with company from apprenticeship training until retirement, and this is confirmed by figures: In more than 100 years of company history there have been over 8,700 employees who have celebrated at least 25 years of employment with Miele, in many cases these people were able to look back over 40 or 50 years with the Miele brand.



The individual in the company

Miele places numerous orders with homes for disabled people and similar institutions. Many sub-assemblies for final production are assembled by people with disabilities. In nearby disabled persons' workshops at Freckenhorst for example light assembly and packaging work is carried out. Patients at the Bethel hospitals in Bielefeld are responsible for carrying out other suitable tasks such as pre-assembly of mounting brackets. In Gütersloh the Dalke gGmbH* institution provides occupational therapy for patients with psychological difficulties. They prepare sub-assemblies for tumble dryers such as hinges, drum ribs and condenser boxes. In this way, taking into account the costs for provision of disabled persons' workshops, the quota of employment of severely disabled persons of 6% required in Germany for large companies is exceeded.

The biannual award ceremonies for employees celebrating long service jubilees with the company show the multi-nationality of Miele. Employees from foreign subsidiaries are brought to Gütersloh to celebrate their jubilees together with their German colleagues. During their factory tour it is quite obvious to the visitors that foreign workers employed here are fully integrated. It is a tradition that the colleagues of those commemorating a jubilee with the company decorate their workplace to celebrate the occasion. These decorations are often very elaborate

and full of fantasy, frequently referring to the hobbies or interests of the person in question. Often there are many Greek or Turkish employees celebrating a jubilee with the company of 25 or even 40 years. Sometimes their adult children also belong to the Miele workforce. According to the Personnel Department: "There has never been a racist background for any friction or disagreements between employees". At the Gütersloh factory Moslems are provided with a quiet area where they can go to pray. The proportion of foreign workers in the Gütersloh and Bielefeld factories is 7.1% and 9.8% respectively. In the sales centres it is about 1.8% on average.

Social contributions and grants

Whether for a long-service jubilee or a silver wedding: Miele grants its employees awards. This is in recognition of the fact that the company takes an interest in the personal life of each and every person in the firm. The grants include contributions to the costs of spa treatments, dentures and dental work. Apart from this awards are also given to mark occasions such as births, marriages and deaths, "special" birthdays and long-service jubilees.

In addition to these awards, the company offers further social support in excess of any tariff agreements such as canteen subsidies, travelling money, protective clothing and special savings scheme contributions. The so-called "Job ticket"



The individual in the company

is a special ticket for local public transport that is offered by Miele at a subsidised price. 1,147 employees in Gütersloh and Bielefeld have taken advantage of this ticket.

* gGmbH = Community company with limited liability

Pension funds

The company pension scheme also goes the extra mile. The Miele pension was first introduced in 1929 by the company founders Carl Miele and Reinhard Zinkann. Long before the provision of a proper state pension for all it was an important support for company employees. Today the company has a building-block pension scheme with which an employee's pension is based on his total income at Miele. This system provides a contribution to ensure the well-being of employees after they retire.

Independent of pension provisions, the company also supports senior citizens in other ways by, for example, direct insurance or incapacity insurance schemes offered to Miele employees at advantageous rates by a major insurance company.

Work-time models

About 3% of the workforce participate in a special scheme for taking early retirement. There are many different part-time models available for all

employees. In addition to simple working day reductions there are schemes with full-day working. For example there are employees who only work two or three days a week and part-time models are also available for the night shift. In the administration departments Miele offers combinations of part-time work and flexitime which are mostly used by women with young children. It is usually these employees who are becoming more interested in part-time posts and several pilot schemes are currently being tried out. The possibilities for new working time rules are still being explored and to what extent these can be offered has not yet been decided.

Proportion of women employees

There are many technical trades at Miele, but it remains difficult to recruit women for them even though special efforts are made to increase awareness of the opportunities via, for example, a special "Girls' day". In total the proportion of women in the Miele company is about 24%. At the administration headquarters at Gütersloh and in sales centres women are actually in the majority but regrettably they are very seldom in senior positions. In the white collar areas the classic role divisions are dominant, i.e. many women leave work when they start a family in order to care for the children. The opportunity to take long-term parental leave is currently taken advantage of by 205 women and one man.



The vacuum cleaner shop is managed by trainees

The individual in the company

Training

Miele offers its apprentices and trainees wide-ranging systematic training. There are 16 technical trades at Miele and a further 6 commercial training courses. Both these areas are complemented by optional sandwich courses which offer a university and trade qualification. During the period covered by this report, over 500 young people were being trained by Miele.

In addition to the extensive training opportunities offered by Miele, the company is also involved in wide ranging activities, such as close partnerships with schools, to assist young people in deciding on a career.

Technical training trades at Miele

- Energy electronics,
Systems technology
- Energy electronics,
Operating technology
- IT specialist,
Application development
- Foundry mechanic,
Machine casting

- Wood mechanic,
Furniture and casing industries
- Industrial mechanic,
Operating technology
- Industrial mechanic,
Machine and system technology
- Mechatronic engineering
- Model maker,
Display models
- Technical drawing,
Machine and system technology
- Process mechanic,
Plastic and rubber technology
- Process mechanic,
Coating technology
- Tool mechanic,
Moulding technology
- Tool mechanic,
Punch and forming technology
- Cutting mechanic,
Lathe technology
- Cutting mechanic,
Grinding technology

The individual in the company

Commercial training trades at Miele

- Industrial business studies
- IT specialist
- Social insurance specialist
- Advertising specialist
- Display advertising specialist
- Wholesale specialist

Sandwich courses

Sandwich courses combine practical training in Miele factories with theoretical study at special colleges. Periods of practical training and study alternate every 3 months.

- Graduate engineer – Mechanical engineering
Combination course with training as industrial mechanical engineer specialising in machine and system technology. Technical college in Osnabrück or Hanover
- Graduate engineer – Electrical engineering
Combination course with training as energy electronic engineer specialising in system technology.
Technical college in Oldenburg

- Graduate engineer – Wood technology
Combination course with training as wood technologist specialising in furniture and casing industries. Professional academy in Melle
- Graduate business economist
Combination course at professional academy in Stuttgart
- Graduate in business studies
Combination course with training in industrial business studies.
Business school in Paderborn
- Graduate IT economics specialist
Combination course after initial training
Business school in Paderborn
- Graduate business engineer
Combination course with training in industrial business studies.
Business school in Vechta/Diepholz

The individual in the company

Further training

“Lust an Leistung” which roughly translates as “avid for achievement” was a recent motto used for Miele's regular programme of vocational and personal interest training courses. The history and development of the company would have been unthinkable without this “avidness for achievement”.

In Gütersloh alone each year Miele finances up to 100 courses and events which every employee can attend in their free time at no charge. Courses range from specialist subjects such as electro-technology/electronics, control technology or “The networked house” to physical fitness, computer subjects, languages and personal development.

Medical support

Miele Gütersloh, which with its 4,812 employees is the largest company factory, has had its own works' doctor service since 1973. At the medical centre an occupational doctor, three nurses and three doctor's assistants carry out the legally required work-related medical checkups for all employees. Obviously this medical service is also available to deal with factory accidents, emergencies and sudden illnesses. In addition the opinion of the works' doctor is sought regarding questions of work-place ergonomics and when new work places are being designed and set up.

The Bielefeld factory also has a doctor and two nurses on site. In the other factories, contract doctors and first aiders provide the necessary medical support.

Company health insurance scheme (BKK Miele), medical support

“To protect the employee in his time of need when illness strikes” was the motivation for the establishing of BKK Miele. That was back in 1909, just ten years after the company had been founded. One of the first awards was the payment of exactly one mark for a dental operation! The scheme started then with 82 members and this number has now grown to 19,000 direct members and when their dependants are taken into account a total of 28,500 are currently insured with BKK Miele.

The employees of BKK Miele see the individual support of every member as being particularly important. In every factory and each of the 6 sales centres there is either a BKK office or a direct representative from the scheme. The avoidance of illness is also taken seriously and various preventative personal health courses are offered. These include back pain prevention,

water gymnastics and healthy eating, and are enthusiastically supported by participating employees.

The “BKK active week” is an extensive range of short holidays planned for health promotion and illness prevention. From Wangerooge in the north to Bad Tölz in the south of Germany, basic and special programmes are offered that range from healthy eating and back care to coping with stress. BKK Miele assumes responsibility for the costs of many of the associated treatments.

The company health insurance scheme is a self-administered corporation fully independent of the company. It has its own staff of 40 people, offices and computer system. All past and present Miele employees, their married partners and children can be members.

Commitment to the region

A company with such a high conception of itself as Miele cannot act remote from its regional and social field.

Back in 1974 the Miele Foundation was established in celebration of the company's 75-year jubilee. To commemorate the firm's 100th birthday in 1999 the foundation capital was increased to the equivalent of EUR 2.5 m.

In 1974 the articles of the Foundation, which was then provided with DM 1 m, stated that the capital would be maintained and the yield would be used for community projects in Gütersloh town. Since then charitable establishments have been supported and sponsored with special emphasis on upbringing and education institutes, and cultural and sporting organisations and initiatives.

So for example for the last 26 years the Foundation has financed a special school holiday activities project and for the 24th time the town's

major open cultural event "Gütersloh International". The largest single project so far for the Miele Foundation was the researching of the Gütersloh town history from its town charter award in 1825 until 2000. The Miele Foundation provided funding for personnel and material costs as well as the cost of printing and selling a book about Gütersloh town's history.

In addition the company supports local and more distant community projects with funding or equipment. A high value is placed on projects for young people or initiatives involving sport.

Miele is a founding member of the Environmental Initiative of Businesses in the Gütersloh Area and in the Environmental Foundation of Eastern Westphalian Businesses in cooperation with the Bielefeld Chamber of Commerce. The company works with scientific institutes and maintains close contacts with environmental groups.

Global commitment

A contribution to the high regard Miele is held in by its Senior Management, employees and also customers is provided by the respectful and responsible approach to not only the environment but also to mankind. The avoidance of child labour, compliance with human rights issues, and fair and reasonable working conditions are naturally matters of course for the company. To underline this view, Miele has adopted the internationally applied social guidelines in accordance with SA 8000 from the "Social Accountability International" (a grouping of companies) as part of the Management System. This means that in future a series of social criteria will be checked by an external independent consultant to ensure that they are being complied with and, above all, being actively practised in the company.

These are in detail:

- Rejection of child labour and forced labour
- Compliance with health and safety standards
- Application of right of freedom of association
- Avoidance of discrimination
- Responsible and fair approach to disciplinary matters
- Compliance with applicable rules regarding working times and fair pay

Global commitment

In addition to the SA 8000 certification, Miele supports the Global Compact Initiative from the UNO. This initiative was first presented by Kofi Annan, the United Nations General Secretary, at the World Economic Forum at Davos in 1999 and consists of a global pact (Global Compact) between the United Nations and the business community. Its aim is to strengthen the cooperation between the United Nations, business and other social groups, and to make possible the practical application of the central targets of the UNO. Kofi Annan calls on companies to adopt the central UN targets as their own and to comply with them voluntarily in their own company policies. For Miele these points simply mean no change and business as usual as they have all long been a fixed part of the company philosophy. However, the points included in the initiative can be seen as an incentive to introduce further improvements wherever possible.

1. Awareness and support of human rights within the company.
2. Exclusion of cooperation with persons/ companies that abuse human rights (e.g. suppliers).
3. Support the freedom of association and the effective recognition of the right to collective bargaining.
4. Elimination of all forms of forced and compulsory labour.
5. Abolition of child labour.
6. Elimination of discrimination in respect of employment and profession.
7. Support a precautionary approach to environmental challenges.
8. Undertake initiatives to promote a responsible approach to the environment.
9. Encourage the development and widespread use of environmentally friendly technologies.
10. Actively work against all forms of corruption, extortion and bribery.

Explanation of terms

Term	Explanation
A ABS	Acrylnitrile-butadiene-styrene
Audit programmes	Programmes for internal monitoring of the management system
B B.A.U.M.	Bundesdeutscher Arbeitskreis für Umweltbewusstes Management, a German working group to promote environmental awareness at a managerial level
Bending	Frequently used type of sheet forming
C CD ROM	Compact disk - Read only memory
CFC	Chlorofluorocarbon
CO ₂	Carbon dioxide
Coalescence separator	Particularly effective oil separator
D Drawing	Metal forming process
DSD	Duales System Deutschland AG "The Green Dot", German recycling scheme
E Elastomer	Permanently elastic polymer
Embossing	Forming process
Emulsion	Liquid with immiscible components mixed as finely as possible, e.g. oil and water
Environmental declaration	Description of activities at production plants which have an impact on the environment in accordance with EU environmental audit
EPS	Expanded polystyrene
Expanding	Forming process to expand and stretch a workpiece

Explanation of terms

Term	Explanation
F FC	Chlorofluorocarbon
Fine sorting	Separation of non-ferrous metals into types such as copper, aluminium, brass, etc.
Forming	Desired change of shape and surface of a workpiece
I Isobutane	Butane gas-based refrigerant (gaseous hydrocarbon)
K kW	kilowatt (1 kW = 1,000 watts)
L Laser cutting	Cutting a workpiece using a laser beam: The high energy density of the laser beam causes melting, evaporation or sublimation (direct change from solid to gaseous state) of the workpiece at the cutting point
M mbar	millibar, unit of pressure
Methanol	Raw material in the chemical and plastics industry
Miele phase cycle concept	Guideline covering the planning, development, manufacture, marketing, use and future disposal of new products
MW	Megawatt (1 MW = 1 million watts)
[MWh]	Megawatt-hour (1 MWh = 1,000 kilowatt-hours)
N Nibble	Cutting a workpiece to shape with a series of small cuts
NOx	Nitrogen oxide
P PA	Polyamide plastic
Passivation	Cleaning a stainless-steel surface using phosphoric or nitric acid to increase resistance to corrosion
PC	Polycarbonate plastic
PC	Optical interface marking on machine fascia for update feature

Explanation of terms

Term	Explanation
P PCB	Polychlorinated biphenyl
PE	Polyethylene plastic
Pentane	Natural gas-based foaming or blowing agent
PER	Perchlorethylene
pH value	Measurement of acidity or alkalinity of an aqueous medium
Polyethylene foil	Plastic foil
POM	Polyoxymethylene plastic
Powder coating	Application and stove finishing of powder coating on a workpiece as protection against corrosion
PP	Polypropylene plastic
Pressure sealing	Connection of sheet steel using pressure without welding
Punching	Mechanical cutting of a material via a tool with two opposing cutting edges
PUR	Polyurethane: Particularly versatile plastic
PVC	Polyvinyl chloride plastic
R Reducing agent	Carbons for chemical conversion of iron oxide ore
Reflow soldering	Soldering process for surface-mounted devices
S Selective ion exchanger	Installation with resins that e.g. enrich nickel from diluted wash water
Schredder	Shredding installation for used domestic appliances or vehicles to recycle the metal content
SO ₂	Sulphur dioxide
Standard place setting	Fixed quantity of standardised crockery and cutlery

Explanation of terms

term	Explanation
U Update	Updated programmes for e.g. dishwashers, washer-dryers, washing machines and tumble dryers
W W	watt (1 watt = 0.001 kilowatt)
Wave soldering	Soldering process for wired components

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