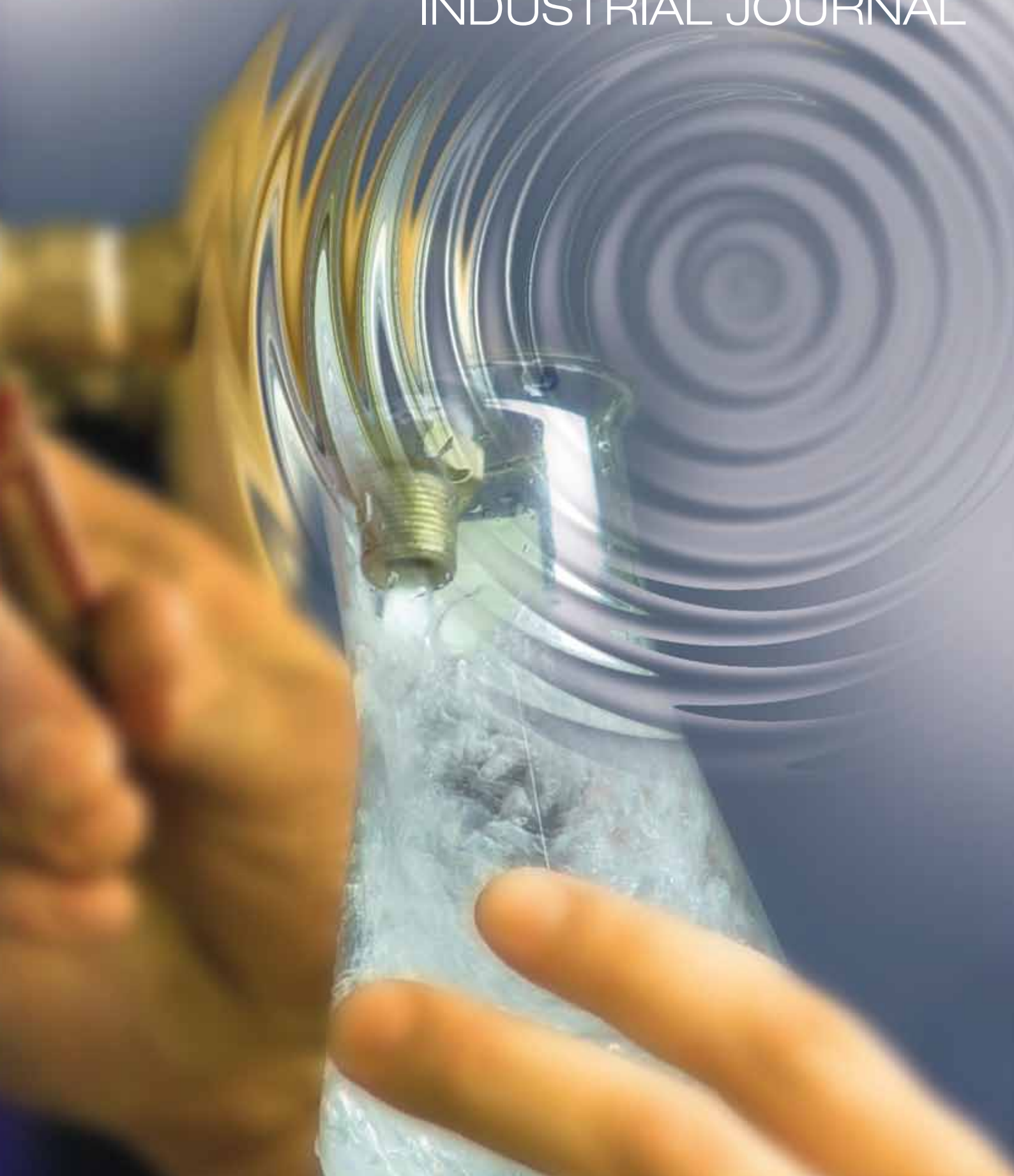


# GRAND FER

INDUSTRIAL JOURNAL



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Peter Ortner  
of the Grander sales organization U.V.O.

# Clear Water for Industry

## An Asset for Companies – An Opportunity for the Environment

Never in our wildest dreams did we dare to believe, in the early days of developing the Grander Water revitalizing system, that we could ever produce a brochure such as the one you are reading right now. The success story of Grander Water and its worldwide presence is, first and foremost, based on the experience of satisfied home users. Grander Water revitalization has been around for more than one and a half decades and has recently expanded its activities to include applications in industry, a sector in which measurements are exact and calculations are accurate. One of the major problems faced by many companies is water quality in the cooling circuit. You may be surprised to learn that it is often leading technicians in industry who, to a greater or lesser extent, try to avoid using chemicals, replacing them with the Grander Water revitalizing system. We are not that surprised, since we have

seen many technically-oriented individuals with a scientific background, who originally doubted and were suspicious of our claims, endorse our product or even become our partners. This also explains why it is often high-ranking officials who promote the introduction of Water revitalization in a company. After successfully using Water revitalized water at home, they wanted to know if Grander Water would also perform efficiently on a larger scale. The multitude of different applications, ranging from plastics production to truck assembly, from glass-making to brewing beer and from leather to cheese making, to name but a few, would never have been possible without companies being proactive, having a pioneering spirit and being keen to experiment. We would like to take the opportunity to acknowledge their valuable contribution and thank them for kindly sharing their measurement results and experi-

ences with us. Most companies apply Grander Water revitalization not only for technical and economic reasons, but also for environmental protection, to reduce the strain placed on water resources. Just as industry has benefited from the experiences of home user, home users will benefit from the measurable results in the industrial sector.

Of course, this brochure can only provide a first, incomplete picture. No one could justly accuse the companies featured herein of naively embracing far-fetched claims, so we believe the time is now right to proudly present you with their experiences regarding the use of Grander Water revitalization in industrial and commercial applications.



#### Information

using GRANDER since 2005

#### Allgäuland-Käsereien GmbH

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[www.allgaeuland.de](http://www.allgaeuland.de)

1\_ 50% savings on chemicals and 20% on water in cleaning machines

2\_ Operations director Karl-Michael Grueber has confidence in the Grander effect.

# A Better Cleaning Agent

**The Allgäuland cheese dairy in Sonthofen, Germany, relies on Grander Water revitalization for its cleaning**

The products made by the Allgäuland cheese dairies are a real treat—slice-by-slice. Emmentaler, parmesan, hard cheese, grated cheese, milk and fresh products – the list of their specialties is almost endless, and recently tofu became the latest addition to their shelves. The Allgäuland cheese dairies were originally founded as a consortium of dairy cooperatives with the aim of uniting their skills and know-how in terms of dairy production into a professional unit dealing with everything from processing to marketing. Out of a regional dairy cooperative was born a company that is now active on the international stage. The company is one of the

ten largest milk processing companies in Germany and is now over 106 years old. However, the quality of its raw material, milk; the technical know-how of the cheesemakers and hygiene are still decisive factors in terms of the success of the end product.

After successfully trialing Grander Water revitalization at home, Karl-Michael Grueber, operations director of the Allgäuland cheese dairy in Sonthofen, promoted its use at the plant. “At home, I had noticed that there was much less limescale. I wanted to use Grander Water at the plant to save on chemicals and water in the cleaning process,” explains Grueber.

Since 2005, revitalized water has been flowing through the cleaning systems used to clean the tanks and pipes. The result: “We have made savings of 50% in terms of chemicals and 20% in terms of water, because Grander water is a better cleaning agent. This has meant a reduction in operating costs of around 7,000 euros a year,” estimates Grueber. The concentration of nitric-acid-based cleaners has dropped from 1.3% to 0.7% in eight or nine months. Grueber’s final words on the subject: “I believe that Grander Water revitalization is very effective in our sector of the industry.”



1\_ Austria Tabak is Austria's largest cigarette producer.

2\_ Graduate engineer Martin Haberfelner: 40% savings on chemicals



#### Information

using GRANDER since 2005

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# Revitalized Air-Conditioning System

**Austria Tabak boasts annual savings of approx. 40,000 euros in operating costs**

The "Austria Tabak" plant in Hainburg, Lower Austria, produces about 13 billion cigarettes per year. It was founded in 1784 as a state-owned enterprise by Emperor Joseph II. In 1997, it was partially privatized and quoted on the Vienna Stock Exchange, and by the middle of 2001, it was bought by the Gallaher Group Plc. Since April 2007, Austria Tabak has belonged to the JTI group of companies and is therefore part of Japan Tobacco, the third largest tobacco company in the world.

Grander Water revitalization was first installed in 2000, when an air-conditioning system at the Fürstenfeld plant was chosen for test purposes. Inside the production facility, air-conditioning

systems ensure a constant room temperature of 22 degrees Celsius and a relative humidity of 60%. These systems renew and purify the room air and regulate temperature and humidity. The air is cleaned and humidified using water nozzles that create a fine mist. In order to prevent algae growth and contamination of the air-conditioning systems, chemicals are added to the water.

After a Grander Water revitalizing system was installed, the company was able to significantly reduce the quantity of chemicals used and greatly increase the intervals between cleaning. Due to the excellent test results, the use of Grander was expanded, with seven Water revitalizing systems providing clean air for the production facility at

Hainburg and circulating 450,000 m<sup>3</sup> of air every hour. "In 2003, we spent approx. 100,000 euros on chemicals for use in air-conditioning systems, whereas, after using the Grander Water revitalizing system, we have made annual savings of 40%," estimates graduate engineer Martin Haberfelner, who is responsible for energy matters at Austria Tabak.

After successful application in Hainburg, the company's administrative headquarters in Vienna were also equipped with a Grander system in 2005. In addition to the air-conditioning systems, Grander has been installed in all in-house drinking water systems so that employees can also enjoy revitalized water.



1\_ Boxmark supplies leather to the automotive, furniture and clothing industries.

2\_ Center manager Josef Neubauer: We have found an optimum alternative to chemicals in Grander Water revitalizing.

# Precision Leather Splitting

**A lot of water is needed in the processing of leather, but water can also be an unmanageable commodity. Boxmark Leather has optimized the production process by using Grander Water revitalization**

Boxmark Leather has its company headquarters in Feldbach in the Austrian province of Styria where every year they manufacture and globally distribute approx. 12,400 km<sup>2</sup> of high-quality upholstery leather made exclusively from cattle hide for the automotive and furniture industry. Boxmark counts among their clients brand names such as Audi, Bentley, Daimler, Lamborghini, high-end Italian furniture designer Poltrona Frau, Porsche, VW, Wiener Werkstätten, Wittmann and many more. Splitting leather into two layers is a key step in leather production. Boxmark uses only the top-quality full-grain side; the less expensive split-grain is used to make suede and leather for shoes, handbags, clothes and accessories. This is where Grander Water revitalization comes in.

The Grander system is used in the rinsing system of the splitting machines and in the open cooling systems. The splitting machine is a precision

instrument, which splits the cattle hide with an accuracy of 0.2 to 0.3 mm. If the water quality is poor, the leather is split unevenly, i.e. there is more wastage. The machine is supplied with 6 m<sup>3</sup> of water every hour. "The splitting machine was encrusted with limescale, even though we were using chemicals. The water was so hard that it affected the accuracy of the band knife," describes center manager Josef Neubauer. He started looking around for an alternative and, since 2003, revitalized water has been flowing through the rinsing system. There are hardly any limescale problems and the quantity of chemicals used has been significantly reduced. "For every cubic centimeter of water, we needed 30 cents worth of chemicals. We've been able to save 100% here, which translates into annual savings of 2,500 euros," confirms Josef Neubauer, providing evidence of an extra benefit, in addition to an improved production process.



Information  
using GRANDER since 2003

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[www.boxmark.com](http://www.boxmark.com)



1\_

1\_ Grander Water revitalizing in use at the Daimler plant

2\_ Water quality in the cooling systems: clear and free of chemicals

# Clear and Free of Chemicals

**Daimler's Mercedes-Benz truck assembly plant in Wörth in the German state of Rhineland-Palatinate saves chemicals and water by using Grander Water revitalization**

Daimler operates the world's largest truck assembly plant in Wörth on the Rhine river. For over forty years, trucks with such recognizable names as Atego, Actros and Axor have been rolling off the production lines. The product range includes light, medium and heavy trucks for long-distance, regional and construction trucking, as well as special-purpose vehicles such as the Unimog and the Econic. Last year, the successful company sold more vehicles than ever before.

By using Grander Water revitalization in its cooling systems, the company aimed at reducing the use of chemicals and saving on operating costs. Previously, corrosion and bacteria were removed by using biocides and stabilizers. The plant's cooling system is an open system and

is used to cool air compressors, machinery and compressed air. In the compression process, air is heated. It must then be cooled to normal temperatures for use in the plant. The change of seasons alone represents a significant problem. In the spring, pollen are blown into the open cooling system, whereas in the summer, the extreme heat poses a danger.

Revitalized water has been flowing through the plant's cooling systems for one year now. Chemicals are hardly ever required, which resulted in huge savings in terms of operating costs last year.



2\_

#### Information

using GRANDER since 2006

#### Mercedes-Benz Werk Wörth

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D-76744 Wörth (Rheinland-Pfalz)  
[www.daimler.com](http://www.daimler.com)



1\_



2\_

1\_ Eckelt Glas manufactured explosion-proof glass for the new World Trade Center in New York.

2\_ Heinz Baumgartner checks the filters. Since the introduction of Grander Water revitalizing there is hardly any glass dust.

# Happiness is Made of Glass

## Eckelt Glas swears by Grander Water revitalization in glass production

Since 1989, Eckelt Glas has been a subsidiary of the French multinational Saint-Gobain Group, the world's leading company in terms of glass production and heat insulation. Saint-Gobain is one of the 100 largest industrial groups in the world. The company is divided into the following areas of expertise: glass systems, design, heat insulation, safety, sun protection and interiors. It has also broken new ground with its symbiosis of art and glass. Among other things, Eckelt Glas provided explosion-proof glass for the 7th World Trade Center in New York, thus meeting the stringent safety requirements and supplying a special glass solution for the entrance area of the world's safest skyscraper.

Since 2003, Grander Water revitalization has been used in the grinding and rinsing process involved in the production of glass. Water is needed to polish cut edges, remove dirt and cool working materials. "Dirt and dust produced during the production process found their way into the machines and were extremely difficult to remove," explains Heinz Baumgartner, who is responsible for maintenance. Glass dust, which collects in the pumps and filters, is much more readily removed since the introduction of the Grander Water revitalizing system. Previously, filters were used three to four times, now they are used twenty times. "The management's decision to invest in Grander Water system was

surely the right way to go," says Baumgartner. "We were able to save on flocculants, cleaning processes have been optimized and water quality has improved markedly," he adds.

### Information

using GRANDER since 2003

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[www.eckelt.at](http://www.eckelt.at)



1\_



2\_



3\_

# Putting out the Flags

The Fahnen-Gärtner flag manufacturing company in Mittersill uses Grander revitalizers to improve their process water quality

The company's product line ranges from flags of all shapes and sizes to embroidered banners for military and organizational use. Additional accessories such as flagpoles and small items such as patches and badges complete the range. The flags and banners that leave Mittersill adorn the palace of the Austrian president and many other government buildings. Municipalities, commercial and industrial enterprises as well as the hotel and catering trade are amongst the companies preferential clients. Every year, 100,000 advertising banners are produced, along with 30,000 national and international flags in a variety of sizes and colours. Half a million of square meters of material are used to produce the huge assortment of flags and banners, which are then supplied to Olympic Games and World Championships held in Europe. An emergency forced Fahnen-Gärtner to take a fundamental decision. The problem was quite literally blowing in the wind. Eight years previously, a wastewater system had been installed to treat the water used in the production process so that 70% could then be reused as process water. "During the night, when the plant was idle, an overpowering, putrid smell was given off," remembers managing director, Gerald Heerdegen. Air quality in the plant improved significantly after installation of the Grander Water revitalizing sys-

tem in both the process water and the washing areas. "The number of bacteria has been clearly reduced and the smell of the water has improved," confirms Heerdegen.

Experiments are also underway in another area. 1,200 to 1,400 liters of oil are needed every day to produce steam. An additional Grander unit was installed in the oil line.

"Since we started using revitalized water, we have been able to save on the use of heating oil and we are expecting the boiler to be more effective," says Heerdegen. He sees Grander Water revitalization as a way to protect the environment. "Our company attaches great importance to the conservation of the environment and natural resources. Grander is a valuable contribution to this end," Heerdegen states with great conviction.

**Chart:**

Anaerobic bacteria are responsible for unpleasant smells. During the observation period from May to November 2004, the bacteriological status improved markedly and odour emissions were clearly reduced. The results were measured by an accredited scientific institution.

1\_ Embroidered flags for military and organizational use

2\_ Gerald Heerdegen: an opportunity for the environment

3\_ 100,000 advertising banners, plus 30,000 national and international flags are produced every year.

**Information**

using GRANDER since 2004

**Fahnen-Gärtner GmbH**

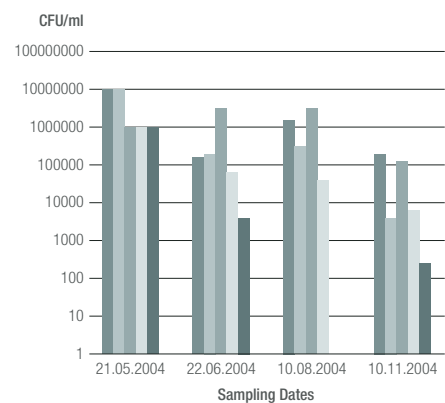
Kürsingerdamm 6

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**Bacteriological Status**



- CFU 22°C aerob
- CFU 22°C anaerob
- CFU 37°C aerob
- CFU 37°C anaerob
- CFU 37°C ENDO



1\_ Kronau-based plastics manufacturer Formtec uses a special procedure to make injection moulding tools.



2\_

2\_ Formtec managing director Andreas Czotscher: The company has completely eliminated its use of chemicals.



3\_

3\_ Only clear water runs through the cooling system.

# Clear Cooling Water

## Plastics manufacturer Formtec has replaced chemicals with Water revitalization in their cooling systems

Formtec, based in Kronau near Karlsruhe in Germany, supplies tools and manufactures plastics. Qualified technicians and engineers assemble the individual components into sophisticated injection moulds, using 3D CAD and simulation software and state-of-the-art analytical technology. In addition to the quality of the products, the company also lays great store by environmentally-friendly production methods that help conserve natural resources.

The company has two cooling systems that are needed to cool the injection moulding machines and the moulds. In order to maintain stable water conditions and ensure optimum performance, the cooling water must be well maintained and kept

at a constant temperature. Initially, normal water from the public water supply system was used. As a result, sludge and algae accumulated and the water showed high levels of bacteria, necessitating the addition of various chemicals to stabilize the cooling water. "We tried a number of chemical approaches to solve the problem, but nothing really worked," explains technical director Rüdiger Epp. "Grander Water revitalization was installed in the cooling system in 2005 and, since then, we have been able to completely eliminate the use of any and all chemicals," describes Andreas Czotscher, the company's managing director and part-owner. Within three quarters of a year, rust formation was effectively stopped and the iron content of the water dropped to zero. Maintenance requirements

are minimal and the company saves approx. 5,000 euros per year. "Previously, the cooling water was heavily polluted and contaminated with bacteria. Since we installed Grander, the water has drinking water quality. Just a while ago, I drew myself a glass and drank it," confirms Epp.

### Information

using GRANDER since 2005

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1\_ Clear, clean water from the company's cooling system

2\_ Toothbrushes made by Gerresheimer Wilden are known and used all over the world.



# Quality Drinking Water in the Cooling System

The Schönau-based production site of Swiss company Gerresheimer Wilden combats corrosion problems with Grander Water revitalization

Gerresheimer Wilden, formerly Interbros, specializes in the manufacture of innovative plastics systems. They manufacture plastic components for medical devices used in pharmaceuticals, diagnostics and medical technology as well as technical components for automotive applications and plastics systems for the Consumer HealthCare market. Among other things, the company produces a well-known brand of toothbrushes. It has its headquarters in Germany, but is also present on the international stage and is continuously expanding its capacity.

Quality assurance of the plastics products is a major priority. The company constantly strives to optimize production processes and diagnose and correct faults as soon as possible. This includes the corrosion to be found in the cooling systems of the injection moulding tools. In 2002, Grander Water revitalization was given

a test run in the cooling system used to cool the injection moulding machines and moulds. Prior to that, glycol was added to the cooling water to inhibit corrosion. "The soft water we use surely contributed to the formation of rust," muses technical engineer Stefan Bender. A stable water quality is of particular importance for the injection moulding machine, where every degree is vital for a smooth and hassle-free performance. "One year after the installation of Grander, we had the water quality in the cooling system tested by an independent institution. And lo and behold, the water in the cooling water pipe has drinking water quality," adds an enthusiastic Bender.



## Information

using GRANDER since 2002

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1\_ Machines at the Hirschmann plant are running smoothly again.

2\_ Walter Hollenstein, graduate engineer: tackling sludge build-up in the cooling system

# Cool Water

**Hirschmann Automotive, located in Rankweil in the Austrian province of Vorarlberg, relies on Grander Water revitalization to solve technical problems**

Hirschmann Automotive develops innovative solutions for the automotive connector industry. Their product range comprises various models of mechatronic components, intelligent sensor and actuator elements (displacement measuring systems), connectors, contact systems and wiring harnesses for a wide variety of applications in safety-related and high-wear areas of vehicles. Renowned car manufacturers increasingly resort to using Hirschmann's connector technologies.

The cooling system had been a problem for years, but it wasn't until 2005 that a viable solution presented itself. Grander Water revitalization was installed by way of trial to tackle the extreme sludge build-up in the cooling system and the injection moulding machines. Cooling machinery is a decisive factor in terms of pro-

duction. "The cooling water must be maintained at a steady temperature. If the temperature increases, sludge builds up and the flow of water is restricted, leading to shutdowns and equipment failures. At a series production facility, this is a disaster," states graduate engineer Walter Hollenstein, head of the Rankweil plant. Technicians were no longer able to eliminate the sludge build-up in the cooling systems by traditional measures such as filters and chemicals. Once the Grander Water revitalizing system was introduced, all residual sludge was cleaned out. "These problems have been solved for two years now and no major maintenance is required – our machines are running perfectly," Hollenstein concludes.



#### Information

using GRANDER since 2005

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using GRANDER since 1998

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1\_ Technicians Günter Jurassovits and Hans Steindl show off a pair of skis and a tennis racket, Isosport's most well-known products.

2\_ Stable cooling water prevents quality problems in production.

# Perfect Skis for World Champions

## Isosport technicians confirm the effect of Grander Water revitalization in the cooling system

Isosport is the world's leading manufacturer of ski and snowboard materials made of plastics. A subsidiary of Constantia Industries, Isosport was founded in 1969 and is now a leading supplier to the ski, snowboarding, record, automotive, construction, sport and leisure industries. They also specialize in the manufacture of strings for tennis rackets. High-grade raw materials ensure the quality of the finished products.

The evolution of skis and snowboards mirrors current trends. Products are made-to-measure with regard to firmness, surface finish and colour. On the recommendation of its managing director, who is an enthusiastic home user

of Grander, a Grander Water revitalizing system was installed in the cooling system in 1998. The cooling of the plastics moulding machines, the so-called extrusion systems, is particularly important. Here, the plastics granules are melted and forced through a nozzle, before being moulded into the appropriate shape on a calendaring machine, a system consisting of several heated and polished rolls, arranged one on top of the other, and finally cooled.

"If the cooling fails or if the heat is not optimally distributed by the cooling rolls, the plastic warps. This, in turn, means that these products are unsuitable for further processing," explains development engineer Günter Jurassovits. Prior to

the installation of Grander Water, hardness stabilizers and corrosion inhibitors had to be added to ensure constant cooling water conditions and remove algae and rust. "After installation of Grander Water revitalization, we reduced the use of chemicals by 20% and, a year later, we were able to do without chemicals altogether, since conditions in the cooling system had stabilized," announces Jurassovits. "In our experience, it is possible to stabilize the cooling water without using any kinds of chemicals," he concludes.

# Manner



Original  
Neapolitan

## Pioneering Spirit and an Experimental Attitude

Manner looks back on 15 years of experience with Grander Water revitalization

Helmut Ondricek, a technician with Manner Vienna, is considered the father of the industrial use of Grander. Way back in 1992, he was successfully experimenting in Manner's Viennese branch factory Napoli-Casali, where he had Grander units, which at the time were not yet available in series production, installed in the cooling systems for the first time. The factory had a total of 35 cooling machines, which were supplied with water from two cooling towers. Every hour, 400 m<sup>3</sup> of water circulated over two 2" devices in the bypass line. Ondricek

was looking for a way to control algae growth and slime bacteria in the cooling system, which necessitated the use of large quantities of chemicals. The results were overwhelming: "After only two weeks, we were able to completely discontinue the use of chemicals. Our investment paid off in nine months, because of the savings we made on chemicals," reports Ondricek. Not only were savings made in terms of chemicals, maintenance costs also dropped considerably by up to 70% annually. Ondricek's curiosity was piqued. "I was always

looking around for things to improve." He also entrusted the cleaning of the plastic chocolate moulds to Grander's Water revitalization. Since that time, the moulds have never become brittle, as rinsing agents and high water temperatures can now be avoided during the washing process.

At the Engineering Conference in Vienna's famed Spanish Riding School, Ondricek unveiled a secret: "Recently, we haven't used revitalized water just in our cooling system,



1\_ Secret ingredient in Manner wafers:  
As of late, Water revitalizing has been used in the production of the wafers.

2\_ Helmut Ondricek is the father of the industrial use of Grander Water revitalizing.

3\_ Custom-built Water revitalizing units in the cooling system



**Information**

using GRANDER since 1992

**Josef Manner & Comp. AG**

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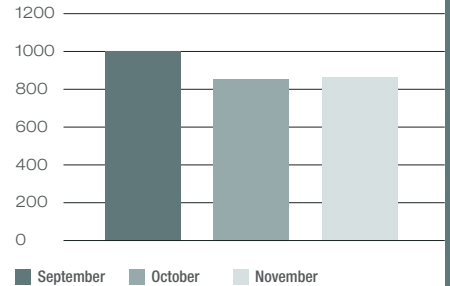
Tel.: +43 (0) 1 / 488 22-0

Fax: +43 (0) 1 / 486 21 55

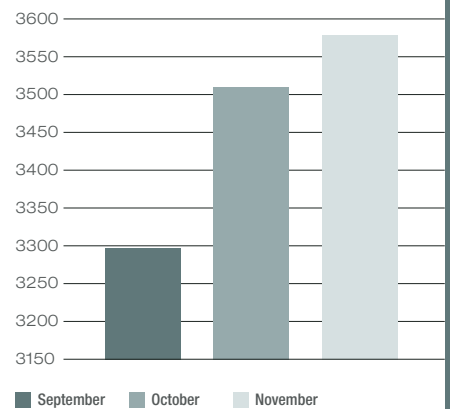
E-Mail: [j.manner@manner.com](mailto:j.manner@manner.com)

[www.manner.com](http://www.manner.com)

**Broken Wafers**



**Undamaged Wafers**



**Chart:**

The trial use of Water revitalizing in wafer production proved a success. Within three months of using the Grander Water revitalizing system, a significant reduction in broken wafers and an increase in the number of undamaged wafers was observed.

we have also successfully experimented with Grander in the production of the world-famous Manner wafers," he revealed. The confectionery company produces up to 4,000 tons of wafers every month. The amount of water contained in the dough is a crucial quality factor, because the less water there is, the crispier the wafers are.

Since the Grander Water revitalizing system was introduced, the quantity of water used and the amount of broken wafers have been

reduced and production increased. Ondricek summarizes as follows: "We have used the Grander Water revitalizing system for the past 15 years and it still works just as well as it did on the first day. It is a thoroughly sensible idea and I can only recommend Grander to each and everybody."





1\_ Molten metal is poured from an electric arc furnace.

2\_ Site supervisor Ludwig Jernej is convinced of the effectiveness of Grander Water revitalization.

3\_ Corroded heating pipes and limescale in pipes are a thing of the past.

# Soft Water

## Successful deployment of Grander Water revitalization at the machine factory “Maschinenfabrik Liezen und Gießerei GesmbH”

Corroded heating pipes and limescale were the main problems facing the technicians at “Maschinenfabrik Liezen und Gießerei GesmbH”. Liezen has a long tradition in metal working, and hence the company can call on over fifty years of experience in processing technology, machine construction and metal casting.

In order to deal with the rust and limescale that built up in the cooling system, the management turned to Grander. “Every two to three months, sludge and dirt accumulated in the heating pipes, leading to rust and, inevitably, to burst pipes,” explains site supervisor Ludwig Jernej. Whenever damage occurred, the technician had to install an emergency bypass pipe, so that the system could be repaired. Although Grander Water revitalization is not intended to eliminate limescale problems, they gave it a go. The system has been in use for one-and-a-half years now, with the first successes being report-

ed after only two months. The Grander water revitalizing system was installed directly in the main water line and all the process water was revitalized alongside the drinking and cooling water. Site supervisor Jernej is amazed with the results: “I can’t really explain what happened, but the number of burst pipes has been significantly reduced since then, the shower heads aren’t clogged with limescale anymore and the water feels much softer and gentler on the skin.” Measurements taken confirm this result: The iron content of the water has dropped from 25.95 mg/l to 0.957 mg/l. Foreman Hubert Kettner confirms that “there is practically no more iron in the water.”

**Chart:**

During the observation period from February to November 2006, the iron content dropped from 25.95 mg/l to 0.957 mg/l.

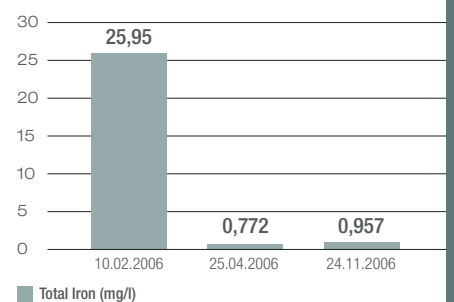
**Information**

using GRANDER since 2005

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**Iron Content of Water**





1\_ Vorarlberger Nachrichten: brighter colours and sharper images

2\_ The Austrian flagship company produces 55 print media.



**Information**

using GRANDER since 2000

**Vorarlberger Medienhaus**

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[www.medienhaus.at](http://www.medienhaus.at)

# In Black and White

## The Austrian publishing company “Vorarlberger Medienhaus” uses Water revitalization in printing

55 different newspapers are printed by Medienhaus in Schwarzach every month. The media company operates internet portals and regional radio stations in Austria, Hungary and Rumania. The company sees journalistic independence and detailed research as two of the main quality characteristics of its leading print medium, the Vorarlberger Nachrichten (VN). Great care is also given to layout and design, production and printing. The company’s management strives to provide its readers, listeners and internet users with useful regional information and quality entertainment. Products and production are constantly being improved and the company is also committed to staying one step ahead in terms of technology.

“Vorarlberger Medienhaus is the only publishing company in Austria who meets the rigid standards for low-emission printing and who has been awarded the Eco-label by the Austrian Ministry of the Environment,” the company reveals on its website. In 2006, Vorarlberger Nachrichten was voted Newspaper of the Year, from over 18,000 newspapers worldwide. The jury were impressed by journalistic performance, print quality, design, content and profitability. “I’m convinced that the Grander Water revitalizing system has a part in our success,” adds Wilfried Übelherr, the company’s technical director. The Grander system was first deployed by the Vorarlberger Medienhaus in 2000, when a test

run was performed using the offset printing machine. “In offset printing, water quality, pH, conductivity and surface tension are very important. During the printing process, they have a major influence on the brightness of the colours and the sharpness and crispness of the images,” explains Übelherr. Since the Water revitalization was introduced, the quality of the print products has markedly increased. The printing process is more stable and fewer corrections are necessary with regard to colour and flow control. The technical director confirms that “Grander has given our company a considerable technical advantage.”



# A Revitalized Brewing Culture

The Memminger Brewery has improved the quality of its beers with Grander Water revitalization

1\_ Beer tastes rounder, smoother and more intense and is more immediately drinkable.

2\_ Master brewer and company representative Wolfgang Kesselschläger: The Grander Water revitalizing system is a very good idea.

Hops, malt, yeast and water are the sole ingredients of beer brewed in accordance with the German Beer Purity Law. Since beer is 90% water, water quality has a decisive influence on the taste of the beer. The basic idea of the Memminger Brewery was to revitalize the water using Grander, and thus improve the twenty specialty beers and alcohol-free beverages they produce. Since the spring of 2006, the Grander Water revitalizing system has been in use to the company's complete satisfaction.

After using Grander water, certified master brewer and company representative Wolfgang Kesselschläger noticed changes in the taste of the beer. "The beer tastes rounder, smoother and more intense." Fermentation time has been reduced by one day and, according to the expert, the carbon dioxide in the beer is of a "very light, sparkling quality", making the beer more immediately drinkable.

The privately-owned brewery uses Grander in many ways. "Everything to do with water is connected to the Grander Water revitalizing system, i.e. the cleaning, heating and drinking water systems and beer production," explains Kesselschläger. Energy savings were achieved by reducing the flow temperature of the heating system and far fewer additives are needed in the cooling system. Every year, 10% fewer acids and alkalis are required to clean the tanks. In addition, there has been a 2.5 ton reduction in the amount of chlorine used every year in alkaline tank cleaning. "I believe the Grander Water revitalizing system to be a very effective and efficient method. Our company has been able to make significant savings in terms of energy and cleaning costs," reveals Kesselschläger.



## Information

using GRANDER since 2006

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using GRANDER since 2005

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# Water for Humans and Machines

## Excellent quality of cooling lubricants recorded by technicians of the metal and plastics manufacturing company MKE in Heidenreichstein

The prestigious “Bentley” lighter has made this Austrian company widely known. They also produce specialty lighters for such status labels as Cartier and Yves Saint Laurent, and already, collectors will pay premium prices for such items. The metal and plastics manufacturing company MKE is one of only three companies in Europe still involved with the development of these specialty lighters. The company’s field of activity ranges from small metal and plastic parts to dental implants to pressure-reducing valves weighing up to 20 tons. Their products include fire hydrants, valves and fittings, and components and systems for the railway sector and manufacturers of photographic and medical products.

In 2005, positive experiences at home persuaded the company’s management to test the Grander Water revitalizing system at the company. In a first step, employees were treated to Water revitalization from a Grander drinking

fountain, a “gift” that was readily accepted by all. The progression was only natural. Could revitalized water also be used effectively in production? “In the summer, when it’s very hot, the cooling water turned bad after three months, smelled horrible and was no longer usable,” remembers Christian Schleritzko, chairman of the council of employees, training officer and safety technician.

The smell of the production water was unbearable and contact would sometimes cause skin irritation. The machines had to be emptied, flushed and refilled in relatively short intervals. By introducing Grander, MKE wanted to stabilize cooling water quality in the system and get rid of smell-inducing bacteria.

“At first, we were a bit skeptical of Grander Water revitalization, but the smell has improved and the cooling lubricant is not as aggressive

on the skin as before. We don’t know how it happens, but Grander Water revitalization really does work,” states a very satisfied Christian Schleritzko.

1\_ Christian Schleritzko: superior quality of cooling lubricants

2\_ MKE: red fire hydrants for the city of Vienna



1\_



2\_

2\_ In Bangkok, water is generally not in short supply, but high-quality water is hard to come by.



3\_

3\_ Aloe Vera Cleaning is now much more easier



4\_

4\_ Every 3 weeks the swimming pool had to be cleaned by divers, which is now not necessary any more.

Every child in Bangkok knows the Tipco Tower, the imposing skyscraper on Rama 6 Road, but hardly anyone knows that it is equipped with Grander Water revitalizing from basement to attic, including the publicly-accessible swimming pool. The brains behind the idea was Mrs. Anurat Tiamtan, chairwoman of the Tipco Group, who came across Grander Water revitalization on the internet and tried it out at home. She found that the water she had used throughout her life had changed.

Based on these experiences, Anurat Tiamtan decided to equip the company's headquarters with Water revitalizing systems. The use of chemicals could be reduced, and maintenance and cleaning requirements decreased. The amount of chlorine in the swimming pool was reduced by half. The elimination of the chlorine smell in the swimming pool and the adjoining fitness center was greatly appreciated. Swimming pool manageress Suthikan Phothiphat is now able to do without the divers, who regularly had to re-

move slime and algae from the pool walls.

Tipco is one of the largest food groups in Thailand and teamed up in a joint venture with the Japanese Suntory Group in September 2007. In 1976, Tipco started out as a small pineapple factory in Muang Prachuabkirikhan; today it is one of the largest producers of pineapple, tropical fruits, aloe vera and juices, etc. The factory, located 300 km south of Bangkok, employs up to 6,000 workers. The familiar reactions that



1\_ Tipco Foods preparing pineapple, tropical fruits and aloe vera

# ...and in the Big Wide World

Water revitalizing cleanses aloe vera plants, steamboilers and the swimming pool at the Tipco Tower in Thailand



5\_ Mrs. Anurat Tiamtan, chairlady of the Tipco Group.  
Mrs. Anurat Tiamtan enjoys Grander effects in all aspects of using water throughout the Tower.

follow the use of Grander Water were also seen here. Limescale build-up in the steam boilers is considerably reduced and pipes are easier to clean even without chemicals. The water made the washing of aloe vera much easier. It reduces the build-up of slime and scale on the processing equipments. And also a number of other positive reactions were observed. Even though she is very happy with all the technical results achieved, Anurat Tiamtan admits to being especially impressed by one particular

observation: "Since the fountain in front of the company's headquarters is also supplied with Water revitalizing, the stray dogs in the neighborhood come by on a regular basis to drink and to bathe in the water," she states happily. "There was this scruffy, disheveled dog and I've noticed that its sores have completely healed and its fur is now as soft as silk and has no smell anymore."

#### Information

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E-Mail: [info@tipco.net](mailto:info@tipco.net)  
[www.tipco.net](http://www.tipco.net)

# Grander DVDs

## Clear Water for Industry

This DVD will provide you with additional information about the companies featured in this brochure. Leading technicians describe their individual experiences with Grander Water revitalizing at their companies.

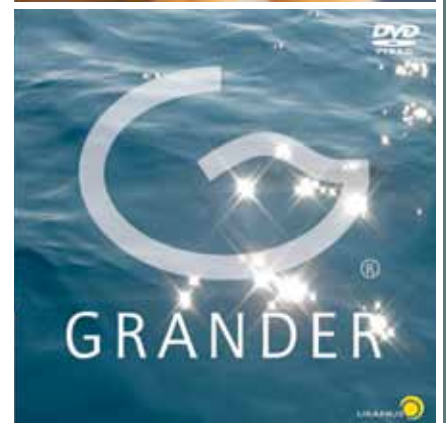
DVD Languages: German and English



## Grander – Experiences

This DVD documents novel and traditional applications. Particular emphasis is placed on the advantages of Grander Water revitalizing in baking and cereal processing.

DVD Languages: German, English, French, Italian and Spanish



## Main Distributor Europe

### **U.V.O. VERTRIEBS GMBH**

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## Main Distributor USA / Canada

### **WATER REVITALIZATION LTD.**

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## Main Distributor South-East-Asia/Pacific

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