

Environmental statement 2005



Grundfos Manufacturing Ltd

Summary

The statement gives an overview of our performance over the last 5 years, and is an update of our 2004 statement. We have focused on five environmental objectives and targets or Key Performance Indicators (KPI) as follows: -

Focus areas	Base year	Performance 2004	Target 2005
Reduce water consumption.	Target reset 2004	23 %	74 %
Reduce energy consumption.	2000	16 %	10 %
Reduce scrap.	2000	26 %	22 %
Reduction in the number of COSHH items.	Target reset 2004	1	2
Reduce the amount of Waste generated.	2000	40 %	27%

Most of the objectives and targets are linked directly to the significant environmental aspects identified on page 4 of this statement.

A register of legislation is maintained and updated at quarterly intervals. There have been no breaches of legislation since our last statement. Other than planning consents we have no current consents or authorizations for any discharges. Grundfos Manufacturing Ltd is registered with the WESpack compliance scheme and comply with the Producer Responsibility Obligation (Packaging Waste) Regulations 1997.

Statement Validated by _____ of BSI (reg. reference UK-V-0002) on: 21/02/2005.

Next statement: March 2006.

Grundfos Manufacturing Ltd, Ferryboat Lane, Castletown,
Sunderland, SR5 3JL, Tel: 0191 5495555. Fax: 0191 5160067.

Business activities

Grundfos Manufacturing Ltd. (GBW) is part of the Grundfos group of companies, with the headquarters based in Denmark and sister production and sales companies around the world. The figures within this report, as well as others, are reported to group headquarters on a yearly basis. The figures contribute to corporate objectives and targets and are compiled into the group environmental report.

The facility is responsible for the manufacture & assembly of three main product ranges:

- Domestic Circulators - for heating and hot water systems.
- Industrial Pumps - for a broad range of industrial applications.
- Water supply & waste water pumps - ranging from bore hole pumps to sump and water utility applications and booster systems.

A Distribution Center supplies the UK and Ireland with the full Grundfos product range and is also responsible for waste disposal from the site.

Our production processes include: -

- Machining - castings and the like are bought in for processing.
- Painting - some products are painted with water based paint to extend their life
- Assembly - carried out manually or with automation.
- Testing - All products are tested.
- Refurbishment - we provide a refurbishment service to extend the life of products.
- Analysis & recycling - some products, which fail within the warranty period, are returned for analysis to find the reason for failure. The stripped parts are recycled.

Environmental aspects

The following have been classified as significant aspects. (The methodology for assessment of significance is available upon request.)

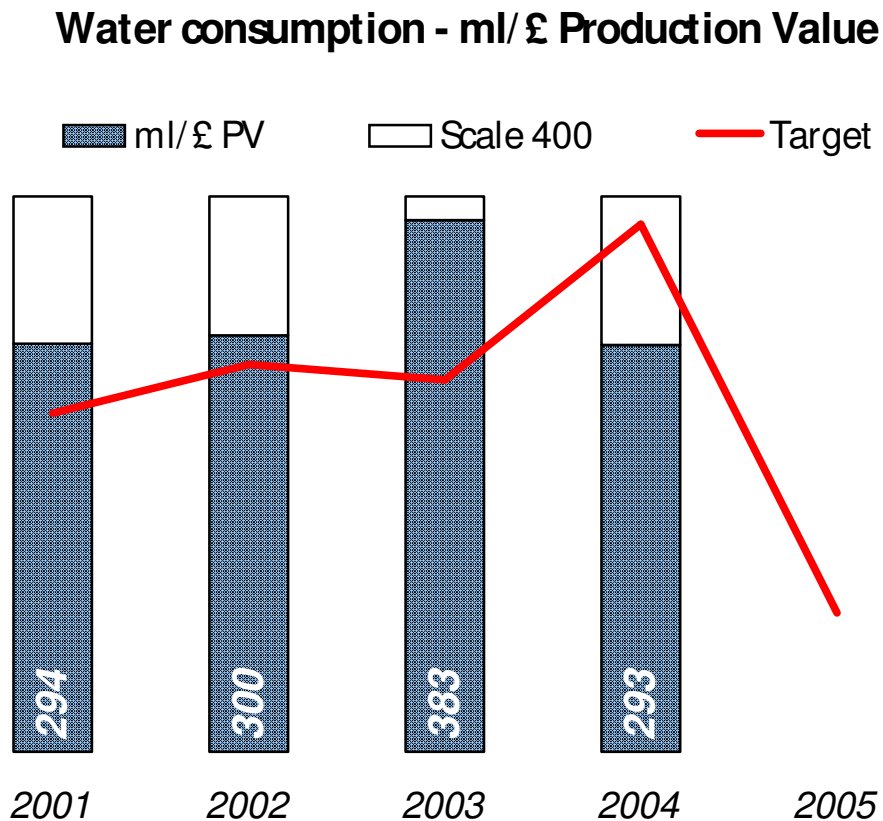
ENVIRONMENTAL ASPECT	NATURE OF ENVIRONMENTAL ASPECT - LOCAL / REGIONAL / NATIONAL / GLOBAL	SOURCES
a) PHOSPHORIC ACID DESCALING PROCESS	The current effects are negligible due to the low quantities and low frequency of the emptying process. If, however, discharges were to increase or be subject to an unauthorised release of high concentrations then this could result in local / regional effects in the form of foul water pollution. This could result in pollution of the local treatment works.	Diluted (1:15) used in the phosphoric acid de-scaling process.
b) WATER BASED PAINT / PAINT BOOTHS	Small releases of particulates / VOC's / odour / CO2. Potential global warming effect from release of CO2. Paint residue & tins are treated as notifiable waste.	Spray painting of product range.
c) BOILER ROOM	Potential global warming effect from release of CO2.	Water heating.
d) FOUL WATER DISCHARGES	Local and regional effect of sewage disposal upon the environment.	Toilets and showers.
e) NON-HAZARDOUS GENERAL WASTE	Regional visual impact of landfill sites upon local landscapes & potential problem of methane gas build up.	General site rubbish.
f) NOTIFIABLE (CONTAMINATED) WASTE	Regional / local effects associated with landfill disposal. Potential leachate and groundwater pollution risks due to content of contaminated waste.	Paint residue, carborundum sludge, paint and grease tins, used absorbent granules & filter paper, wastewater.
g) SWARF / SCRAP	Global depletion of natural resources during extraction. Indirect depletion of natural resources & additional local pollution & global warming during foundry and recycling process.	Swarf and scrap from machining processes.
h) ENERGY CONSUMPTION	The global depletion of non-renewable resources (coal, oil and gas) through the heating and lighting of the factory. Additional global warming effects of CO2 discharges.	Electricity - lighting of factory, operating machinery & equipment. Gas - gas fired heaters and water heating.

Water consumption

Water is used on site for domestic use, as well as usage in soluble oil dilution and pump testing.

During 2003 a new water meter was fitted at our site to provide more accurate readings. Increases in water readings were noted and this led to a re-assessment of the previously set targets.

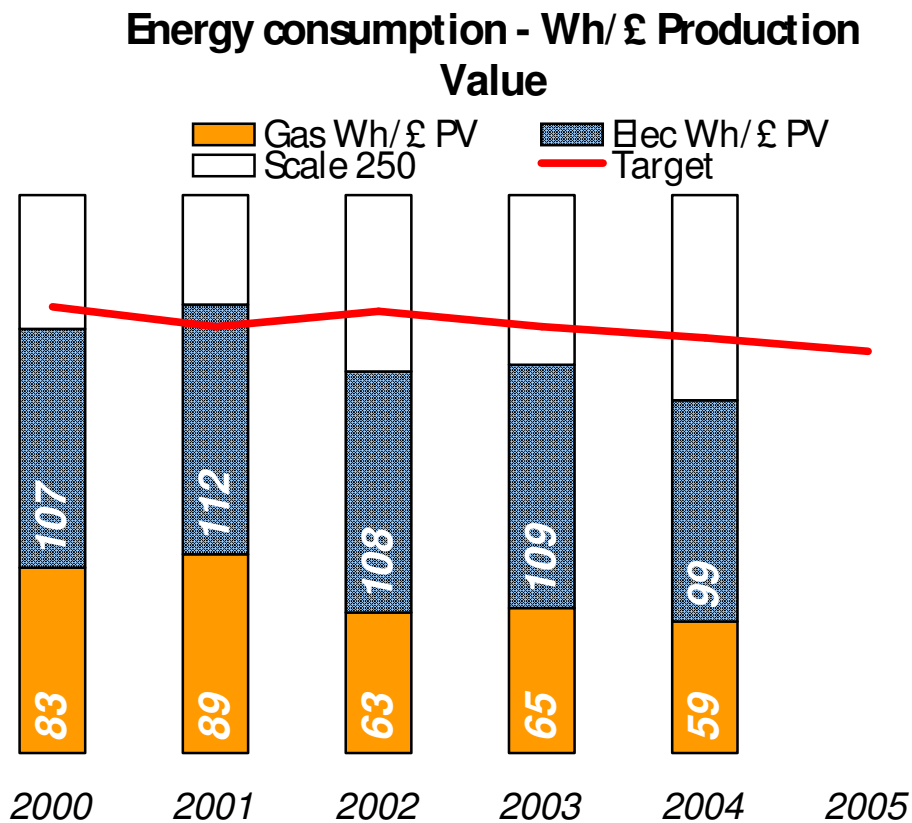
During 2004, an underground leak was identified from the fresh water supply pipe located between the main external water supply connection and the Grundfos Sunderland site. The leak was repaired at the latter end of 2004. It is thought that this will lead to significant water savings in 2005.



Energy consumption

Energy consumption is based on the amount of electricity and gas used.

The introduction of new automated machinery in 2003 increased electricity usage slightly, compared to 2002. Since gas is used for heating, the weather has a significant effect on the consumption level. Savings of 16 % are apparent since 2000. An 'energy survey' was carried out by Energy Management Systems on behalf of the Carbon Trust, in October 2004. This resulted in a report with several recommendations which will be reviewed during 2005. The objective has an influence over aspect 'c' & 'h' listed on page 4.



According to DEFRA guide lines on the reporting of emissions, the following tonnes of carbon dioxide (tCO_{2e}) have been produced.

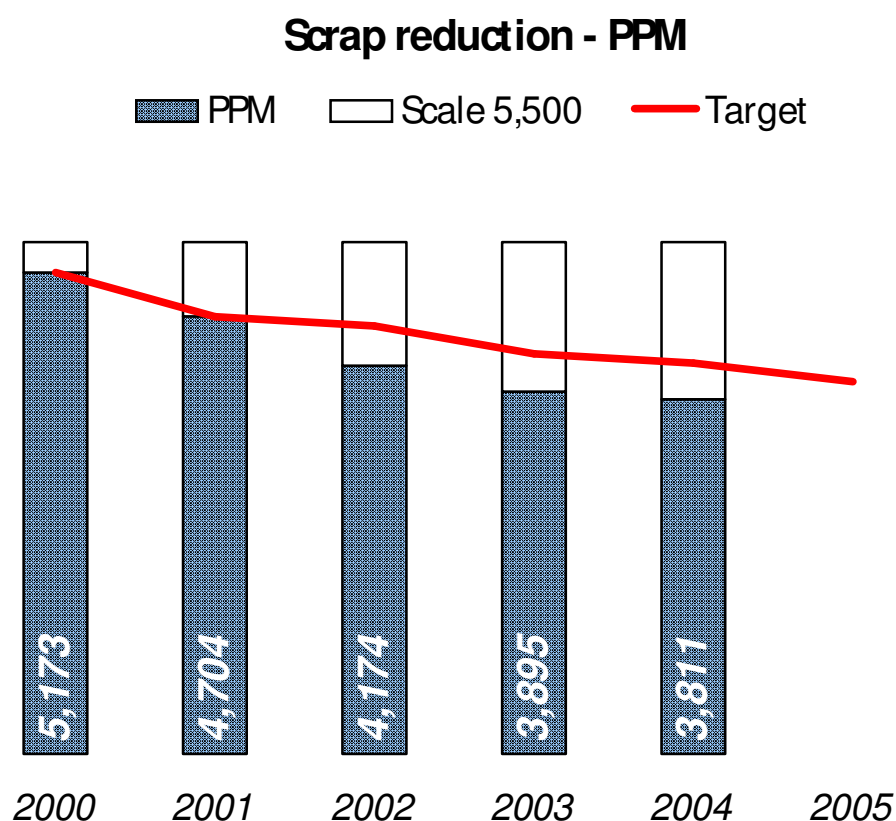
Year	Gas (tCO _{2e})	Electric (tCO _{2e})	Total (tCO _{2e})
2000	625	1,841	2,466
2001	626	1,787	2,413
2002	458	1,768	2,226

2003	482	1,834	2,317
2004	501	1,903	2,404

Scrap reduction

Our manufacturing processes result in some natural wastage and components, which are not to specification. These items are scrapped. Most of the scrapped items are sent for recycling, with the remainder handled as appropriate.

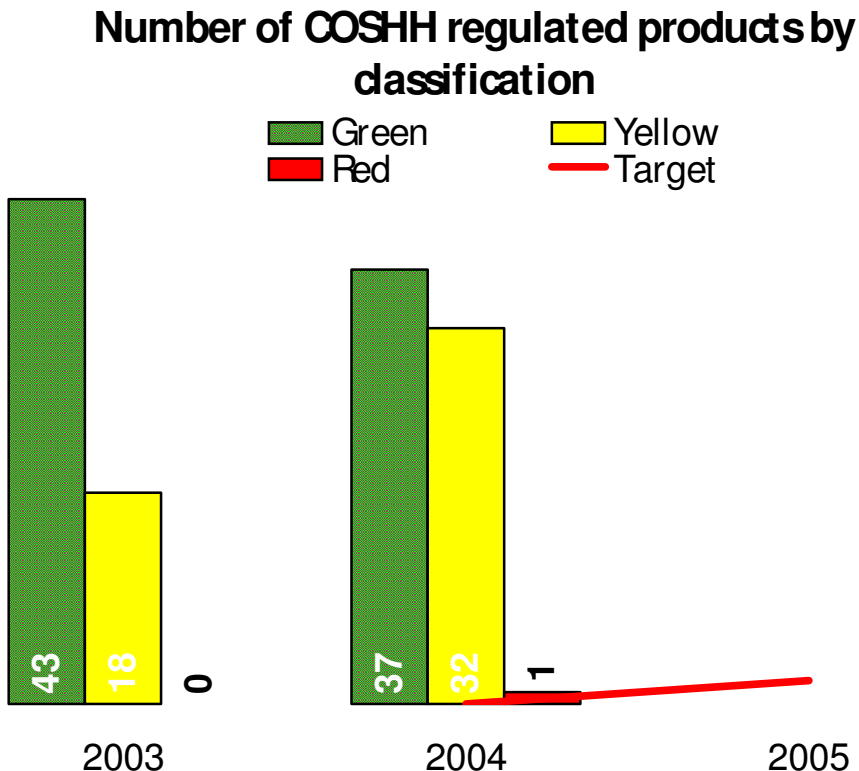
We have continued to reduce the amount of scrap produced from the site. We have reduced scrap by 26 % since 2000. The objective has an influence over aspect 'g' listed on page 4.



COSHH regulated items

COSHH items are chemicals and the like, which are controlled as they potentially pose a risk to human health as well as the environment.

As mentioned in the 2004 statement, in line with Grundfos Group requirements the way COSHH items were counted was re-assessed. Chemicals are classified into three groups - red, yellow and green - red being the most harmful. The target for 2004 was 0 red items, which remains the overall aim. However as some new processes will be introduced a target of 2 is set for 2005.

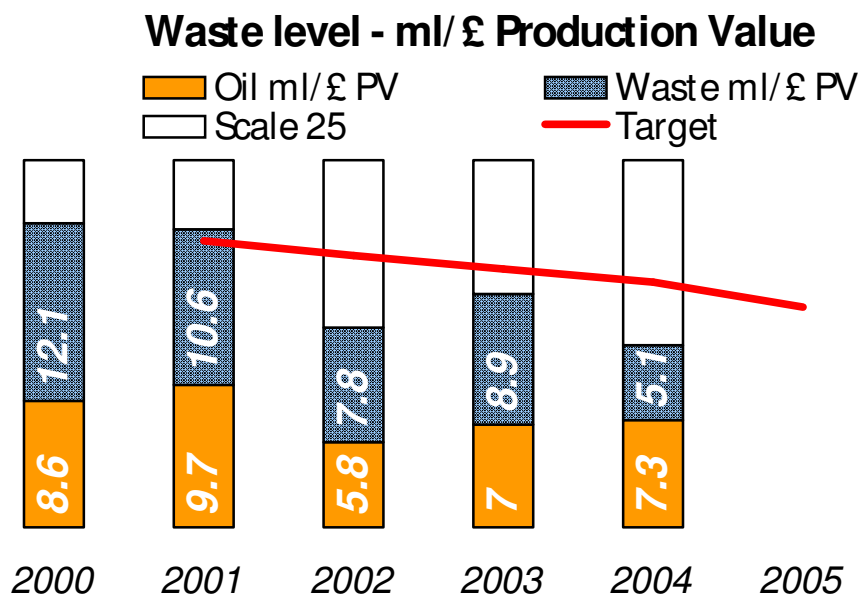


Waste level

This measure is an amalgamation of: -

- a) General waste - is waste produced on site which currently goes to landfill.
- b) Soluble oil - as part of the various machining operations, soluble oil is required to cool the cutting tools. At the end of its life, the oil is tanked off site for recycling as a form of Special Waste.

The above were reported separately in the 2004 report. We have seen a steady reduction in the amount of waste produced. From the base figure of 20.7 ml/£ Production Value (PV) in 2000, we averaged 12.4ml/£ PV in 2004. From October 2003 we have sent our general waste to a material recovery facility. This processing is recovering approximately a further 30 % of the general waste. The total reduction since 2000 is 40 %.



The other special wastes (ref item ‘f’ on page 4) produced on site are by products from our processes. It is difficult to reduce these wastes without eliminating or changing the process. Paint usage has remained relatively static over the last three years.

Year	Paint usage (Litres)
2000	28,528
2001	23,109

2002	20,277
2003	21,426
2004	20,974

Management system

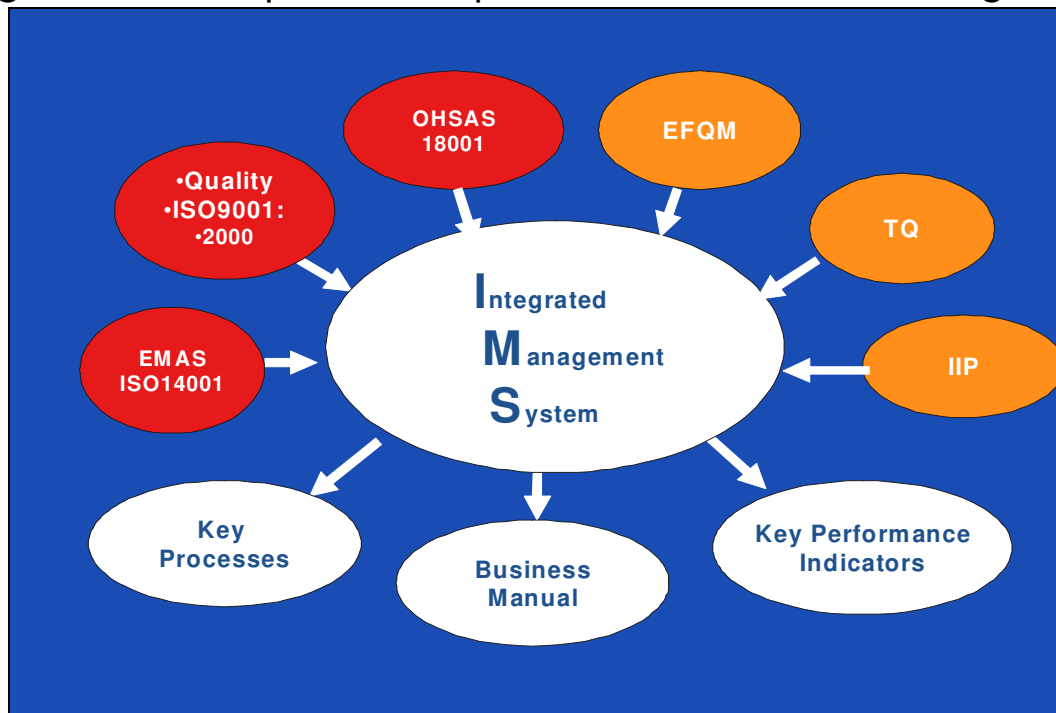
Grundfos Manufacturing has an Integrated Management System (IMS) which includes quality, environment and health and safety. The system consists of: -

- A Business Manual.
- Eleven Key Processes.
- A set of Key Performance Indicators (KPI).

The company are ISO14001:1996 registered (EMS34445) and hold EMAS registration number UK-000087, as well as ISO9001:2000 registered (Q09079).

The target of being OHSAS 18001 approved during 2004, has been postponed, and we will review our position in 2005.

Figure 1: - The inputs and outputs of Grundfos Manufacturing's IMS.



Environmental policy (abridged)

As a minimum Grundfos Manufacturing Ltd. will live up to the requirements of group, local and national environmental legislation and regulations.

Through education and information the Company will motivate employees, suppliers, customers and other stakeholders to environmental awareness.

The Company will show a high degree of consciousness with regard to both the internal and external environment and include a commitment to continual improvement and the prevention of pollution.

Within financially justifiable limits, the environmental impact and the consumption of resources must be limited across the whole Company. This will be achieved through the development and improvement of products and processes. Where it is financially and technically possible, cleaner technology must be applied.

Niels Vinther
Managing Director

Copies of the full Environmental Policy statement are available upon request.

