

Compost!



Serving the children of the world

The big cleanup

"Let's make Compost" overseas p. 4-5

Innovation

Efficient composting equipment p. 6-8

Come and see Baden-Baden

First-hand information pays off p. 10-11

Prize competition
Win a visit to the
2004 Oktoberfest
p. 13

AEROFIX® Channels

for controlled aeration in composting plants



In short

- channels 3 m long made of HD-PE are easy to handle
- high resistant to corrosive materials
- high resistant ductile iron cover 0,75 m length
- shorten the rotting up to 4 – 6 weeks
- simple mounting of the matched system on the side
- prevents offensive smell
- to refit in existing plants anytime



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Better service

Exclusive sales partner

Since 2003, COMP-ANY GmbH of Grünbach/Germany has been in charge of global sales and distribution for composting services provided by UTV AG. This includes the planning and design of complete facilities, related consulting, technology sales and leasing, plant and equipment financing, and handling inquiries relating to investments and operator models. As a supplier of complete systems, COMP-ANY is your ideal consultant when it comes to membrane-covered, oxygen-controlled clamps with diffused aeration. These can be used to compost nearly every type of organic waste including plant cuttings, biowaste, biosolids, household and residual garbage, and organic industrial waste. Apart from composting, the firm also deals with such processes as biological drying and soil remediation.

COMP-ANY GmbH
Graf-Seinsheim-Strasse 16
85461 Grünbach/Germany

“We make compost and would like to pass on to others the expertise acquired in the process, as well as the methods we have developed and use ourselves.”

Thomas Schlien and Franz Vogel

Due to a massive growth in business volume, UTVKompostierungstechnik was converted into an joint-stock company (UTV AG) in 2003.

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“Let’s make Compost” overseas:

The big cleanup



Sophisticated technology – clamp with mobile aeration equipment and Gore cover for rapid composting

Whereas in Europe the term waste disposal has always been associated with environmental protection, the emphasis in North America is mainly on the financial aspect. In the land of unlimited opportunity, making money from the rapid and efficient composting of green waste is a new business idea that is now slowly asserting itself. Jeffrey K., mayor of a small town, contacted UTV AG for tentative advice on the recommendation of a colleague.

Following a first phone call, the specialists from the Black Forest sent a questionnaire which inquired about local conditions. When this had been returned, Jeffrey was only too glad to accept an invitation to see a composting plant in operation at Baden-Baden. As he put it, “Service in Germany was excellent, I had ample opportunity to exchange views with UTV experts and ask

questions, and they gave me all the explanations I wanted. I was particularly impressed by the care they took of me after business hours. For example, I saw Baden-Baden’s world-famous casino and the Caracalla thermae. Over a glass of local wine, we discussed technical details in a relaxed atmosphere, which made me feel as if I was among really good friends.”

Service on site

Shortly after the visit to the Black Forest, an expert from UTV AG inspected the proposed site overseas and drew up a list of technical requirements. In the words of Thomas Schlien, “The idea for the time being was to define a goal together with the client, i.e. to specify what the plant should be capable of and how to reach that target most effec-

UTV in North America



tively. Everything must be perfect because we want the customer to be satisfied in all respects." Later, the town council unanimously decided to award the job to UTV AG.

Painstaking execution

When detailed planning had been completed, the site was covered with concrete, followed by the delivery of winding machines for the cover, aeration systems, computers and software. All of this under the supervision of UTV experts who were also on hand to oversee the manual installation of equipment which took almost four weeks. The facility basically incorporates a GORE™ Cover three-ply laminate consisting of UV-stable textile fabrics and a water-tight breathing membrane, and a computer-controlled aeration system for injecting oxygen at an optimal rate. UTV has perfected this remote-controlled process. When erection was finished, the client's operators were trained in a crash course and then conducted a first trial run involving intensive rotting in a smaller test clamp. At the end of the trial period, UTV experts again

checked the results on site and then handed over the plant to the town. Addressing a festive meeting on the new site, Jeffrey K. said: "We were satisfied in all respects with the excellent job Umwelttechnik Vogel has done, and with their professionalism in processing and executing the order. UTV's system stands out because it is easy to handle, extremely flexible and creates no odors. The people of this town are equally enthusiastic about the new efficient way of composting plant cuttings. Umwelttechnik Vogel as a company is totally recommendable." The sophisticated composting systems developed by UTV have now given 10 years of efficient and reliable service worldwide. Clients may expect a high-grade product because, in the words of Franz Vogel who also owns composting plants at Baden-Baden, Oberhausen-Rheinhausen and Bühl in Germany, "there is of course a warranty on all equipment and they have free use of a hotline for inquiries over a period of 10 years. If necessary, we will pay them a visit because providing a first-rate service is essential to us."

Umwelttechnik Vogel has so far installed three facilities in North America



UTV composting plant in the U.S. - installation of mobile cover winding machine



Concreting the site for a UTV composting plant in the U.S.



UTV composting plant in Canada - installation of aerating equipment by local contractors is supervised by UTV

Innovation

UTV consistently improves its range of efficient composting equipment

Remote-controlled cover winding machine for clamps

NEW – one-man operated remote-controlled cover winding machine



Remote-controlled cover winding machine

With a remote-controlled cover winding machine, a single operator can completely enclose a composting clamp. The basic unit is designed for widths of 6 and 13m, a 24m machine is on the drawing board. Framed in rugged hot galvanized steelwork, each unit has carrier and guide idlers which run in heavy-duty ball bearings, as does the lower guide for the top hat rail and rolling truck. The switch cabinet, with heating and ventilation, is made of special steel. The winding roller is driven from a spur wheel back-gear motor complete with a frequency converter for 25 rpm and an automatic brake. Available for stationary and mobile operation.

GORE™ clamp covers

Working with GORE™Cover is nearly as convenient as composting in an open clamp, and just as reliable and approvable as using enclosed high-tech systems. The material is thus ideal for making a high-quality product from biowaste and green waste. The cover consists of a specially developed GORE-TEX® membrane laminated between two high-strength PE plies. GORE™Cover does much more than just enclose the waste because its pore structure makes controlled treatment possible. The membranes not only keep out rainwater but also permit the discharge of CO₂ which is produced during rotting. This protective function, combined with automatic ventilation, optimizes the process. A sufficient oxygen supply and diffused aeration to control the reaction temperature make sure that no odors escape into the open. Germs are also kept within the system.



GORE™Cover improves rotting, meets requirements for authority approval and insures efficient and controlled composting

AEROFIX aeration channels Channel base now made of HD-PE

AEROFIX-Channels provide controlled and variable aeration to shorten rotting times from several months to between 4 and 6 weeks. Additionally the drainage channel is draining seepage water. AEROFIX-Channels are stationary systems with high-quality ductile iron covers according to DIN-19580 for max. loads of 600 kN. The latest product is a HD-PE channel base with an overall length of 3m. Made of HD-PE, it is highly resistant to aggressive materials and has an extremely long life. The light-weight channels are easy to lay and require a minimum of sealing work because there is a safety-joint only every 3m. The ductile iron covers come in lengths of 0.75m which makes them easier to handle and seal at the safety-joints. The hat shape cross section facilitates surface coating.

The channels are easy to rinse for cleaning. Oxygen probes and computer control combine to keep the oxygen content at the same level during



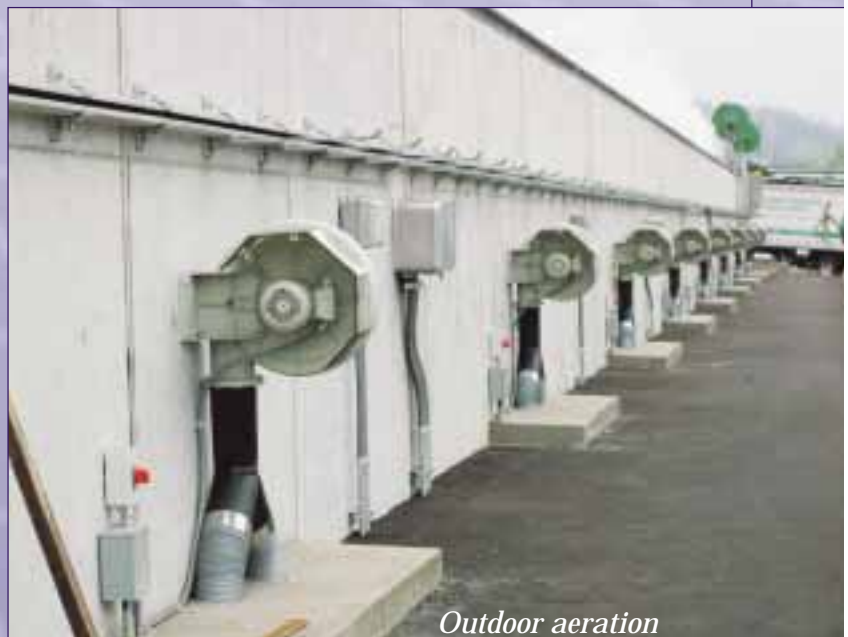
AEROFIX-Channels for aerating and draining of composting plants do not need heavy-weight concrete

intensive rotting. Existing plants can be easily retrofitted with AEROFIX channels. The system has been patented and can be seen at work in a number of plants. For more details contact: Hauraton GmbH & Co KG
phone: +49 7222 9580
E-Mail: marketing@hauraton.com

Stationary clamp aeration

Low-maintenance and wear-resistant

Stationary outdoor aeration has markedly improved over recent years, with air pressures and volumes to match any clamp size. Components have been optimized for maximum efficiency and reliability. Wall aeration systems supply oxygen to microorganisms in the composting material. An outdoor version that has now become available uses a stainless steel shaft and Teflon bearing thus reducing maintenance and wear to a minimum. Power consumption, and resulting pollution, is low.



Outdoor aeration

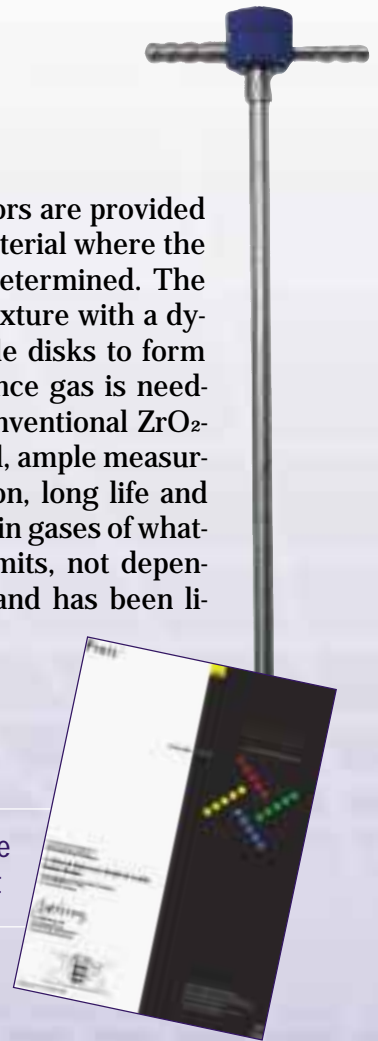
Self-regulating and fault protected
Dynamic sensors



Dynamic sensor

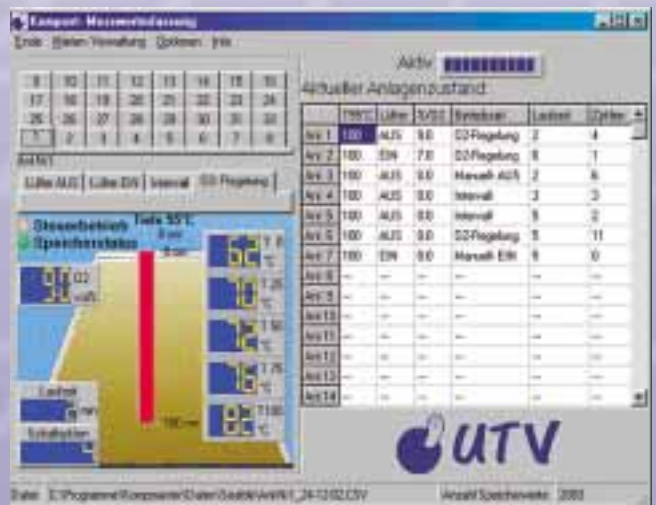
Dynamic temperature and oxygen sensors are provided exactly at points in the composting material where the optimal oxygen concentration has to be determined. The MF010-O directly measures O₂ in a gas mixture with a dynamic method using two zirconium dioxide disks to form a hermetically sealed chamber. No reference gas is needed, which gives major advantages over conventional ZrO₂-based sensors such as a linear output signal, ample measuring range, easy calibration, error protection, long life and low power consumption. The sensor works in gases of whatever composition and is, within certain limits, not dependent on temperature. It is TÜV certified and has been licensed for the U.S. market.

J. Dittrich Electronic GmbH & Co.KG won the 2002 Innovation Award of the state of Baden-Württemberg for error-proof oxygen measurement



Kompmaster for composting control

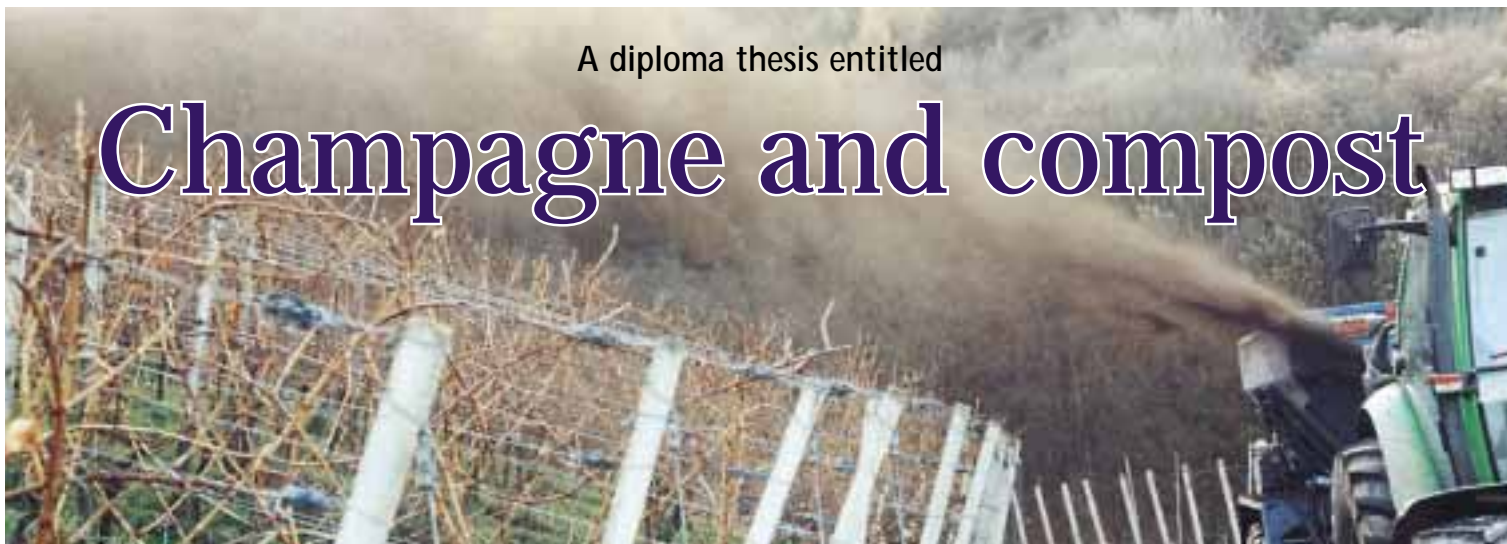
Kompmaster from EHS uses temperature and oxygen sensors to control composting and at the same time prints out a process log. A built-in buffered memory collects and stores relevant composting data. Kompmaster controllers monitor rotting, record temperatures and oxygen contents and may be used in single operation or networks with up to 32 controllers. Once it has been preset, the system no longer depends on a control computer which is then limited to data visualization and logging. Kompmaster PC software monitors composting and visualizes data gathered from one or more clamps. It also generates required settings. An optional system, TeleKomp, gives you telecontrol of several composting plants, including on the Internet.



Kompmaster PC software in action

A diploma thesis entitled

Champagne and compost



Blowing out compost over grapevines – organic fertilization is gaining ground

After neglecting organic fertilization for years, wine growers have recently changed their minds. Adding compost to vineyard soils not only enhances their humus and nitrogen contents but also results in better yields and aeration. At the same time, soils absorb heat more readily, the crumb structure becomes more stable, the sorption capacity increases, and the nutrient supply, soil life, tillage and load bearing capacity are improved.

Volker Maier, a wine grower, has dealt with the effects of organic fertilization on vineyards in a diploma thesis.



A number of wine growers in the Champagne region use compost for fertilization

In order to obtain meaningful results, he conducted a whole series of measurements which can be summarized as follows:

- Organic compost clearly improves nutrient and humus contents
- Soil acidification is delayed as shown by pH readings
- Organic compost which is subject to strict quality control leaves heavy metal levels unchanged
- Compost positively affects the pore volume and availability of water
- Wood weight markedly increases in areas treated with compost



The author Volker Maier

The complete diploma thesis in German and English is available from UTV AG, Am Alten Römerpfad 2, D-76534 Baden-Baden; info@kompostanlagen.de

First-hand information pays off

Come and see Baden-Baden



UTV not only has many years of experience with composting but is also a successful user of the systems it distributes and installs. So why not come to Baden-Baden and see for yourself how aerobic composting accelerates biodegradation? The best place to do so is the site of Vogel Kompost which is ideally equipped to demonstrate the advantages of components and systems that have now become standard in many towns and villages. Of course, we would also like to show you sights such as the famous casino, festival theater, parks and gardens, and enjoy the local cuisine with you.

I look forward to your visit.

Sincerely yours,
Franz Vogel



Baden-Baden



Festival hall



Casino



Caracalla thermae



Sanitarium

A direct line to customers

Marginal notes

A "direct line" to clients and customer partnership are extremely important to UTV in the ongoing exchange about all aspects of the composting systems we supply. After-sales service therefore is not limited to business as such but also includes team building exercises and other types of socializing that are greatly enjoyed by most participants.

USA team training



This took place at UTV's facilities in Baden-Baden. Taking part were Dave L. Bader (consulting engr.), Franz Vogel, Barbara Zankl (GORE), Alvin Starkenberg (GET, UTV client) (from left to right)



Horseracing

Visitors to UTV at the Iffezheim racecourse which, naturally, is fertilized with UTV compost making for a specially green turf

Champagne!

Celebrating the startup of a composting plant in the U.S. with a drink of champagne made from grapes grown on a compost-fertilized vineyard. (front) Jerry Barrlett, General Manager



Shrove Tuesday



Celebrating carnival at Baden-Baden's festival hall with Ron Westmoreland as part of a team building exercise in Germany



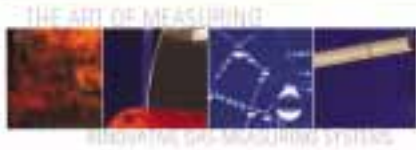
Leisure pursuits

Excursion with Ron Westmoreland during a break when building the plant in Canada – a welcome change for everybody

Wine tasting

Visiting a vineyard that grows wine on compost soil with Jim Lapp and Scott Gamble (Canada), and Oley Sheremeta of SEC (UTV sales partner)





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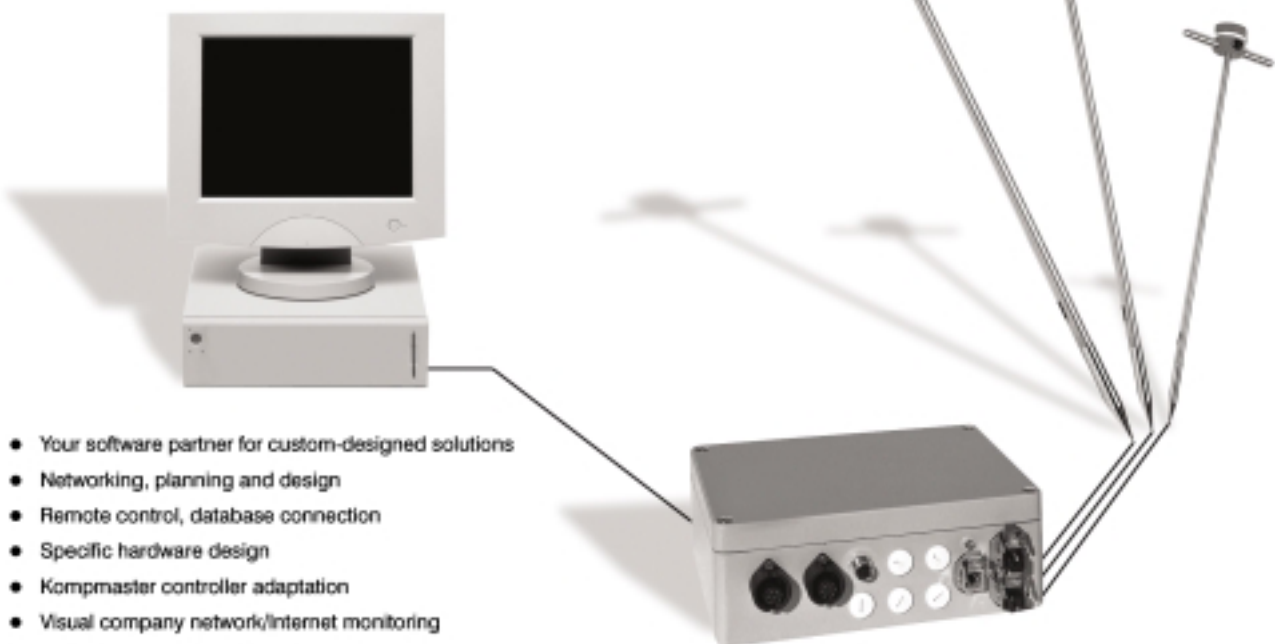
Oxygen and gas measuring systems from J. Dittrich

- We supply measuring systems for monitoring explosive and toxic gases
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Hard/software development



- Your software partner for custom-designed solutions
- Networking, planning and design
- Remote control, database connection
- Specific hardware design
- Kompmaster controller adaptation
- Visual company network/Internet monitoring

The UTV management team



(from left to right) Christian Grimm, project officer for France/Spain, Franz Vogel, founder of the company, Thomas Schlien, project manager, Michael Durban, logistics manager

UTV's success story

Umwelttechnik Vogel was founded at Baden-Baden/Germany in 1996.

Franz Vogel and his team of experts secured their first order, residual waste stabilization, from Gore. Before tackling it, they had to make a couple of investments, a risk which they took because they believed in their own potential. When the "Baden-Baden model" had proven its worth, inquiries for composting plants started coming in from all parts

of the globe and the team decided to use their know-how in a company of their own. To this day, Umwelttechnik Vogel has erected over 40 plants in such diverse countries as Israel, Syria, Ireland, Britain, Switzerland, France, Belgium, Italy, Spain, the United States, Canada, Hungary and Finland. Future projects in the drive to optimize worldwide compost production include setting up a number of foreign agencies so that clients may turn to competent local partners.

UTV prize competition

Take part and win one of these prizes

1. A visit to the 2004 Oktoberfest including free travel to Munich, accomodation and expenses
2. A jacket of your choice made by GORE™
- 3.-10. A bottle of champagne made from grapes grown on compost from one of UTV's plants

All you have to do is answer this question:

On which page of UTV's web site www.kompostanlagen.de can you find a link to our web cam?



Web cam view

Send your answer by email to gewinnspiel@kompostanlagen.de no later than Dec. 31, 2003

Good luck!

**Development and sale of
machinery and equipment**



Remote-controlled cover winding machine



Mobile cover winding machine



Stationary cover winding machine

**Your competent partner
for winding equipment**

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E-Mail: goetz@gotz-online.de

Events not to be missed in 2003/04

BIOTECHNICA Hanover

This takes place from **Oct. 7 – 9, 2003** in Hanover/Germany and presents all the latest technical applications from bioengineering including environmental technology and the service sector
Info at www.biotechnica.de

Deutsche Nachhaltigkeitsmesse

A tradeshow to be held at Beverungen/Germany from **Oct. 10 – 12, 2003** and devoted to renewable energies, sustainable regional development, forestry and the lumbering industry
Info at www.nachhaltigkeitsmesse.de, www.beverungen.de

Kommunale 2003

Held at Nuremberg/Germany from **Oct. 15 – 16, 2003**, this trade fair features disposal services, recycling, renewable energies, etc.
Info at www.kommunale.de, www.bay-gemeindetag.de

7th International Trade Fair for Environmental Technology

This tradeshow takes place in Metz/France from April 20 - 22, 2004 and features the latest developments in the field.
Info at www.eco-industries.com



UTV's stand at a tradeshow

let's make **Compost!**

Produced by UTV AG

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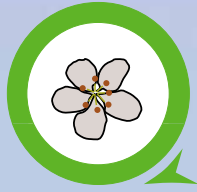
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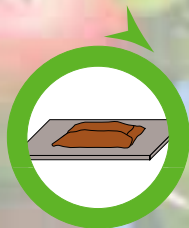
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COMPANY



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- > Catering Waste
- > Municipal Solid Waste
- > Commercial Organic Waste

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- > Mechanical Biological Treatment
- > Biological Remediation
- > Biological Drying

COMP-ANY GmbH

GORE™ COVER SYSTEM

ALSO IN MSW AND LANDFILL REMEDIATION:



HIGH TECH. LOW WASTE.



Site capacity: > 100.000 t/y

Aim: Reduction of the organic content; dry stabilization

After the treatment: Separation

Final destination: treated screened material as landfill cover. Light fraction, wrapped, stored and incinerated.



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