

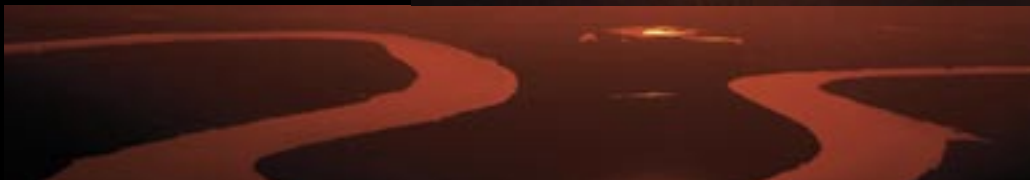


ITT

Flygt

# ACTIONS SPEAK LOUDER THAN WORDS

ITT Flygt sustainability report 2005–2006



*Engineered for life*

# WELCOME TO OUR FOURTH SUSTAINABILITY REPORT



## Old energy gives new energy

At ITT Flygt's main factory in Emmaboda, Sweden, over 96% of the energy mix is renewable. By using such things as solar panels, and district heating based on biofuel instead of fossil fuel, we do our bit in reducing the effect on global warming.



## Recovered water pays double

Recovery of waste water is an important part of the Australian Cuno Pacific's manufacturing process. With our solution, the company avoids losing valuable media into the sewer system. Apart from economic advantages, the company also has received approval from the Environment Protection Authority, as the system reduces the solids discharge rate by a massive 90%.



## No shortage of necessary supply

Problem-free operation, less repair and reduced costs of heating and dewatering in the process. These are some of the advantages gained from our N-pumps by the sewage treatment works in the Polish city of Lublin. For people in the vicinity, it means in turn that they always have clean, fresh water, a prerequisite for life and business to flourish.



## A healthier working environment in the hospital

Having to clean clogged pumps on a daily basis was time consuming and risky for service technicians at the Victoria Hospital in Vancouver, Canada. We analysed the situation, and gave a proposal for improvement. The new pumps have higher capacity and run continuously – they save energy and give a safer working environment.

**Sustainability is a word with considerable, varying content. Environment, social matters and economy are the three basic constituent parts – each of which covers a considerable area.**

In this report, we have chosen to allow several real-life examples to demonstrate how we at ITT Flygt work with sustainability. The purpose is to show that there is action behind our words. Describing how our pumps and systems give positive effects at several levels; irrespective of whether





#### Monitoring eye saves valuable resource

In Australia, water is a resource that must be used with care. Therefore a pump station in South East Queensland uses a monitoring and control system from us. The system makes it easier to quickly discover leaks and other problems that can cause unnecessary loss of water.



#### The dilemma of global transports

Our products are often shipped over long stretches. The negative consequence of this is pollution. However, we continuously strive towards finding better solutions – efficient delivery with minimum possible environmental effect is a prerequisite when we select partners for our transports. The goal is to be able to continually reduce the quantity of carbon dioxide per transport unit of work (grams CO<sub>2</sub>/tonkm/transported goods).



#### Sewage bypass for safety's sake

In such things as maintenance work or flooding, there is a risk of wastewater escaping into the natural environment and contaminating ground water. Then the solution can be to establish a sewage bypass. This requires an alternative system with pumps and pipes that safely and surely guide the waste water to the sewage treatment works.



#### Climbing for the poor

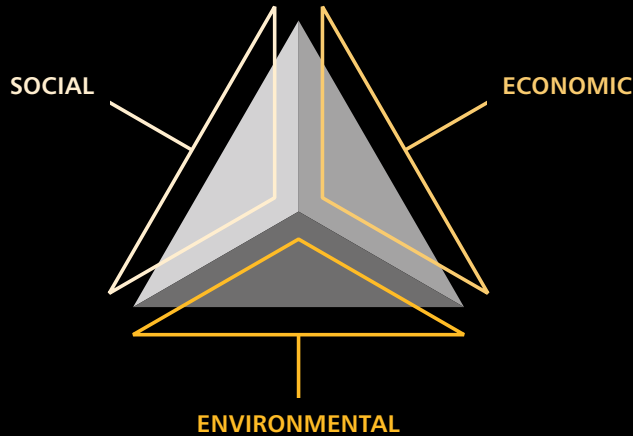
The Flygt Scotland team participated in the WaterAid 2005 Munro Challenge. The event, which is the biggest UK fundraising event for WaterAid, saw all the 284 Munros in Scotland being climbed in a day. Our team raised almost £1 000 towards WaterAid's total fundraising target of £300 000. Money which will help change the lives of 20 000 of the world's poorest people in Africa and Asia.

it is a matter of working environment for the local service technicians, or reducing emissions of carbon dioxide on a global basis. Although we are proud of our achievements so far, we are fully aware that sustainability is an ongoing process. We continuously strive to keep improving.

If you want to see more facts, cases and figures, please visit our website ([www.flygt.com](http://www.flygt.com)). Since 1995, we have collected data from a total of 140 units, including fully-owned units, factories, distribution centres and sales- and service shops around the world.

We engineer for life – on the following pages you can see the results.

# AN ISSUE THAT IS AS IMPORTANT AS WATER



For us, sustainable development is primarily a matter of taking responsibility and weighing all the environmental, social and economic aspects together. This means that we can contribute to social development through our products, systems and solutions. In the light of the UN's Millennium Development goals, which involve water and sanitation, we see many possibilities. We hope to contribute wherever we can.

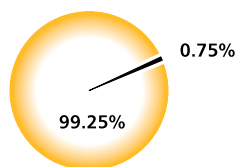
## The balance between consumption and production

At ITT Flygt, sustainability is of internal and external importance. We believe that the basis is built from inside, with employees who feel good and can develop in their workplace. We strive for continual improvements as regards to our own production. Our ambition is not only to act in accordance with legal requirements and recommendations, but also always to be one step ahead, irrespective of whether it is a matter of environment, working environment or safety.

In a wider perspective – and in view of climate change – it is important to look at energy savings through the life cycles of the

products we sell and which our customers maintain, repair and finally dispose of. The CO<sub>2</sub> emissions per year caused by usage of ITT Flygt pumps sold in 2006 was 2 419 000 tonnes. The emissions caused by production was measured up to 18 372 tonnes which is only 0.75% of the total emissions. Therefore it is natural that we focus on our input on energy efficient products (while at the same time reducing the use of energy and raw material in our production).

Between 2005 and 2006, we increased the average energy efficiency by 0.5%. The total lifecycle CO<sub>2</sub> emissions for all the pumps sold globally in 2006 will be reduced by 140 985 tonnes.



Carbon dioxide emissions arisen from production and transportation in relation to emissions caused by using the products (figures for 2006).

## The UN Global Compact – a high level commitment

ITT Flygt joined the UN Global Compact in 2002. The initiative is from the Secretary General of the UN to the international business community to adopt an ethical code and thus contribute to improving working conditions and environment for people all over the world. In brief, to allow the sustainability argument to translate into concrete action, with visible global outcome.

At [www.flygt.com](http://www.flygt.com), you can see how we fulfil the principles and follow them up through metrics and audits. Our supply chain is also affected by this. We have declared that we expect our suppliers to follow these principles, and we intend to further extend our supplier audits.

More information concerning the UN Global Compact can be found on [www.unglobalcompact.org](http://www.unglobalcompact.org)

# COMPETITIVE ADVANTAGE WITH BROAD EFFECT



By weighing the sustainability perspective into product development, we produce pumps which, among other things, last longer and are more cost effective. That gives us business solutions that are attractive and live up to the various demands of the market, for example, environmental suitability. In practise, sustainability is thus an important competitive advantage – for us, our partners and our customers.

## Life Cycle Cost – the art of estimating for the future

As a customer, it can be difficult to know what solution is best in the long run. The answer is given through a Life Cycle Cost Analysis. The Life Cycle Cost of any piece of equipment is usually defined as the total cost of purchasing, installing, operation, maintenance and disposal of that equipment. The secret is in not only looking at the price – which often only makes up about 10% of the total cost – but also being more long term. With our calculation tools, the customer can compare various pumps (both from us and from our competitors) and put together the system that gives maximum energy efficiency.

## Durable design

The question of sustainability has, of course, high priority even on the drawing board. The

illustration below shows how a sustainable value chain is formed on the basis of a requirement from a customer, and what the goals are for the various parts. All aspects of the chain are also of importance regarding total life cycle cost, and the usage phase is of central importance.

A sustainable pump has high efficiency over time, and needs minimal maintenance and repair. High efficiency has several positive effects; low energy consumption leading to low operating costs and low carbon dioxide emissions. A wear-resistant pump that does not clog will maintain its efficiency over time, and thus will reduce the number of interventions needed to keep the pump running. This leads to lower maintenance costs, reduced fuel consumption for service cars and lower carbon dioxide emissions.

R&D/new design	Manufacturing	Transport	Usage
High efficiency Anti-clogging Wear resistance Low weight Recycled materials	Low material utilisation Low cost	Low fuel consumption	Low energy consumption Low purchase cost Low maintenance requirement Good working environment Low fuel consumption

## Some examples of current sustainability investments

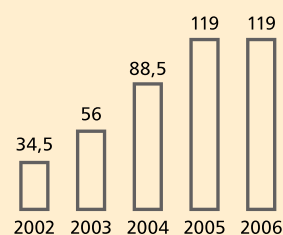
■ Our first Code of Conduct was distributed world wide in the early 1990s. It was reinforced in 2003 and is now translated into 17 languages. Top managers must respond to quarterly surveys if they are aware of any violation of the code. One of the actions during 2005–2006 has been to introduce an Ombudsman in each country in which we operate, to whom our employees can address any issue that conflicts with the code. In 2007, an intranet/CD disc training session with quiz questions is planned for all employees.

■ During 2006, we set up a management system, IMS (Integrated Management System), in which the UN Global Compact principles are integrated. 2007 involved our "ISO certified units" being transferred to one Multisite certificate, including ISO 9001 (14 units), ISO 14001 (6 units) and OSHAS 18001 (1 unit). With this, we obtain a standardised system for the units, all efficiently audited by one Certification Company, ensuring credibility.

■ A balance score card system to follow up key business indicators including some environmental and social data was introduced in 2005.

■ In cooperation with the University of Kalmar we have developed a method for calculating a Sustainability Index with which to follow up our work with responsible business. It also tells us about the balance between development in the financial, environmental and social areas. The overall trend is slightly positive – we are making progress. Analysis of the data reveals that we have stronger development on the financial and environmental side and show slower development on the social side. Read more on [www.flygt.com](http://www.flygt.com)

## ITT Flygt Sustainability Index





## SUSTAINABLE CONSUMPTION – MEETINGS IN REAL LIFE



Reduced emissions at waste treatment plant, Duisburg, Germany.

Dewatering relief after hurricane, New Orleans, USA.



**It is when our pumps leave the factory and encounter reality that things get really interesting. It is then that we have to show our colours as regards to sustainable consumption. In development work, which is continually ongoing, we strive for solutions that are both cost efficient as regards to our customers, and give positive effects for society and the environment – locally and globally.**

### **Biogas project with many synergy effects**

As global warming increases, it becomes ever more important to find alternative methods of generating energy. There are many good methods already, it is just a matter of taking the next step to utilise them fully.

ITT Flygt delivers products to an extensive project in Germany for generating electricity from renewable biogas. The client is NAWARO Bio Energie AG. In November 2006, the first biogas plant opened in Penkun. A further 39 plants are under construction and will be completed by autumn 2007.

Biogas is formed from biological fermentation of organic material, such as crops. In order for the fermentation process to function, it is necessary for the biomass to be stirred. Our mixers ensure that bacteria come into contact with the nutritious substances, that the biogas is led off, and that added biomass is mixed into the process.

Producing biogas gives lower emissions of NO<sub>x</sub> and volatile hydrocarbons – and no dust or ash is formed. Apart from the fact that production at BioEnergie AG's plant is an

environmentally adapted alternative, the project also contributes to the region by creating up to 50 jobs at each plant. Long-term agreements are entered into with local farmers, who deliver the organic material. Also, important added value is created: the residual substrate is converted into depot fertiliser using the heat produced during power generation. This is used in the fertiliser production unit that is set up at every plant.

In total, the project shows that renewable energies can be produced using biomass on an industrial scale in a profitable, efficient and reliable way.

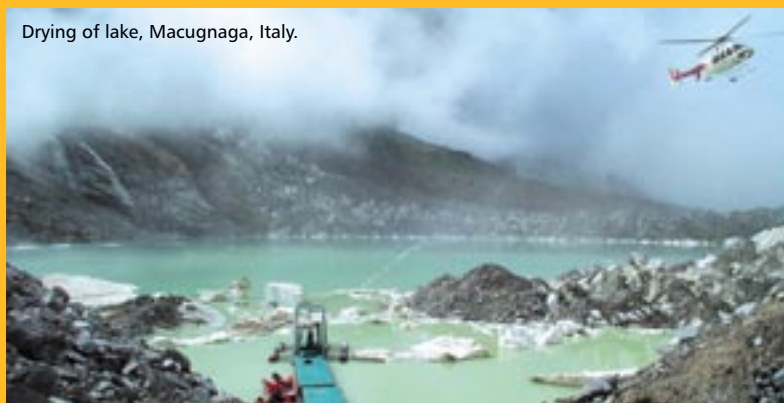
### **Dewatering as a means to rebuild**

When an area has been hit by a natural catastrophe, for example, during the tsunami in Asia, the issue of water has high priority. The flooded areas need to be dewatered, and also a water supply must be established as soon as possible.

When Hurricane Katrina devastated New Orleans in August 2005, ITT Flygt immediately made its resources available. We installed a new plant for clean drinking water and pumps for removing floodwater. We also catered for the personnel, necessary for running the equipment.



Flexible waste water system, Perth, Australia.



Drying of lake, Macugnaga, Italy.

In general, water supply and management of waste water are the basic steps for a community to make progress. A report from the World Health Organisation (WHO) and the Stockholm International Water Institute (SIWI) shows that poor countries with access to water and sanitation have had an annual average GNP growth rate of 3.7%, while in countries without sufficient investment in these areas, annual growth was only 0.1%.

We try to make our contribution and assist with development where it is needed. For example, we have donated 40 pumps to the Maldives for cleaning salt water from storage reservoirs. ITT Flygt's distributor in Sri Lanka is the coordinator of all ITT Corporations's aid input in the area. They contribute with training, warehousing and carrying out service on all company products.

Another example comes from Italy where melted snow and ice created a lake inside of a glacier. This was due to high summer temperatures. The water threatened to flood the village of Macugnaga because of the glacier's unstable condition. The Italian Civil Protection solved the problem by using ITT Flygt pumps to drain the lake.

### **Minimised energy input reduces emissions**

The Duisburg Rheinhausen waste treatment plant in Germany processes waste water from 225 000 inhabitants. After having had problems with submersible water mixers that did not work sufficiently, they decided to change supplier. Our solution has involved eliminating the thick layers of deposit which formed previously. This means that expensive operating stoppages and manual cleaning of the tanks are avoided. The specific energy input of the agitators has been minimised. A further advantage is that the higher flow rates prolong the residence time of the imported air, and thereby improve the oxygen transfer rate. Minimised energy consumption with the products means that carbon dioxide emissions can be reduced in the long term.

### **Close cooperation in a growing region**

The area between Perth and Rockingham in Australia is experiencing a major population expansion. Here are jobs and coveted residential areas close to the ocean. Of course, it is of greatest importance that the waste water system can cope with an increased load. The customer, the Water Corporation, has chosen a flexible system in close cooperation with us, which manages to work without disruptive down-time on account of pumps constantly ragging up (previously a problem). Hydraulic end features mean less maintenance time and more pump efficiency throughout the lives of the pumps.

SUSTAINABLE PRODUCTION –  
INTERNAL ISSUES WITH  
EXTERNAL EFFECT



ITT Flygt, Emmaboda, Sweden.



Environment, safety and health (ESH) have been on ITT Flygt’s agenda for over ten years. We were an early adopter of environmental management systems (EMS), basing our systems on ISO 14001 standards, among others. During 2005–2006, we have continued to work to come ever nearer to sustainable production. This is a matter of internal processes, in which we look critically at our own activities; right from working environment to how manufacturing can be more environmentally adapted.

**Continued efforts to save resources**

Some 1 200 people work at our largest factory, at Emmaboda in Sweden. The greater part of our manufacturing takes place here.

*Energy efficiency in the factory*

During 2004–2006, the consumption of electricity in terms of MWh/tons of delivered products was reduced by 8%. The consumption of district heating per m² heated surface area has been reduced by 9%. Here are some examples of the measures we carried out:

<ul style="list-style-type: none"><li>• District heating based on biofuel</li><li>• Electricity based on renewable energy</li><li>• Registering meters for district heating, electricity and water consumption are connected to a monitoring system</li><li>• Efficiency control of electricity consumption</li><li>• Re-use of internal waste heat from the melting ovens in the foundry</li><li>• Recovery of heat from ventilation</li></ul>				
Electricity	2004	2005	2006	
MWh	36 593	36 476	40 210	
Tonnes of products	22 529	23 600	27 044	
MWh/(tonnes of delivered products)	1.62	1.55	1.49	
District heating				
MWh	6 793	6 489	6 637	
m² heated surface area	100 972	107 101	108 742	
kWh/m² heated surface area	67	61	61	

As a reward for our work, in 2006 we won the Swedish Foundry Association’s Energy prize for proactive work with energy efficiency

*Reduction of virgin resources in our castings*

For production of castings, we use about 8% of virgin material (hematite) and 3% alloys. The castings are mainly produced from re-used metals. About 25% consist of rejected castings from our own production. Copper spillage from the windings of electrical stators is used as an alloy in the castings. Metal chips from machining the iron castings go back into the melt after the cutting fluid has been separated out.

*Foundry sand prevents environmentally dangerous leakage*

Municipal dumps that do not live up to EU requirements have to be closed – and also sealed to prevent pollution from the waste. At the Lidahult dump in Emmaboda, excess foundry sand (classified as inert material) from our manufacturing was the solution. This could save the municipality millions of SEK because the authorities do not need to buy virgin bentonite and other construction materials. And with fewer transports of virgin materials and foundry sand, CO<sub>2</sub> emissions can be reduced.



### **Due Diligence for long-term relations and solutions**

When we were to acquire the pump manufacturer, Mody Industries in Thane, India, the company's ESH status was an important aspect. In order to know more, a thorough Due Diligence was carried out, including analysis of soil, groundwater samples, and

building and equipment materials. The aim was also to become familiar with the Mody Industries' management team, employees, activities and premises, and to get a first glimpse of Indian culture. The complete Due Diligence process allowed us to get a clear picture of all the activities conducted by Mody Industries and to define and prioritise improvement actions, making this new location a world-class site as regards employees welfare and environment protection.



Mody Industries, Thane, India.

### **Zero Accidents in China – a receipt for our safety work**

As parts of ITT Flygt's strive towards better and safer working conditions, 2006 saw a breakthrough in Shenyang, China. For the first time, an ITT Flygt factory achieved the goal of zero accidents or casualties in Flygt's Zero Accidents safety program. The result was additionally pleasing as the factory employs over 200 employees.

The Zero Accident safety program stems from an ESH management system combined with a training program. The training program included all the factories employees, where management played an important part in the integration process. To ensure a proficient implementation, an extensive inspection program was introduced as means for monitoring progress.

The successful introduction and implementation of the safety program has made it an integral part of the continued work in China and has affected the planning and building of a brand-new factory, currently under way. Here, ESH has been fully involved from the start to ensure that the new factory from start including future operations adhere to the targets set in the Zero Accident safety program.

### **Focus on ESH work in Argentina**

Environment, Safety and Health have always been a priority for ITT Flygt Argentina. For many years, the facility has been closely working with an external specialist who provides various services such as regulation updates, training, industrial hygiene monitoring, etc. Despite the major financial crisis which hit the country at the beginning of the 21st century, regular visits from the specialist continued to take place, ensuring that the appropriate ESH activities were carried out.



ITT Flygt, Shenyang, China.



ITT Flygt, Argentina.

# CEO STATEMENT

PER-INGE BIRGERSSON

**“Working towards a sustainable business together is not only the key to success. It is, quite literally, the key to the future.”**



Water is a critical resource in any human community and an essential element of life itself. This is why the effective management of clean water as well as waste matter has always been an important marker of social development. Looking ahead it is also a major challenge for the world – an equally humbling and challenging perspective.

We are committed to sustainable development by managing every aspect of our business in a responsible way – i.e. pro-

viding solutions that cover the complete water lifecycle.

With production and consumption in mind, sustainability is a natural and integrated part of our everyday business enhancing our capabilities in developing, producing, selling and distributing sustainable products and solutions. Therefore, our focus is not only

## Important indicators

Indicator	2005	2006	Unit	Comment
Sales	986 321 731	1 211 361 901	\$USD	The 2006 figure does not include inter-company
Total number of employees	4 346	4 445		
Male/Female	3 392/954	3 441/1 004		
No of male members in top management	146	125		The figures do not include some of our smaller units that stand for 172 employees in 2005 and 215 employees in 2006
No of female members in top management	30	38		As above
% of female members in top management	17	23.3		
Employee turnover	9.80	7.10	%	The figures include only salaried employees
Injury severity	37.42	31.01		Number of lost workdays/100 employees/year
Injury frequency	2.96	2.83		Number of lost injuries/100 employees/year
Number of training hours	70 995	56 970		
Employee Engagement Index	–	3.7*		The indicator spans between 1 (totally disagree) and 5 (totally agree)
Energy usage group	5 602	6 672	tonnes of CO <sub>2</sub>	Energy, heating and production
Transportation emission for 80% of the production (Emmaboda site)	9 097	11 700	tonnes of CO <sub>2</sub>	
Indexed water consumption group	178.45	130.34	litres/US\$ sales	
Indexed waste volume group	9.66	10.56	All waste (kg)/\$kUSD sales	
Recycled waste group	6 723	9 600	tonnes	
Non-hazardous waste recycled	6 662	9 500	tonnes	
Hazardous waste recycled	61	100	tonnes	

\*) The result for 2006 figure is reworked and is therefore not compatible with previous results. It stems from the following questions:  
 – Overall, I am extremely satisfied with ITT as a place to work  
 – I would gladly refer a good friend or family member to ITT for employment  
 – I rarely think about looking for a new job at another company

### Milestones 2005–2006

Our achievements in sustainable consumption and production:

#### Sustainable consumption

- Expanded the range of energy efficient pumps (N-pumps) enabling better solutions for our customers.
- Launched a world leading drainage pump – reliable (robust, less service) and efficient.

#### Sustainable production

- Streamlined the manufacturing operations in our main plant in Sweden (stands for 80% of our total production). The result was an increase of 25% in productivity.
- Strengthened our presence in Asia with a small manufacturing unit in India and by establishing a new manufacturing site in China. We have also acquired two units in the US.

### Outlook for the future

We will continue to strive to improve our efforts in both sustainable consumption and sustainable production. Below are the areas of focus for 2007 and 2008:

#### Sustainable consumption

- Continue to build on sustainable relations – develop partnerships with customers to help them minimize their life cycle cost.
- Engineer for life – continue to launch products with higher energy efficiency and reliability.
- Monitor Product Efficiency – include this as a key performance indicator.

#### Sustainable production

- Revise the CO<sub>2</sub> budget.
- Monitor Transportation Emission – include this as a key performance indicator.
- Launch Zero Accidents – introduce the safety program for all units, world wide.
- Enhance our Code of Conduct – training for all employees.
- Improve the Supply Chain Audits program – continue to develop and conduct the audits.

on high-quality products, but also on giving customers a peace of mind.

It is obvious that the task at hand is one not fought alone. Therefore it is essential that we continue to bring the sustainability aspects into all our relationships, locally and around the world. This includes our suppliers, distribution channels, service partners and customers – as well as our own dedicated and resourceful employees.

Working towards a sustainable business together is not only the key to success. It is, quite literally, the key to the future.

This is how we engineer for life.

  
Per-Inge Birgersson CEO, ITT Flygt

### What we think about ITT Flygt's employee engagement

**"Employees who are well and proud of the company can accept new challenges. It is all about cooperation with the joint objective of securing our jobs in the long term."**

**Kent Johansson**  
Group union representative, ITT Flygt Sweden



**"ITT Flygt's engagement in the employees makes me feel safe – and it gives me and my family a stable life."**

**Zhang Shiwen**  
Finished product inspector, ITT Flygt China







# ITT

ITT Flygt is the world's leading manufacturer and supplier of submersible pumping and mixing solutions. Flygt products are used within construction, mining, wastewater handling and numerous other industries. Our experience is utilized to ensure reliable and cost-effective water-handling solutions around the world. ITT Flygt has sales and service facilities in more than 130 countries.

ITT Flygt is a wholly owned subsidiary of ITT of the White Plains, New York ([www.itt.com](http://www.itt.com)), supplier of advanced technology products and services in a line of industrial branches. Its employees are approximately 41,000 around the world and the company generated USD 8.8 billion in 2006 sales.

**[www.flygt.com](http://www.flygt.com)**

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