



HILLER

separation & process

NEWS 2015

GERMANY AUSTRIA INDIA
EDIBLES OLIVE OIL
GREECE SPAIN ITALY
MINERAL OIL NATURAL GAS
HUNGARY TUNISIA USA
RENEWABLE ENERGY
RUSSIA INDONESIA CHINA
CHEMICALS PHARMA
GERMANY - BAVARIA EMIRATES
ENVIRONMENTAL TECHNOLOGY
CHINA TURKEY ENGLAND
WASTEWATER TREATMENT
AUSTRIA GREECE RUSSIA
MINING TUNNELING
SPAIN ITALY INDIA POLAND



EN

Dear Customers and Readers,

"April showers bring May flowers!" - in line with this proverb, our internet site has been given a major overhaul and now has a whole new look, primarily with fresh content and functions, as well as being brought up to the latest web standards.

Naturally this revamp was not just carried out over a few days in May; as you can imagine it is the product of much preparatory work and planning, as well as careful implementation and detailed optimisation work. And, like all the important tools and products at our company, our website has been developed in-house by our own staff. As such it can be seen as representative of many of our new developments over recent months and years.



Building on in-house core competencies and using these for the benefit of our customers - this idea is ultimately the guiding principle behind everything we produce, whether hardware, software, production-oriented or organisational in nature: Our new control system - SEE-Control - the new design decanter drive concept SEE-Drive, the many large and small mechanical improvements to the new DecaPress series, the unsurpassed performance of our DECAFood machines in the winemaking process, or even the systematic expansion of foreign subsidiaries, as well as the implementation of a comprehensive quality management system within our ERP system and even the introduction of the BCS spare parts concept (BCS stands for Basic, Comfort and Safety), each including a tailored spare parts package compiled for our customers.

In all these examples, our highly qualified employees work together in front of and behind the scenes to create what ultimately makes our company: **closeness and service to customers.**

So it goes without saying that developing and encouraging our employees and their talents enjoys high priority, and fills us with pride. This begins with the training of apprentices, and continues with a variety of training and qualification programmes. We encourage personal initiative and do not shy away from taking less obvious routes to reach our goal: for you, our valued customer!

With all this said, we would like to invite you to visit our new website www.hillerzentri.de in the knowledge that we have you in mind!

With best wishes from Bavaria and "Vergelt's Gott!" - our way of saying "Thank you" to our customers, partners and employees.

Yours sincerely
Georg Hiller

OVERVIEW

Projects | Product applications | News | Company news | Service | Sales partners:

Page:

3 > **HILLER** Apprentices visit the Amperverband

4 + 5 > Success Story ROBERTSON WINERY, South Africa

6 + 7 > Continuous juice production from root vegetables
7 > **HILLER LLC USA** goes mobile

Page:

8 > **HILLER** ECO-Jet Weir Plates

9 > United Utilities success for **MSE HILLER** CibusTec in Parma

10 > Less pollution in the Bolivian mining due to **HILLER** centrifuges

11 > **HILLER** in South Africa

HILLER GmbH Apprentices visit the Amperverband

On 2nd September 2014, the yearly excursion of the **HILLER GmbH** apprentices from Vilsbiburg took place. This year, the destination was a central wastewater treatment plant near Munich.

Several municipalities and cities belong to the Amperverband, which was founded in 1960.

The wastewater of more than 150.000 inhabitants as well as further 30.000 inhabitant equivalents from industry and trade of the association members is collected, drained and then purified by means of the latest technology in the wastewater treatment plant.



The group was welcomed by the graduate engineer Hedda Kraus, who explained the general process of a wastewater treatment plant to the prospective experts for centrifuge technology. A quite important theme, water being one of the most valuable commodities on our planet. Therefore the purification of our drinking water is a very important job. Particularly interesting was the sludge dewatering process, which is done by means of two **HILLER** decanters of the size **DP45-422**.

Just a few years ago the dewatering was made via winkle presses, which however could not match the dewatering performance of a centrifuge.

As a result, in 2012 it was decided to buy the first **HILLER** decanter and the second in 2013. Meanwhile, a dry substance content of 27% has been achieved at the wastewater treatment plant. Before that, with the old winkle press technology at the most 19-20% could be achieved. Because of the now substantially higher dry substance content the sludge volume decreases significantly. Thus, the wastewater treatment plant is saving a lot of money: after all, the disposal of sewage sludge is an expensive matter.

The group with the graduate engineer Hedda Kraus

Following the group had lunch and then visited the BMW World, where they took part in a guided tour through the factory in Munich.

Finally, all agreed, that the excursion was again really successful and interesting.



Water is one of the most valuable commodities on our planet. Therefore the purification of our drinking water is a very important job.



Success Story

ROBERTSON WINERY, South Africa

South Africa's wine growing tradition goes back several centuries.



This is the reason why the decanter technology is becoming more and more popular in South Africa. Within only a few years many decanters have been installed for grape processing.

There are numerous reasons for this. To be mentioned are fast and continuous processing, offering hygienic operation, the option to adjust for different grapes, the little lees content in the juice, and the very high yield of 'A' grade must.

European producers are being confronted with the challenge to carry out the harvest in less and less time due to the climatic change. By the increasing use of harvesters higher tonnages of grapes have to be processed in a short time.

Winemaking at the Robertson winery for many generations

The cooperative wine cellars "Robertson Winery", founded in 1941 in Robertson, South Africa, looks back on a long tradition of wine growing and wine production. Today 35 families, some of them in the 7th generation, are part of the success of the cellar, with a growing area of a total of 2,400 hectares wine. The wine product range includes many different white grape varieties, such as "Chenin Blanc", "Chardonnay", "Sauvignon Blanc", "Hanepoot" and red grape varieties, such as "Cabernet Sauvignon", "Shiraz", "Pinotage" and "Merlot". The Robertson Winery processes around 37,500 tons of grapes per year. Of this 21,500 tons are white, the remaining part is red. 100% of the finished wine is bottled. "Bulk wine" is not produced. Thus each litre has a high value.



In the past the juicing of grapes had been carried out traditionally with tank presses. The installation of the **HILLER** decanter technology now allows continuous production with significantly less manpower.

This change of process has taken place in incremental steps over three years, with one additional machine having been added each year. In the first year a decanter for lees preparation was installed. In the second year the first decanter for grape pressing was added, and in the third year an additional decanter for grape pressing has been commissioned.

2013: Installation of first **HILLER DF54** for lees separation

After extensive tests in preparation for the 2013 season, the first food machine of type **DF54** for the separation of solids from juice and wine was put into operation.

Replacing the vacuum drum filters, it is now processing floating lees, fermentation lees and fining lees.

It is known that must with a relatively high content of lees is formed by using tank presses. These fines are removed from the must after pressing by flotation or settling and then processed at 100,000 l/day in a combination of the **HILLER** lees decanter with a disk centrifuge. Disk centrifuges on their own could not handle the high lees content. Advantages of the use of the decanter are high savings in filter aids, water and working time and a significantly higher quality of the recycled must or wine.

After the success with this machine, the customer decided to buy a second, larger decanter for grape pressing.

2014: Installation of a large **HILLER DF76** for grape pressing

This decanter is used to process white grapes, and in the same way thermo-vinified and conventionally fermented red wine mash is processed. Here the decanter has replaced the old pressing systems. Throughput and yield vary depending on grape variety and conditions, but compared to normal presses the **HILLER** food decanter DF76 always reaches higher yields and quality with low fines content. This makes the winery more flexible for later extensions.

Robertson is very happy with the must of the **HILLER** decanter which is always premium quality. Thus classification into A- and B-qualities, as with tank presses, is no longer required. In all internal tastings, the decanter wine was always among the top 4 of 10 tested wines (5 **HILLER** and 5 conventional).

In total, the time and energy needed for handling the products (storing, re-storing, pumping, processing) is reduced significantly. In addition the times for pressing and enzyme addition can also be greatly reduced. The closed system with controllable peeling disc is highly hygienic, flexible and stable in operation. The juice is removed under pressure, allowing it to be transferred to the tank farm without a further pump being necessary.



Currently different decanter systems are on the market. Due to the closed **HILLER** design with peeling disc, foam formation is not an issue.

In the season 2014, Robertson Winery processed a total of 2,000 tons red and 3,500 tons white grapes with the **HILLER** decanter.

2015: Installation of third large **HILLER DF76** decanter for grape pressing

In January 2015, five big tank presses were replaced by a second food decanter model **DF76**.

It is used for pressing white grapes and, as expected, runs as efficiently and with high yields.

At Robertson, they say there is no simpler and more economic alternative to the decanter. It is the perfect technology for increasing capacity. Robertson Winery is very happy with the cooperation and technical support from UDEC and **HILLER**.

Summary

HILLER decanter technology will have a big impact for operation of the wine cellars in the future as it enables a continuous and hygienic process with enormous saving of space, less work being required and above all highest yield of best must – compared to conventional pressing systems. In all cases the final product can go into the production of premium wines ensuring higher returns for the producer.

At this point **HILLER GmbH** wishes to thank its South African partner UDEC (Pty) Ltd for the strong support on site and the assistance of the universities of Stellenbosch and Geisenheim.

Finally: without the professional support of Francois Weich, the Senior Winemaker of Robertson Wines, his team and management, we would not have made the progress mentioned above.

Continuous juice production from root vegetables

In order to achieve high yields of the best quality when processing root vegetables, the **HILLER GmbH** developed a new mechanical cell maceration process in cooperation with the university for food technology *Weihenstephan* in Bavaria and the plantbuilding company *Empl* also in Bavaria.

This decanter is fitted with a special scroll design for improved separation of mash with variable viscosity.

The effect of microorganisms and the product's own enzymes is eliminated by short-term heating in an integrated heat exchanging system.



The aim was an economically attractive development project to improve the taste characteristics of the juices. Different root vegetables such as celeriac, beetroots and carrots were grinded via a macerator and a high-performance conditioner. Following, the solid-liquid separation of the mash takes place in a **HILLER** decanter with steam injection for a short-term, homogenous and controlled heating.

The overall concept of the juice extraction system aims at an efficient usage of the used thermal energy to cure the juice. To minimise the effects on juice taste characteristics, the thermal reaction time is held as low as possible.

Besides extremely good yields, the result of this extremely energy-efficient process were cloud-stable juices with high colour intensity and a fresh vegetable taste.

HILLER LLC USA goes mobile!

With a fleet of mobile pilot and test plants **HILLER** provides customers all around the world new testing procedures and processing concepts that allow **HILLER** test engineers to acquire process data and generate optimal process solutions during continuous operation.



DP484 pilot and test plant

Now **HILLER Separation & Process LLC** in Lampasas, Texas will also be able to provide on-site testing services featuring a brand new mobile plant equipped with the new **HILLER** Model **DP484**.

The new **HILLER DecaPress** range with its exclusive direct drive gearbox system offers superior energy efficiency and reduced power consumption.

This new machine generation also features much higher production capacities as well as higher dry solids contents, with reduced polymer consumption.

This mobile test plant is equipped with the latest technology so it can be optimally integrated into the process as a replacement system with minimal effort in just a few hours.

The benefits to our customers:

- flexible and fast deployment
- minimal space requirements
- high efficiency levels
- minimal staff requirement
- simplified operation
- maximum solids contents discharged
- higher throughput levels
- energy-efficient

Contact:

HILLER Separation & Process LLC

Mr. Tony Langley

1010 Mclean

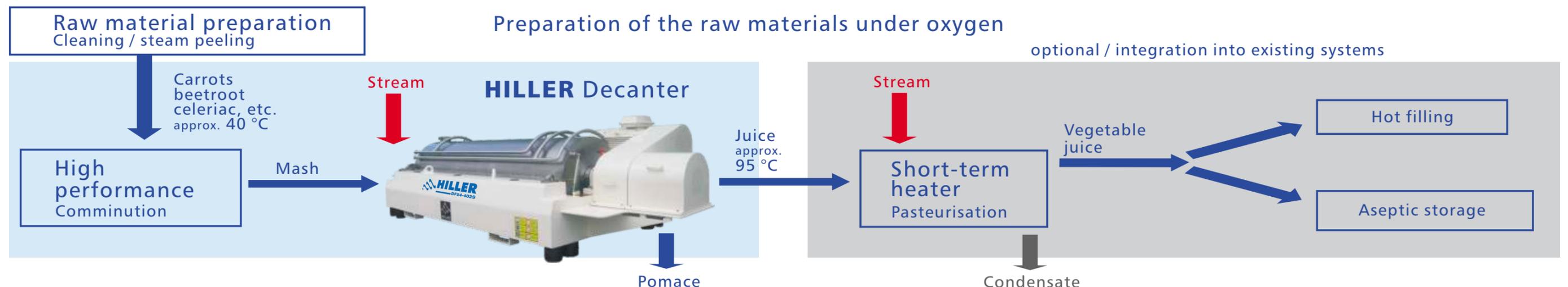
Lampasas, Texas 76550/USA

phone: +1 512-556-5707

e-mail: info@hiller-us.com

www.hiller-us.com

PROCESS DIAGRAM for the new, continuous vegetable juice production process using mechanical cell maceration



HILLER ECO-Jet Weir Plates



HILLER has developed a system that helps you to save up to 30% of the energy consumption in your decanter.

HILLER ECO-Jet Weir Plates are shaped to provide targeted deflection of exiting centrate water and pass the energy saved directly back to the main drive.

In the process, the main drive consumes up to 30% less drive energy – the level of potential saving depends on the throughput and the decanter size.

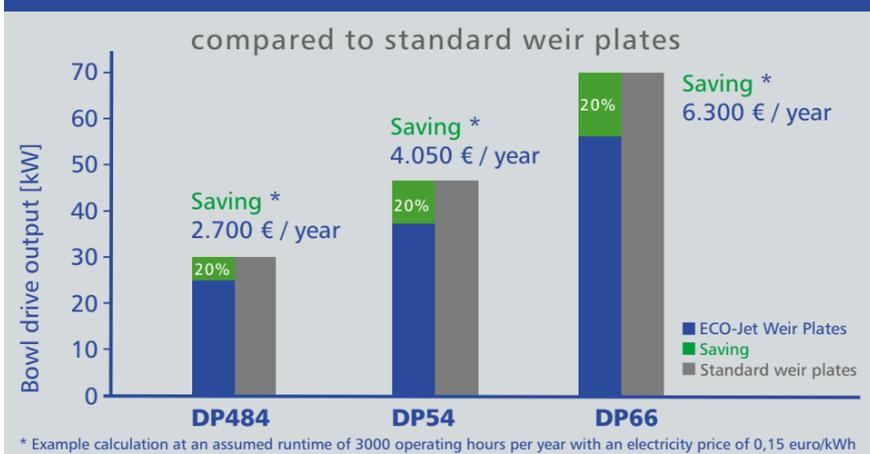
HILLER ECO-Jet Weir Plates can be installed in all **HILLER** decanters from size **DP484** on at minimal cost.

The advantages at a glance:

- rapid amortisation
- considerable reduction in energy consumption
- problem-free integration into standard **HILLER** decanters
- can be used in different applications
- quick and simple installation
- no power loss in the system



SAVING ECO-Jet Weir Plates



This optimisation makes financial sense and protects the environment!

We would be delighted to calculate the potential savings you could achieve in your system free and without obligation!

Please get in touch!
 After Sales: Mr. Franz Bauer
 Mail: aftersales@hillerzentr.de
 Hotline: +49162/2914644
 Backoffice: +498741/48-175
 Fax: +498741/48-740

eco-jet.de



United Utilities success for MSE HILLER



MSE HILLER have recently been awarded contracts to supply six **DP66-422 HY** centrifuges for the UK water company *United Utilities*.

Four units were ordered from the contracting company *KMI* for the Leigh wastewater treatment plant for the soon to be installed CAMBI THP process and an additional two units also ordered from *KMI* for pre digestion sludge thickening on the wastewater treatment plant in Burnley. The orders follow on from **MSE HILLER's** previous success on the Northumbrian Water wastewater treatment plant Bran Sands at Teeside where four **DP76-402 HY** machines were installed;

two for pre CAMBI thickening of raw and surplus activated sludges and two for post digested sludge dewatering.

Cake dry solids of 28 – 33% ds are common on these processes and so the amortisation time is very short.

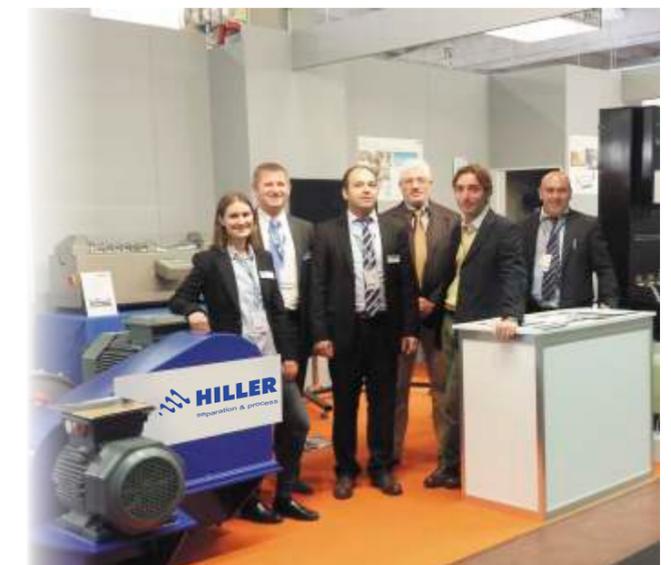
These contracts won despite stiff competition from others prove that the reliability and stability offered by the **HILLER DecaPress** centrifuges combined with the excellent service support of **MSE HILLER** is a good decision in a highly competitive marketplace.



CIBUS TEC in Parma

Once again **HILLER** took part at the exhibition Cibus Tec in Parma together with its long term sales partner Huber Technology GmbH. The exhibition with focus on the food industry has again been very successful with about 1.000 exhibitors and about 30.000 visitors. For that reason, the regular cycle of the exhibition was reduced from three to two years.

Both, for **HILLER GmbH** and its Italian sales partner, the exhibition was a big success with a lot of enquiries and new interested parties. On the part of **HILLER**, the food specialists Martin Götz (2nd from the left), Sophie Schwarzwälder (1st from the left) and the Head of Sales Georg Diakourakis (3rd from the right) joined the exhibition. They presented the decanter technology on the basis of a **DP15** perspex dummy and a **DP45-422** and hence could establish a lot of new international contacts.



Less pollution in the Bolivian mining due to **HILLER** centrifuges



For more than 1000 years, precious metals have been mined in South America. In the past, the arising sludge was drained directly into the rivers. Later, disposal sites were built, which have many disadvantages such as poor stability, pollution of ground water and air, limited life expectancy and, in addition, costly new structures and mine closures are often necessary.

The solution is the use of decanters for dewatering of the sludges. In this way, the water can be reused in the process and the disposal sites become more durable, because there will be only dry goods to be stored.

Previously, decanters were almost unknown in Bolivia. The DEG, a German corporation for investment and development, and the KfW, a corporation of several banks, functioned as a Public Private Partnership together with the **HILLER GmbH** to promote the decanter technology on the Bolivian market. The aim was to reduce pollution caused by the mining sector.

At this project, **HILLER** staff carried out pilot tests with one of their mobile decanter units together at *Rosicler* and *Santa Lucia ini Potosi* mines. During these pilot tests sludges from silver, copper, tin and gold mining were dewatered. The tests took a few weeks and in the end the results were all positive.

Bolivian employees from administration, politics and other mines as well as students visited the installation. Furthermore, several seminars and trainings as well as participations at trade fairs have been realized.



With this number of partnership activities, a great interest was generated. And now, **HILLER** is under consideration with big mining companies of the region. This project has become an impressive example for the public private cooperation for the transfer of technology, environmental protection and for the opening of new markets.



HILLER in South Africa

Our long standing sales partner, UDEC (Pty) Ltd, is celebrating 25 years in business. UDEC stands for high-quality products and good service, and has represented **HILLER GmbH** in South Africa for 5 years. During this time, UDEC has sold a large number of machines.

UDEC has long term partnerships with customers with different applications. They are particularly successful in wine, juice and fish industry.

Wine:

An independent wine analysis showed the high quality of the MCC champagne which is produced using a **HILLER** decanter at the customer Graham Beck. The quality is equivalent to the MCC champagne from the traditional grape pressing process. This is a great success, because the production of champagne is said to be the supreme discipline of the pressing technologies. Besides the high quality, the decanter has a lot of more advantages for example the standards of hygiene and the low levels of maintenance.

One of the biggest wine producers in South Africa, Robertson Winery, purchased a **HILLER DF54** in 2012 and a **HILLER DF76** in 2013. The high level of performance of the two machines was so impressive to the customer, that in 2015 a further decanter **HILLER DF76** was installed. Also see text on pages 4-5 for more information.

Fruit juice:

After over two years of intense testing, the **DF76** is successful in the market.

Compared to the double belt press, the output quality is clearly much higher with the closed system, one-step process of the **HILLER** centrifuge. Further advantages are the simple cleaning and the associated hygiene levels.

Whisky:

The **HILLER** decanter technology is also the preferred choice for the whisky distillation.

For example, one **HILLER** centrifuge is used 24 hours a day at a distiller whose whisky was voted for the best Grain Whisky worldwide of the WWA in 2013.

Fish:

UDEC also paves the way into the fish industry. After the successful installation of a plant for fish oil on a fishing vessel in Angola and another at a fish processing platform in St. Helena Bay, a large processing plant was also convinced of the quality of **HILLER** centrifuges and is now modernizing its processes with **HILLER** decanters.



We wish UDEC continued success in the South African market, and look forward to continuing this excellent business relationship!

IMPRINT:

HILLER GmbH
Schwalbenholzstraße 2
D-84137 Vilsbiburg/Germany

Tel. +49 (0) 8741 / 48-0
Fax +49 (0) 8741 / 48-710

Responsible for contents - editorial office:
Georg Hiller jun., Tanja Giritzer

www.hillerzentri.de
info@hillerzentri.de

www.facebook.com/HillerSeparation  

Idea, conception, graphic-design,
production, printing service:
© ANZO-Werbeagentur
Aichstraße 21, D-84163 Marklkofen
Tel.: +49 (0) 8732 / 93 05 05
www.anzo-werbeagentur.de



HILLER is providing competent solutions for these industries and special applications:



 Foods and beverages



 Mineral oil, gas, regenerative energies



 Chemical and process industry, pharmaceutical industry



 Environmental technology



 Mining and tunnel construction, mineral raw materials, drilling fluids

