



Applied Physics of Life.

News 2007/2008

# HILLER

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Separation technology

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## The 4,000th decanter + 35 years of HILLER®



### Anniversary Edition!

35 years of HILLER® full of visions and spirit of research are behind us, 4,000 HILLER® decanter centrifuges have been built in that time, and the Vilsbiburg staff now numbers about 160.

Today our company is one of the leading manufacturers of decanter centrifuges for all fields of separation technology worldwide. Our centrifuges are well-established in mining, in off-shore activities, in the petrochemical, chemical, and

pharmaceutical food and machine-building industries, as well as in the fields of environment regarding waste water and oil sludge processing.

Special emphasis is placed on our tremendous success regarding the application of centrifuges for the extraction of plant and olive oil using 2-phase but also 3-phase technology.

### „Spanish October-Fest“ at HILLER®

In 2006 there were reasons galore for celebrating at HILLER® - the founding of the company 35 years ago, the 4,000th decanter, and the 500th olive oil machine. Since we are quite proud of our success in the olive market, especially in Spain, the management decided to invite our Spanish partners to Vilsbiburg.



HILLER® sent out the invitations, and at a weekend in October 120 people from Centrifugacion Alemana arrived in Vilsbiburg. To introduce Bavarian culture to the guests from Spain a miniature 'October-Fest' was arranged at the premises on Saturday. Hiller employees and their families partied hilariously together with their Spanish guests to the music of a live band in the beer tent until late at night.



To also show the guests a little of the marvelous Bavarian countryside a trip to Prien on Lake Chiemsee was arranged for Sunday. In weather that couldn't have been any nicer the pleasure boat 'Irmgard' took them on a cruise around the lake with a short stopover at 'Nuns' Island'. At the end everybody agreed - what a wonderful weekend.



## Decanter centrifuges and Hydraulic drives



## New **HILLER**® laboratory

### Bad Fallingbostel

The ever-increasing demands and requirements to us as manufacturers of high-performance centrifuges caused us to open another R & D lab in Bad Fallingbostel.

In addition to the labs at our Vilsbiburg headquarters we now have a second lab for the sometimes difficult analyses of sludges and suspensions from communal, industrial, and bio-fermentation facilities.

For our customers, this means short-term reaction to the tasks they assign to us. In addition, we can independently analyze delicate products at two facilities at the same time and thus almost completely eliminate measuring errors.



### The following analyses are carried out:

- Analyses of sludges and suspensions with regard to undissolved substances
- Determination of dissolved substances
- Further analyses of pH, index, CST, sand content, and partly chloride content, etc.
- Annealing residues
- Determination of optimal flocculants already prior to the installation / execution of the test by all well-known manufacturers
- Owing to the enhancements of our beaker centrifuge we are capable of informing the customer of quite precise values regarding the expected discharge of a machine.
- Suspensions for special applications can be prepared on-site.

We produce a detailed report for each analysis, which is then handed over to the client.

If you are interested please contact Mr. Michael Wielicki on the phone **(0049 5072770741)** or by e-mail ([wielicki@hillerzentri.de](mailto:wielicki@hillerzentri.de)).

## Biodiesel

### Further increasing demand for **HILLER**® Biodiesel Decanters

The number and capacities of biodiesel decanters is rapidly increasing worldwide. A market tailored downright to **HILLER**®.

Be it decanters for purifying fresh plant oils, 3-phase decanters for the processing of recycled oils and fats, or machinery for the actual production process **HILLER**® can offer solutions for everything.

The latest examples are explosion-proof centrifuges for the processing of residues from biodiesel production in Germany, several explosion-proof 3-phase centrifuges for Thailand, and a decanter for purifying of rapeseed oil at a new biodiesel plant in Bavaria.



## Tunneling at the Brenner Pass and in Shanghai

Since we started focussing on super-fine separation in tunneling, more and more so-called hydro-shield machines have been applied if geology and rock formation don't allow for an economical dry removal of the cuttings.

Owing to decades of experience in vertical off-shore drilling for the exploration of gas and crude oil resources **HILLER**® have the machine and process technologies at their disposal to completely cover this field of tunneling where big decanters with high quantities of solid matter and considerable torque for conveying such matter are required.

We have just landed some orders for the realization of larger-size projects.

Within the restructuring of the traffic over the **Brenner Pass** as 'North-South axis' over the Alps the railroad tunnel project for the transportation of trucks (to get them off the road) has been worked on for years.

The first two smaller peripheral and connecting tunnel projects have been finished, and the mining for the first construction stage of the Brenner Railroad Tunnel will start in July this year.

The German **Herrenknecht Group** will supply the mining machinery whereas **HILLER**® will supply 4 large **DP 84 decanter** units which will take care of processing the slurry by means of super-fine matter separation and dewatering for the next 2 years.

## INA refinery in Rijeka, Croatia decides in favor of **HILLER**®



Reprocessing of manifold side and residue materials containing mineral oil which accrue from all phases of producing, transporting, storing, and refining oil are experiencing a boom owing to the high prices of crude oil. Apart from these economic aspects environmental aspects are important factors, too.

With their 2 and 3-phase decanters **HILLER**® can optimally attend to the market with all its facets. Most important is their capability to tailor the machinery to the relevant process, production, and environmental conditions, e.g. with regard



### Transrapid follow-up project in Shanghai

With this project **HILLER**® also succeeded in contributing their separation technology for the second construction phase, the extension of the Transrapid line, which a Chinese consortium assigned to the **MAGLEV**.

The entire separation system was ordered by the **Schauenburg Group**, one of our long-time partners.

It comprises 3 big **HILLER**® **DP 84 decanter** units ready for use which are being installed at the moment and will go into service in spring this year.

to choice of materials and wear or explosion protection. Another outstanding feature of **HILLER**®'s waste oil decanters is the possibility to extract liquid by means of special peeler disk which can be externally readjusted during operation.

This safeguards optimum product quality and operational flexibility.

Therefore, the Croatian waste-oil processor **INA** has decided in favor of **HILLER**® for its refinery in Rijeka. Slop oil from the refining process and bottom residues from the crude oil tanks will be reprocessed there.

In co-operation with a Croatian partner **HILLER**® will install a complete turn-key facility. It includes all components from receiving and initial processing of the oil sludge to its conditioning and processing by means of decanters and separators.

Operation start-up will be in July, 2007.

## Glycerin reprocessing:

In the field of biodiesel production, which has shown a permanent growth over the past years, **HILLER**® was able to install centrifuges for the individual process stages in several facilities worldwide. The requirements in the individual biodiesel plants are distinguished by different demands which mainly depend on the origin of the raw material. When unrefined plant oil is used the so-called 'degumming', i.e. the removal of organic and dissolved fibrils, is of great importance before the unprocessed oil gets to the esterification unit on its way to the biodiesel production system.

During degumming as well as during the actual biodiesel production several by-products accrue. These impurities have first to be removed by means of a liquid-liquid-separation, and later the RME (raw ethyl-ester) must be removed from the biofuel. To do so, separators are used which have been developed and built by **HILLER**® in co-operation with **Frautech** as partner.

These separators are individually applied as collectors of solid materials as well as automatic sludge removers with programmed partial desludging systems to achieve a maximum separation level at a minimum loss of raw materials.



The oil processing sequence brings about glycerin processing, which contributes to an increase in value creation of the entire biodiesel production plant, and which, depending on the requirements profile, produces marketable industrial glycerin or even pharmaceutical glycerin.

For this, gas-tight 3-phase decanters by **HILLER**® are used that comply with all regulations of the ATEX specifications.

While **HILLER**® used to focus on the producers of biodiesel installing decanters in their glycerin processing units during the first years, they have meanwhile installed the first centrifuges in such units which are used for collecting waste residues from smaller biodiesel producers and reprocessing those accordingly.

Early this year one of these units with **HILLER**® decanter technology started up production in Stassfurt in Brandenburg.

## Co-operation with Kufferath in paper and environment industries



The **Andreas Kufferath GmbH & Co. KG** have entered a co-operation contract with **HILLER**®.

**HILLER**® will supply **Kufferath** with high-performance centrifuges which are mainly distributed by them under their own name to paper and environment industries.

By incorporating centrifuges into their portfolio **Kufferath** are going to strengthen their market position in fields which their core products, e.g. worm extruders, could cover only insufficiently or not at all. These fields are, for example, the high-grade dewatering of sludges from the paper industry with a high content of slurry or biological excess sludge, or the follow-up processing of filtrates from the dewatering of fermented biological waste.

After a competitive selection process **Kufferath** chose **HILLER**® as their partner because of our flexibility, quality, and reasonable pricing - a partner that

corresponded with their own high demands as to trust and product quality.





# PROJECTS FAIRS

## HILLER® DecaFood



Extraction of apple and pear juice with Hiller DecaFood decanters

What's new in the **DecaFood** sector?

- The Weihenstephan Research Institute carried out several documented large-scale tests.
- The apple juice decanter yielded very good results for pear juice, too, without any technical alterations.
- The extracted pear juice exceeded all expectations. Its smell and taste are fruit-typical, and its clouding is very stable.
- During a long-term test at Rottaler Fruit Juices with about 1000 tons of fruit the **HILLER® decanter** even won the direct comparison with other modern extracting systems.
- The foam formation at the end of the production process could be minimized owing to some technical improvements.



When comparing the space required by piston presses with our centrifuge the difference becomes obvious right away.

- The quality of the juice exceeded the expectations of all experts participating in this test.
- The DF series is offered at 3 performance levels at the moment the **DF 45, the DF 54, and the DF 66** which can process quantities of 3 to 14 tons/hour.
- Depending on the quality of the fruit used the juice production is 76 to 82 w/w and more at the moment.
- The technical development of the **DF series** with regard to extracting apple, carrot, and pear juice has reached a level where we can now compete with any other extracting system.
- We exceed the production results of all belt presses and have measured up to the results of modern piston filter presses.

## The Big5 in Dubai

The major topic at the last **Big5** Fair in Dubai were crude oil applications.

**HILLER®** had many inquiries and reckons with first orders by the middle of the year. Already existing customer contacts were strengthened and will be extended even further.

## Fairs 2007/'08

We will again be present at many fairs in 2007!  
One of the largest and most important fairs this year is the



Fair for construction machinery, building materials machinery, mining machinery, on-site vehicles, and building equipment

Come and visit us at this fair from **23 to 29 April in Munich, Hall B2, Stand 123**

You will find the list of Hiller's fair activities on the Internet at [www.hillerzentri.de](http://www.hillerzentri.de).  
Subject to supplements and alterations.

## Achema 2006 in Germany

International Fair for Chemistry Technology, Environmental Protection, and Bio-Technology



Further development is a must - for the pharmaceutical industries, as well as for chemical and environmental industries. Accordingly big is the wish to collect information about innovations. Once again the **Achema** was an excellent place to do so.

We can again take a positive stock of the **Achema 2006**. Large numbers of customers from Germany and from abroad visited us. We have known for years that this fair is a leading business platform for investments in chemical and environmental industries.

**HILLER®** presented themselves with a newly developed decanter compliant with food safety requirements with gear unit drive, **3-phase technology**, CIP cleansing system, and an air-tight housing filled with sealing gas to prevent oxidation.

## Olive oil fair Montoro 2006

Ferria Montoro - one of Spain's most important olive oil fairs



All important producers from the vast field of olive oil production come to that fair. There exhibitors and customers from domestic and international

regions meet, who grow olives or are in the oil production business.

The **2006 Montoro Fair** was once again of great interest to its many visitors.

The Montoro Fair is kind of a trend barometer for this business because relevant innovations are introduced there.

Just like in the years before our partner **Centrifugacion Alemena** began presenting machines made by **HILLER®**.

## Hand in hand with Kemira Water

Owing to an intense co-operation in the fields of **sludge densification and bulking sludge abatement** the two worldwide renowned companies **HILLER®** and **Kemira** have moved even closer. As **HILLER®**'s distribution partner, **Kemira** have rented and sold machinery for sludge densification ('Kemwater SE') and other synergies like e.g. bulking sludge abatement since 2005. The mobile **Kemira** unit (see photo) is equipped with a fully automatic and self-acting state-of-the-art **decanter densification pump** by **HILLER®** and thus enhances the quick availability of machinery for presentation and renting.



Together with **Kemira**'s well-known flocculants Optifloc and Superfloc as well as their precipitants PAX and PIX the innovative DecaDrain technology form a perfect symbiosis.

No doubt that such an intense co-operation will be quite beneficial and profitable, not only for the partners involved but for their clients, too.

### Further development of the EMR 5000 control system



**HILLER®** constantly strive to improve their products. Therefore, the **EMR 5000** measuring and control system is also constantly developed further. Owing to the new touch panel the image has become ten times faster, and the screen reacts considerably more sensitive to the finger movements. Both features make operating substantially more pleasant than before. And, at the same time the screen has also become much more robust. Redesigned modules are found on the inside. Owing to these features and a protective circuit especially developed for this device the **EMR 5000** is now considerably safer with regard to faulty connection and excess voltage.

## Solis in the Benelux

As from now **HILLER® GmbH** co-operate with **Solis in the Benelux**.

They are a young, dynamic enterprise that has gained an excellent reputation, especially in the highly competitive communal market in the Benelux countries.



**Solis'** concept not only to sell machinery to their customers but to also offer long-term solutions for the after-sales care has yielded fruit. Hiller and Solis first appeared together at the Aquatech 2006 in Amsterdam. There **HILLER®** exhibited a medium-sized **DP 66-422 centrifuge** with a capacity of **60 to 80 m³/h**.



The fair was not only visited by a large number of domestic clients but also by a numerous international clientele who were very interested in the technology and the concept solutions offered by the Dutch company.

## WEFTEC 2006

The **WEFTEC** brought thousands of water and waste water specialists from all over the world together in Dallas, Texas where they were able to have a good look at the most innovative technologies in the field of water quality. Renowned suppliers from the industry and the most different fields of the drinking and waste water business were present there.



**HILLER®** presented themselves at the fair as a partner of Siemens with an impressive stand. This event offered the company the opportunity to personally meet old and new clients and to keep in touch with them or establish new contacts for either direct or indirect distribution.





## Company extension



**Parking lot** Additional 65 parking spaces were created on company ground after the completion of the parking lot.



**Grinding shop**  
**HILLER® GmbH** have extended their capacity by erecting a new building for the grinding shop. Moreover, a completely new exhaust system was installed to reduce the swarf exposure for the workers.



**Social container**  
Another investment made by **HILLER®** is the new social container erected pursuant to all applicable construction safety requirements, which finally did away with the cramped conditions in the changing, washing, and rest rooms.



**Warehouse**  
In October 2006 a third warehouse was completed. Now there are three warehouses with a storing area of 1,900 m<sup>2</sup>

## HICA - A new company in Spain

**HILLER + CENTRIFUGACION =**



**Hica**, the new company of which **HILLER®** and

**Centrifugacion Alemana** hold 50% each, has existed since October 2006.

In contrast to **Centrifugacion Alemana** who have been quite successful in the Spanish olive oil production market **Hica** is now responsible for projects in the fields of industry and waste water. They do not only distribute new machinery but also offer after-sales service - not only for **HILLER®** centrifuges but also for machines made by other manufacturers. On a grand-scale area in Montoro a spacious production and repair hall with the corresponding shop equipment was built.

Owing to the new enhanced work capacity **Hica** can optimally accede to their customers' individual ideas and wishes.

We wish our Spanish business partner good success and look forward to the co-operation.

## Hiller donates

**HILLER® donates to children and their families in the Third World**

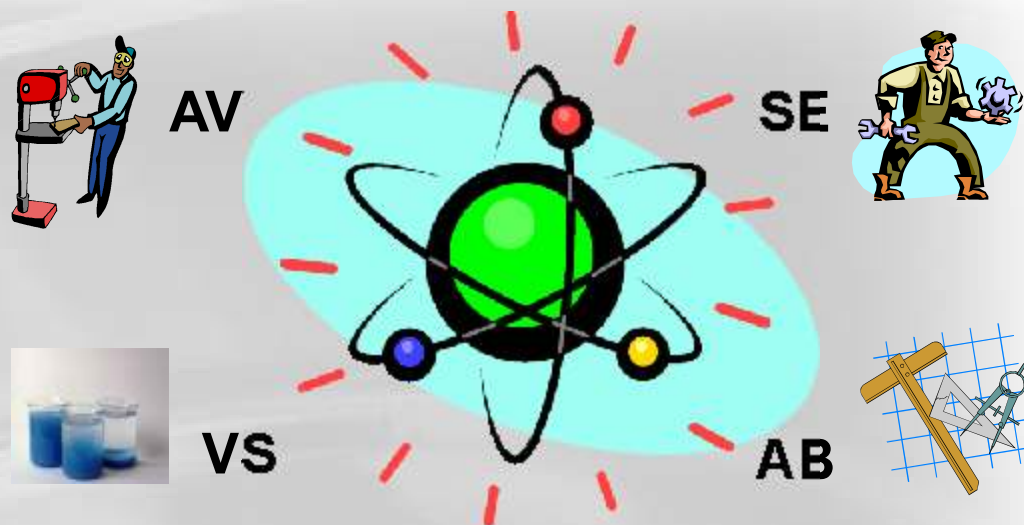


Each shipment that leaves the **HILLER®** premises helps children and their families in the Third World. Owing to the bonus program 'Ship & More' so many points were collected that World Vision, on behalf of **HILLER®**, could donate two wheelchairs and one survival pack to people in distress.

We are glad we could help and would like to thank our customers all over the world on this occasion who the machines were shipped to and who thus enabled us to donate.

## OPTIMA 2007

...strategy plan **OPTI**mal **MARK**et presence **Hiller GmbH 2007**



Our cross-department customer concept "**OPTIMA 2007**" was the inspiration for an integral, extremely ambitious initiative at **HILLER®**. The project is mainly brought to life by those departments that are in close contact with our clients.

It is the objective of all personnel involved to create maximum possible customer satisfaction by means of an optimized market presence based on a comprehensive cross-department technical education and training.

In future our customers will be supported by field-service engineers who know everything about process techniques, mechanics, electronics, SPS programming, and hydraulic equipment.

Our "**hybrid engineers**" will be able to comprehensively take care of our customers and to find solutions on-site.

Parallel to that **HILLER®** will create an "**Electro-Competence Center**" with a specialized staff to be able to meet the manifold requirements of extended global tasks with regard to planning and successful installation of electrical installations using compact and constructive solutions.

The third cornerstone of this concept has already been laid with the comprehensive extension of the "**HILLER® Repair Center**". **HILLER®** invested a lot in equipment and personnel to safeguard an even higher repair quality at optimized processing time.

The fourth pillar the concept rests on is the continuous evaluation of data from various fields of business using a comprehensive networking of existing data streams to create a cross-field "**knowledge data base**" for procedural applications. We have planned to offer our clients and distributing partners an interesting online access to a **HILLER®**-coded Internet platform.

With their "**OPTIMA2007 Concept**" **HILLER®** intend to achieve another quantum leap regarding customer satisfaction. It is our declared goal to fulfill our clients' high expectation on our staff and our products. A fair and open information partnership with our customers has top priority at **HILLER®**.

If you have any questions regarding our "**OPTIMA2007 Concept**" please contact Mr. Bernd Ramsauer ([ramsaer@hillerzentri.de](mailto:ramsaer@hillerzentri.de)).

## Anniversaries in 2006 an new staff members

**Celebratees who were honored at the 2006 Christmas Party**

**for 25 years of duty**  
Mr. Hans Barstorfer  
Mr. Georg Leierseder  
Mr. Franz-Xaver Wiesmayer  
**for 15 years of duty**  
Mr. Kurt Frank  
Mr. Wolfgang Freitag  
Mr. Norbert Nöbauer  
**for 10 years of duty**  
Mr. Josef Axenbeck  
Ms. Marion Eberl  
Mr. Florian Hauser



### New staff members:

|                           |          |                          |            |
|---------------------------|----------|--------------------------|------------|
| Mr. Christian Schmidt     | 1/1/2006 | Mr. Chr. König, trainee  | 10/1/2006  |
| Mr. Joseph Aigner         | 3/1/2006 | Mr. Dieter Schubert      | 10/1/2006  |
| Mr. Helmut Görke          | 4/1/2006 | Mr. Thomas Lentner       | 10/16/2006 |
| Ms. Nicole Gutwirt        | 5/1/2006 | Ms. Anja Lingott         | 10/16/2006 |
| Mr. Franz Gockner         | 5/1/2006 | Ms. Jennifer Bittmann    | 10/23/2006 |
| Mr. Stefan Scherer        | 5/1/2006 | Mr. Richard Braun        | 11/1/2006  |
| Mr. Bernhard Schmiedeck   | 6/1/2006 | Mr. Friedrich Holbl      | 11/1/2006  |
| Ms. Kerstin Schall        | 7/1/2006 | Mr. Markus Gangkofer     | 12/1/2006  |
| Mr. Christian Greiner     | 7/1/2006 | Mr. Christoph Forstmeier | 12/1/2006  |
| Ms. Petra Spitzlberger    | 7/1/2006 | Ms. Simone Eckmaier      | 1/1/2007   |
| Mr. Georg Handl           | 9/1/2006 | Mr. Josef Maulberger     | 1/1/2007   |
| Mr. Martin Huber, trainee | 9/1/2006 | Mr. Markus Westenthanner | 1/1/2007   |
| Mr. Martin Preu, trainee  | 9/1/2006 | Mr. Ulrich Schuder       | 2/1/2007   |

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