



BELLMER

Paper Technology
Separation Technology

INFO 68

Solis Projects – a new **BELLMER** Group member **BELLMER** strengthens market position in Benelux

The Netherlands and Belgium are two of the world's most populous countries, where dewatering technologies specifically adapted to local conditions are critical to meet high expectations for environmental protection and sustainability. Bellmer has built a well-deserved reputation as market-leader in the Benelux over the past 20 years thanks to its WinklePress™ and TurboDrain™, which provide highly economical and efficient sludge processing.



Heading to the future...

With more than 400 installed machines, these technologies speak for themselves. But in order to strengthen its market position still further, Bellmer, together with long-standing Dutch sales partner Fred Kouvelt, has founded a new company, Solis Projects bv, which became a member of the Bellmer Group on 1 July 2009. The new company works directly with municipalities and on special separation technology applications, and Bellmer's backing means large-scale projects can now be financed. Solis can be contacted at info@solis.nl. The contact for customers in the paper industry as well as for those customers of the separation technology sector applying products of the paper technology remains our established Benelux agency XTECX: Henk Stals is always on hand to assist Bellmer customers and can be contacted at h.stals@xtecx.nl.

cessing. With more than 400 installed machines, these technologies speak for themselves. But in order to strengthen its market position still further, Bellmer, together with long-standing Dutch sales partner Fred Kouvelt, has founded a new company, Solis Projects bv, which became a member of the Bellmer Group on 1 July 2009. The new company works directly with municipalities and on special separation technology applications, and Bellmer's backing means large-scale projects can now be financed. Solis can be contacted at info@solis.nl. The contact for customers in the paper industry as well as for those customers of the separation technology sector applying products of the paper technology remains our established Benelux agency XTECX: Henk Stals is always on hand to assist Bellmer customers and can be contacted at h.stals@xtecx.nl.

New calendering and reeling technology: Rebuild at Rieger's paper mill pays off

Hamburger Rieger GmbH & Co. KG paper mill in Trostberg, Bavaria, produces high-quality white top / coated testliners on PM 2 using a 100 % waste paper furnish. The company puts a high value on a smooth, homogenous, closed surface, as well as optimum cleanliness and brightness. Bellmer, as general contractor, has recently modernized the final drying group on PM 2. In the course of project, our partners GapCon installed a new VariCal™ calender, equipped with heated VariTherm™ top roll and swimming bottom roll with VariCon EC™ edge zone control. A new Bellmer EQUALReeler™

reel guarantees optimized reeling hardness using BELLDur™ integrated reeling hardness control, and also ensures reduced rejects caused by reel spool change. The modernization project was completed with the modification of the ninth dryer group combined with the adaptation of the dry wire guiding system. Also installed were a new EQUALPulper™ and BELLBlow™ transfer unit. The upgraded PM 2 has been operating for several months. All project targets have been met and in many cases exceeded. The new surface properties have allowed the crew at Rieger to save on coating materials while still achieving improved quality. In summary, Rieger enjoys:

Dear INFO Reader,

It takes a lot of courage to invest in times like these. However, tough market conditions call for strict examination of operating costs, and many of those who have undertaken cost-reduction exercises have discovered untapped potential in their processes, which modern technology can exploit to the full. For example, following its rebuild project, Rieger paper mill is using less coating materials and enjoying a reduced reject rate. Then there is the new generation of WinklePresses™ which have lowered energy costs at Neckarsulm's sewage treatment plant. And there are many examples of Lang-Hafner solutions helping customers to economise on energy. Take the long view and reduce your operating costs for good.

Yours sincerely,
Philipp, Martin and Erich Kollmar



A great partnership: the teams from Rieger and Bellmer

- fewer rejects
- savings in coating materials
Which means fast payback on the rebuilt project.

High-pressure dewatering with the WPH at Metsä Tissue in Raubach

The Finnish Metsä group of companies is one of the largest European manufacturers of tissue paper. The two non-Bellmer machines operating at Metsä's Raubach mill for dewatering

floatation tailings / deinking sludge were getting on a bit, and required rather too much maintenance effort. The

final dry content values were also no longer satisfactory. Since Metsä's sites at Tendo and Krapkowitz had reported very positive experiences with the WinklePress™ WPH for high-pressure paper sludge dewatering, Metsä's management got in touch with Bellmer to see what could be done for Raubach. Examination of the sludge to be dewatered was performed in our



The WPH – unbeatable for the paper industry

in-house laboratory and its analysis confirmed that significantly higher dry contents were achievable. After several reference visits to Bellmer customers, Metsä Tissue awarded Bellmer

the order for the supply of a WinklePress™ WPH 2 and of a TurboDrain™ TDH-L3, combined as a Cascade-S. The sludge is pre-thickened using the TDH, while the WinklePress™ WPH carries out further dewatering to boost dry contents still further - and no additional flocculent is required.

Through this investment at Raubach, Metsä Tissue has made a significant and long-term reduction in its environmental impact. The WPH is also renowned for its low energy consumption – a significant factor in times of high energy prices.

Another 3 WinklePresses™ for Neckarsulm

Despite being in service for between 27 and 34 years, the three WinklePresses™ operating at Neckarsulm municipal sewage treatment plant were still doing their job dewatering anaerobic stabilised sludge without any fuss.

To be fully prepared for the future, however, the Association for Sewage Treatment "Unteres Sulmtal" (lower valley of the river Sulm) decided to perform a comprehensive upgrade and extension at Neckarsulm, ready

for a projected population of 200,000. The plans included the replacement of the dewatering technology. Every year, 55,000 – 60,000 m³ sludge is generated at Neckarsulm at a dry substance value of approximately 4 %. The goal was to improve the dewatering rate, since a solar drying unit was to be installed as part of the project, and for solar units to be effective, high final dry contents are very useful. At an early stage of the tender, trials of various dewatering machines were carried out on site.

The new WinklePress™ technology achieved the best results in terms of final dry substance, and consequently an order was placed with Bellmer for the supply of three WinklePresses™ WPN-K 2. The guaranteed dewatering level is 28 %. Since the start-up and optimisation phase a few months ago, the units have been working well.



The new generation: spick and span, and low operating costs

Fritzlar saves operating costs with the TDC 08

In 2007, the sewage treatment plant at Fritzlar in North Hesse was fitted with two new, large combined tanks, the effect of which was a significant enhancement in the quantity of sludge which could be treated. This meant an investment was needed in equipment to thicken the sludge to ensure the plant's operational safety.

Previously, excess sludge at a solids content of 0.6 – 0.8 % at the inlet had been passed to a digestion tower. The final dry substance rate reached was just 2 %, which was clearly not acceptable.



Saving operating costs with the TurboDrain™

In search of a solution, staff at Fritzlar visited IFAT 2008 in Munich and acquainted themselves with all the latest in sludge thickening technology. A combination of the numerous references from satisfied customers and evidence of low operation costs convinced the visitors that Bellmer was the way to go.



Mr. Müller and Mr. Thrun of Fritzlar sewage treatment plant are very happy with their TurboDrain™

The Bellmer TurboDrain™ TDC 08 consumes only 2 kWh/ton of sludge and reliably achieves final thickness degrees of 6 – 8 %. The Bellmer sludge thickening system installed is now running to our customer's complete satisfaction.

AKUFLO MX by **BELLMER** KUFFERATH Micro flotation to suit minimal space requirement

Bellmer Kufferath Machinery does more than just supply screw presses and dandy roller systems. For some time now, the company has also delivered highly specialized micro-flotation units. Following an optimization phase, the first AKUFLO MX micro flotation system has been commissioned at Schoellershammer paper mill in Düren. Up to 300 m³/h of white water is cleaned from approximately 2,500 mg/l to < 100 mg/l. AKUFLO MX represents a new innovative layer technology that has been developed in cooperation with the Technical University RWTH of Aachen. Up to five flotation cells as well as a cell for the flotation tailings post thickening process are arranged in a tank in stack formation. The clear water out of each cell is collected and centrally drained. This technology makes it possible to

clean up to 450 m³/h of water (including pressure water) on a footprint with a diameter of just 4 metres. The advantages are clear:

- minimum space requirement
 - plant fits in any corner
- low heat loss through compact design
- optimum clear water values and highest flotation stock density through separation of clear water drainage / post thickening of flotation tailings

AKUFLO MX particularly complements flotation plants made by Bellmer Kufferath Machinery. Further options include:

- AKUFLO PP – turnkey flotation systems (plug&play) up to approximately 70 m³/h
- AKUFLO M – systems in modular design for specific applications.



Flotation plant at Schoellershammer paper mill

BELLMER Service – always prepared!

Since the mid-1980s, USG Middle East Ltd has been producing mineral fibre board for ceiling systems with a Bellmer plant in their mill on the Arabian Peninsula on the Persian Gulf Coast. One afternoon, just before the weekend, an unforeseen power surge occurred, which brought an abrupt halt to the working day. Certain components in the process

through which to provide the technical support that was needed. Once the Tele-Service system was activated, experts at Bellmer were able to access the customer's PCS directly via the phone line and perform the necessary analysis of the system. Armed with this vital information, we were able to organise a door-to-door express courier to supply the parts

urgently needed. Delivery was made on Saturday night, installation performed on Sunday along with Tele-Service integration into the process control system. The plant restarted on Monday morning. A faster completion of the mission would not have been possible. Thanks are due to our partner companies LENZE of Hameln as well as to SIEMENS in Stuttgart,

since such a speedy response would not have been possible without their help. USG gladly confirmed: "Your help within such a short span of time was very much appreciated by the management here."



USG plant enjoyed a perfect restart thanks to Bellmer's swift service response

control system as well as some programme elements were damaged beyond repair. USG called Bellmer and our service swung into action. Using their experience and knowledge, Bellmer's service staff rapidly found the sources and channels

15 % steam saving with Lang-Hafner

AZPK – just 50 km from Arkhangelsk – produces natural-brown coloured packaging material on two paper machines. The stable kraftliner with



The contractual targets were hit, and the customer's satisfaction, complete

a basis weight of 125 g/m² is currently manufactured at a speed of up to 530 m/min. The complete steam and condensate system has been modernised with a view to achieving a significant increase in machine performance. The air technology in the main steaming zone was also completely renewed. The contractual performance run was carried out after board machine # 2's successful commissioning in January. Evaluation of the measured data showed an excellent result: clearly > 15 % steam saving was reached combined with a considerable improvement in quality.

Another WPX for Uzbekistan

The Ferghana valley is a basin 300 km long and 110 km wide between the Tianshan and the Altai moun-



Smiles all round in the Ferghana valley: successful production beckons!

tains in Central Asia. The Syrdarya river flows through this beautiful but densely populated valley, which is home to more than 10 million people. The valley includes not only Uzbek territory, but part of it also fall within the borders of Tajikistan and Kyrgyzstan. It was – in former times – a major trading point on the Silk Road. The valley is very fertile and the main economic activity is the cultivation of cotton, rice, wine, fruit and vegetables. The Rahnamo Group has for many years operated a fruit and vegetable

processing unit near the town of Kuva within the Ferghana Valley. Besides the processing of tomatoes, de-juicing of apples is their main activity. Since the previous plant was old and needed to be replaced, the Group opted for a new Bellmer Winkle-Press™ WPX size 1. With its 6-stage press technology this unit treats the apples efficiently but still presses

them gently. In addition to the WPX, a Bellmer Apple Crusher™ BAC and BVS vibration screen will ensure optimal production in the future.

This is yet another plant installation in Uzbekistan carried out thanks to good cooperation between Bellmer and its customer and the professional local service provided by our representative Mr. Mamadyanov.

German Water Partnership: water skills “Made in Germany”

German companies operating in the fields of drinking water supply and waste water disposal have gained experience over more than 150 years, which has made them among the most efficient service providers in the world. In 2008 - recognizing the key role of this highly specialised technology - the German Federal Government initiated the foundation of a platform, the German Water Partnership, that coordinates activities in the water management industry, promotes innovation and pools information resources. Enterprises, governmental authorities as well as non-govern-



German Water Partnership

mental organizations, trade associations and scientific institutions have all been getting involved. It is also their intention to spread German know-how in this sector throughout the world. Bellmer, as you might expect from a quality supplier and innovator in this market, is a member of the German Water Partnership. For further information please visit: www.germanwaterpartnership.de.

Lang-Hafner and BELLMER bring smiles to children in hospital

Lang-Hafner, in cooperation with AZPK of Akhangelsk, has helped support the children's ward at Novodinsk municipal hospital in Russia for several years.



Welcome distraction from the sterile atmosphere of hospital



The local press took a keen interest in the support action

Once again this year, Lang-Hafner and AZPK have been able to offer the hospital financial help, much to the delight of its staff. And thanks to Lang-Hafner becoming a member of the Bellmer Group, the benefits

were even greater than before. With Bellmer's support, for example, it was possible to establish a local team of company sponsors to pay for the complete reconstruction and redecoration of the children's playroom at the hospital. The sponsors also bought new toys for the children. Mr. Beloglasov, general director of AZPK, together with the mayor of Novodinsk and the representatives of the local sponsoring companies, attended the new playroom's inauguration, which was carried out by Mr. Thiel of Lang-Hafner. Clinic director Mrs. Gurvitch thanked all those involved. The young patients are reported to be taking full advantage of their rejuvenated facility!



BELLMER

Gegr. 1842

Gebr. Bellmer GmbH Maschinenfabrik • Hauptstraße 37 - 43 • D-75223 Niefern-Öschelbronn
Tel. +49 (7233) 74-0 • Fax +49 (7233) 74-100 • E-mail info@bellmer.de • <http://www.bellmer.de>

Paper Technology Separation Technology