

Introductory word of the Managing Director



Dear Ladies and Gentlemen,

Let me inform you via this Newsletter issue about the current news from our company and its oncoming plans.

We are experiencing a continuing trend of sales growth: we overpassed the results for the whole year 2012 already in October. The orders for next year are secured. This is good news, especially at a time when investments in paper industry in countries such as China and India are decreasing. We have enhanced our technological background through a range of technical

improvements and by the acquisition of "know-how" from the Spanish company GOROSTIDI. This year, we have delivered to our customers, for example, a Film Press and a Shoe Press.

We have extended our portfolio of products and services by systems for storage and dosing of chemicals and we have reinforced the project management teams. Our main goal is to provide you with "turnkey" solutions as an E-P-C supplier. We gradually increase our possibilities: our largest contract amounted to nearly 70 million EUR.

The projects are realized with support from the Czech Export Bank that offers to our customers a long-term financing for a period up to 10 years with a very competitive interest rate. Hence, we can execute the projects about what our customers could only dream of till now. In September 2013, the minority share in the company PAPCEL was purchased by the majority shareholder, who now holds the 100% share of the company. The aim of this change is to accelerate the strategic decision-making in mergers as well as acquisitions and other important areas. It opens the way for us to establish new partnerships. All our actions are directed towards our strategic goal:

"Your growth is our responsibility"

- David Dostál, Chairman of the Board of Directors -



New delivery for "MONDI GROUP", Czech Republic

The first delivery for "Mondi Group" was realized by PAPCEL company in 2011. At that time, a complete system for preparation, storage and dosing of kaolin for PM No. 5 was delivered. The project of reconstruction of PM No. 7 follows now, in 2013.

The company Mondí Štětí a.s., Czech Republic, has started the reconstruction of the former PM 4 "Roto" for the production of newsprint. Since February 2014, the new project labelled as "PM 7" will produce white sack kraft liner (WSKL), machine-glazed (MSF) and white kraft liner (WKL) with the output up to 26 t/hour. The design speed of PM7 is maximally 1.000 m/min. The basis weight will range from 50 to 120 g/m², according to the assortment. The company PAPCEL has won the competition to supply the technological equipment for the chemical preparation line. In particular, this is a delivery consisting of a continuous "Jet-Cooker" installation for preparation of cationic starch with an output of 800 kg of starch per hour,

including storage capacity and a dosing unit for three technological points.

Further, it includes a double station for preparation of the ASA sizing agent, the delivery of discharging system, storage and dosing of NaOH, dosing system for aluminium sulphate, complex technology for discharging, dosing and storage of kaolin slurry and, not least, the control system for the whole chemical section. Deliveries of equipment started in October 2013, the termination of assembly is planned for the period before Christmas 2013, and the process of putting into operation and commissioning will be initiated at the beginning of 2014. The start-up of the line is expected for early February 2014.

Due to a very short span of time dedicated to the project execution, a precise coordination of all sub-operations is necessary, as well as a maximum commitment of all the team members. For the time being, this is the largest project realized by PAPCEL in Mondí Štětí a.s. Its scope surpassed even the delivery of similar chemical preparation equipment within the project of a new PM6 commissioned in 2009.



PROJECT SHKLOV, Belarus

PAPCEL extends the portfolio of its deliveries in the segment of decoration papers

In the middle of this year, company PAPCEL proceeded to the realization stage of a very important project of the construction of a complete paper plant for the production of decoration papers in Belarus. This project follows previous successful deliveries for the segment of decoration papers in Polish and Russian markets. By the scope of performed works and by its financial volume, this is the largest project in the history of the company, extending its portfolio of the deliveries of complete investment sets. PAPCEL earned its first references in the deliveries of the above-mentioned types of paper plants already in 2006, thanks to the deliveries for a significant Polish paper industry group, Malta Decor S.A. In 2009 company PAPCEL constructed an investment line for the Russian-German concern OOO Mayak-Technocell in Penza, Russia.

Delivery of a "turnkey" plant

The contract with the paper mill "Zavod Gazetnoy Bumagi", Shklov was signed in November 2012. PAPCEL is the general supplier of the construction of a "turnkey" plant, which will be located on a greenfield lot of the existing plant. The new paper mill will produce decoration paper of 60 - 110 g/m², with a capacity 30.000 tons per year (machine design speed: 1.000 m/min). The decorative paper is intended for coating of fiberboards - laminates for the production of furniture. The construction of new paper production capacity will increase the profitability of the existing production that is 40.000 tons per year of newsprint. This contract forms the main basis of the PAPCEL order back-log for the next two years.

Construction, infrastructure, engineering networks and machinery deliveries

The object of delivery from PAPCEL is the construction of a new hall, 240 x 36 m, including two overhead cranes, complete technology of the stock preparation line (incl. chemicals), paper machine including all accessories, rewinder, packaging line, all the handling equipment, roll grinder and vibration diagnostics of bearings. Complete laboratory equipment will be delivered for the inspection of production quality. The delivery also includes a new independent boiler house with an output of 15 tons of steam per hour and a grate combustion system for biomass burning, completion of the existing wastewater treatment plant, access road solution, railway siding and planting of greenery around the new building.

After the contract was signed, preparatory works and works related with building permit were initiated. Geological survey of the demarked plot was carried out; materials for the construction project and the engineering and technological project were prepared. Tenders for subcontracting the construction and partial deliveries of technology were opened. Intensive discussions were held at the highest levels of Belarus and the Czech Republic in connection with the financing of the project. This was secured via a consortium of banks Commerzbank - Belarusbank.

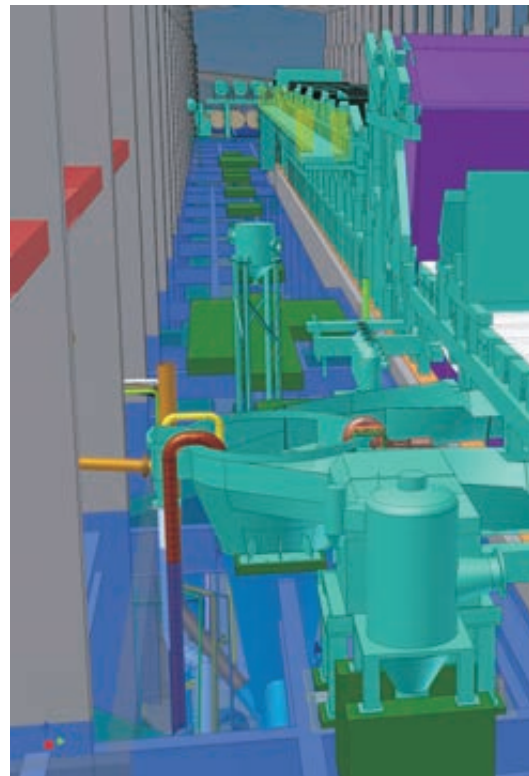
Planned project schedule

- ▶ complete delivery of equipment: until 01/2015
- ▶ commissioning: until 06/2015
- ▶ performance of guarantee tests: until 12/2015

Project management, engineering

On the basis of the tenders that were being carried out continuously, the contracts have been concluded with the individual suppliers for the performance of:

- ▶ project documentation drafting for the whole construction, including the permit procedure - Belarusian company OOO Proyecktinzhstroy (PRIS),
- ▶ project documentation drafting for the steel hall - Czech company LINDAB Buildings, s.r.o.,
- ▶ engineering and technological project documentation drafting - Czech company Erma Elan Engineering,
- ▶ project documentation drafting for the boiler house - Czech company TELO, a.s.,



- ▶ provision of the lower structure of the hall (raising of the temporary construction site equipment, ground works, connection of temporary electrical network, water and sewerage) - Belarusian company Stroitelnyj Trest № 12,

▶ REFERENCE: ▶ THE FIRST COMPLETE LINE IN OPERATION IN RUSSIA:

In 2009, the company PAPCEL successfully completed an identical project of the construction of a paper line for the production of decoration papers in the Russian Federation. In 2007-2009, the company realized a project for the Russian-German paper concern OOO Mayak-Technocell, ranking among the major producers of special papers in the Russian Federation thanks to the construction of the PM No. 5. In the course of project execution, PAPCEL delivered complete machinery, both for the paper machine, and for the cellulose processing line. The yearly line capacity corresponds to 130 tpd; bleached sulphate chemical pulp is used as the input raw material. The machine width is 2.700 mm, operating at the speed of 650 m/min.



SCOPE

OF THE PROJECT IN BRIEF:

- ▶ project documentation of the construction / documentation of the steel hall,
- ▶ construction works and engineering construction of outer and inner infrastructure, E-P-C services,
- ▶ machine-technology project drawings, boiler room documentation,
- ▶ electro project,
- ▶ machinery deliveries - complete stock preparation line, paper machine, machine approach system including complete accessories,
- ▶ delivery of the boiler, steel structures for the construction of halls,
- ▶ laboratory,
- ▶ roll grinder, packing line, etc.

***) rotor type "S2L" for the knotter "STU"**

With respect to our on-going commitment to reduce the electric power consumption of the machines in the section of stock preparation, an innovation of rotor S2L has been accomplished and is gradually applied to all the production lines of pressure screens at the position of a knotter. The main objectives of this project were, in particular, the afore-mentioned reduction of electric power consumption, the increase of flow capacity, the guarantee of minimal pulsations of the stock before it gets to the PM and also the elimination of retaining tangles of impurities on the rotor. Rotor trials carried out in our company test centre clearly confirmed the fulfilment of the objectives and it was decided to implement the new rotors in all production lines of pressure screens at the position of a knotter. In comparison with its predecessor, the new rotor has been completely re-designed. The novelties in design mainly involve the way of its mounting and the new shape of blades labelled as "Wing". Among others, it was necessary to upgrade the proper technique of pressure discharge. The tests showed clearly that the electric power consumption was reduced by **12 %** in comparison with the original rotors and the flow capacity increased by **5 %**. The last set of tests with OCC was performed with coarsely screened stock on bores of 1.8 mm in diameter only. Such a quality of stock can be seen only at customers who do not use slot screening (fine screening). The tests confirmed the resistance of the rotor against the retention of tangles of impurities and therefore it is possible to use it even with this type of technology.



- Jaroslav Mana, Designer -

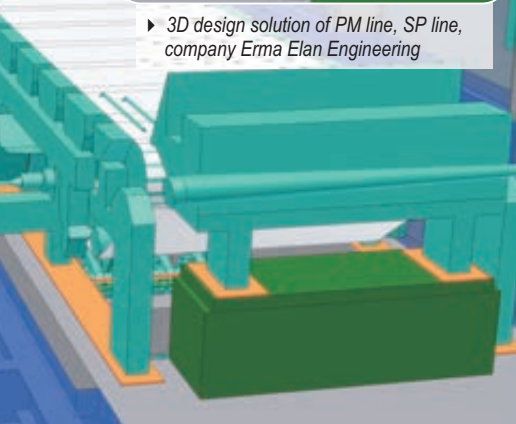
- ▶ delivery of a Kohlbach boiler - Czech company SCHIESTL, spol. s r.o.,
- ▶ delivery of the steel construction of the hall including the jacketing - Czech company LINDAB Buildings, s.r.o.

Furthermore, negotiations related to the signature of the contract with subcontractors are in progress:

- ▶ for roll grinder,
- ▶ for packaging line,
- ▶ for electrical part project - company SPbEK from Russia.



▶ 3D design solution of PM line, SP line, company Erma Elan Engineering



In the near future, we will choose a supplier of the steam condensation system, recuperation, dandy rolls, steam boxes, suction of trimmings, hood, thermo roll, calender S-rolls, multiple motor drive,

assembly of steel construction of the hall including roofing and cladding.

Technical news in the project

The project will feature a new conception of hydraulic headbox with dilution before diffuser (technology "Gorostidi") which delivers better results in the cross profile of the substance. The knotter of the headbox is equipped with a low-energetic rotor with a new design S2L*). Other innovations comprise the transfer rolls of our design in the press part for a better stability of the paper sheet and the threading via this part of the machine. For the first time, the so-called "UNO group" will be used here. It is a slalom design of the first drying group with stabilizers above the perforated lower cylinders.

Current news about project execution

Intensive negotiations with OOO Proyektinzhstroy (PRIS) are also in progress. An important deadline for the execution is the termination of the architectural (initial) project of the construction and the implementation of the consultant's report. Another significant milestone for the execution of the construction is the commencement of ground works that has been done by the company Stroitelnyj Trest № 12 since 09/2013. During the preparation of the whole construction site, it will be necessary to take away approx. 30.000 m³ of soil. Upon processing and the approval of the construction project documentation (the part of foundation plans), the selection procedure for supplier of the construction part (hall foundations and technology) will commence. The planned deadline for termination of the first stage of these works is 01/2014 with a subsequent commencement of steel structure construction since 02/2014. At the end of this year, it is planned to start shipping the first deliveries from PAPCEL to Shklov. These consist of doctors and stretchers for the wire of the drying part and the core cutter.

The machine-technology project drawings for the "Shklov" are processed by the company Erma Elan Engineering, the member of PAPCEL group of companies

The Prague design company has belonged to PAPCEL group since 2009. For the "Shklov" project, it was put in charge to process the machine- technology project drawings of the paper mill, from the basic engineering up to the implementation project, including the author's supervision at the construction site.

The works on this project started already at the beginning of 2013 and, at the moment, the materials for building designers (the company PRIS) are being finalized. In mid-November, the materials will be handed over for an expertise. Within the scope of works, our company ensures the designing and drafting of missing technological schemes. Together with PAPCEL experts, the final customer and the designer of the construction, we agreed on and approved the overall layout of machinery, beginning

with the stock preparation line, paper machine with all its particulars and accessories. Individual proposals of the machinery layout were discussed several times, both with the supplier of the equipment and the investor. On the basis of the approved layout, the layout drawings were issued and these are the basis for the foundation plan drawings. These serve as the main material for the local project organization PRIS which considers them as the starting point for the design and the particular building solution and prepares the implementing construction drawings. The projects for some pieces of equipment and the PM accessories (e.g. recuperation, ventilation of the hall, steam condensation system, packaging line and others) are prepared by specialized companies.

Erma Elan Engineering controls and monitors the clashes that could occur in the incorporation of the

specialized firms' project drawings into the overall project. Due to the tight deadlines, we started to design the piping already in June 2013. The progress of these works is hence in a very good stage and it could be said that more than 80 % of the pipelines have been laid. In order to ensure fast and quality performance of all the projecting activities, the project manager regularly attends all the inspection days and the technical negotiations with the investor, the equipment suppliers and other project organizations involved in this project. The project manager is in continuous contact with the project manager from PAPCEL in order to stay up to date about the current state and progress of the project. This is a highest priority contract and we believe it will be executed in a good quality, in the contracted deadlines and to the full satisfaction of the investor.

- Jan Ostrý / Jan Baše -

New plant for the production of packing papers in Penza, Russia is before its commissioning (yearly capacity of the paper mill: 70.000 tons)

The project of the construction of the PM line for production of packing papers follows a long-term cooperation of PAPCEL with the Russian paper industry concern OAO Mayak, Penza. After the commissioning of PM No. 5 for production of decoration papers, the construction of this modern and environmentally oriented plant ranks among the largest and the most important references of the company PAPCEL in the Russian Federation market. Thanks to the extension of production capacities, OAO Mayak has become one of the major paper producers in Penza region.

The contract with the customer was signed in June 2011. The whole project of the paper plant construction lasted for two and half years. PAPCEL, a.s. is a general supplier of the technological line for the production of double-layer paper and board, with a capacity of 70.000 tons per year, including the performance of complex construction and assembly work for commissioning of the paper line. For part of the paper machine, a second-hand machine purchased from the company Alce, Bagnoli di Lucca, Italy, is used. This machine has been modified by PAPCEL and completed with new technological units such as prolongation of the bottom wire part, top wire part with headbox, film press and starch processing systems. The company PAPCEL secures the complete engineering services for this project, including the



machine-technology project (in cooperation with the Czech company Erma Elan Engineering) and the project for the electro part. Currently, the project is in the stage of finishing the mechanical and electrical installation on the parts of the paper machine and approach system. Individual tests on the stock preparation line have been performed as well as the test for water and stock (performed in 10/2013).

Upon completion, it will be the most powerful line of the company Mayak, Penza, Russia, for production of cardboard with a maximum speed of 900 m/min and an output of up to 13.000 kg/h at the reel. The line uses a newly developed film press that will provide the customer with new possibilities in production improvement and reduction of production costs.

- Jan Gottfried,
Project manager -



The company OOO Mayak-StroyMontazh is the supplier of the construction. The construction project was processed by the company OrgBumProjekt, Ukraine. The paper line has been installed in entirely new production halls (PM, SPL halls). In course of the project, PAPCEL dispatched more than 130 trucks. It provided complete custom services connected with the export to the Russian Federation. Within the engineering services, it is a provider of machine-technology and electro project drawings and participates in the assembly inspection and is further responsible for commissioning and guarantee tests at the customer's site.

Reconstruction of the PM line in Turkey - installation of new film press

Turkey ranks among the most important sales market of the company PAPCEL. After a successful completion of guarantee tests in the paper mill Akasan Adana Kagit Sanayi in 2011 (reconstruction of the paper machine for the production of fluting, liner; among others, with an installation of a press with extended pressing zone "Jumbo" within the reconstruction of the press part), this reconstruction is the largest executed order of PAPCEL in the Turkish market.

The objective of the project was to complete a S/H stock preparation line and a S/H PM transferred from France to Turkey. The customer organized the transport to its own plant and overhauled all the S/H equipment on its

own. The whole line is designed for the production of liners and fluting, with a capacity of 270 tpd. The technology of the stock preparation line is conceived as a well-proven PAPCEL technology for the production of duplex board. The line is composed mostly from second-hand equipment acquired by the customer together with the PM. This equipment is complemented with new PAPCEL machines, particularly in the pulping and the coarse screening sections. For the stock preparation line, PAPCEL supplied a pulper LCV, 3 pressure screens STU, LD cleaners SVO, 2 periodical separators and a periodical separator PSN. Besides the preparation of the technological solution, PAPCEL also processed the bases for the line automatics and the technology project drawings.

The PM was complemented with a supply of a "Pick-Up" transfer from wire to press parts, a broke pulper under the press part, a new film press, the completion of drying part and the recuperation and steam condensation system. The first film press produced in PAPCEL was put into operation within this project and all the expected results were achieved already during the trial operation. The advantage of this equipment is a directed coating in weights of 1 - 3.5 g/m² per side, exceeding the guaranteed parameters. The results of the coating quality are very good, as expected. In addition, the customer applies colour on one side of the product, which accentuates possible defects, and despite this fact, the guaranteed parameters and the required

PAPCEL dominates the Belarus market PM line installation for the production of wallpapers in Dobrush, Belarus

In course of two years (2009 and 2010), PAPCEL concluded two large contracts with customers from Belarus for the building of paper lines. There were only six months between the conclusion of both contracts. Both projects rank among the most important business cases of the company, particularly by the volume of executed works. The contract with the plant OAO Belorusskie Oboi, Dobrushskaya Bumazhnaya Fabrika (Fabrika "Geroy Truda") was signed in September 2010. The domination of PAPCEL in the Belarussian market was validated in 2012, by the signature of a contract for the construction of a complete paper plant for the production of decoration papers (article "Shklov").

It is the first larger contract of our company in the Belarussian market. Our customer, OAO "Белорусские-обои", a company focusing mainly on production of wallpaper, is interested in the renovation of one of its existing PMs in order to increase performance and enable production of double-layer wallpaper with a white cover layer. Before the renovation, PM 7 in the Dobrush plant processed waste paper for production of single-layer fluting and wallpaper with a basis weight of 55 - 150 g/m² and a maximum output of 60 tpd. After the renovation, the machine will produce mainly double-layer wallpaper with white cover layer, with an output of up to 100 tpd. A condition for the renovation was that it must facilitate production of offset paper with a basis weight of 65 - 85 g/m².

To fulfil the objectives of the whole renovation, it was

necessary to supply a brand new stock preparation line processing waste paper, to complete the line for preparation of the top cellulose layer and to supply new approach systems for both layers. It was necessary to perform some major modifications on the PM. New deliveries included a new pressure headbox for the bottom layer, new dewatering elements for the existing bottom wire part and a complete new top wire part including a new pressure headbox. The press part also underwent significant changes. The existing first press, originally inoperative, was reinstalled (Pick-Up plus the central roll). The second press was completed with a bottom felt and a third press (Jumbo type). New vacuum system was added to the whole wet part. In the dryer section, the installation comprised "only" a new steam condensation system including accessories of the drying cylinders and the complete suction equipment, recuperation and ventilation. Apart from a double-nip soft calender, the delivery for the final part of the machine consisted of a new Pope reel, rewinder, transport and packaging line.

The whole project, in which our company acts as the general supplier, is currently in the commissioning stage. The project involves a number of our foreign subcontractors. The control system (DCS) and the preparation of the electro part project are provided by the Russian firm SPbEK. The quality control system (QCS) is delivered by the company Honeywell. Steam condensation and ventilation systems have been delivered by the Italian company Lario Energy and the complete transport and packaging line by the company Haint from China.

- Eduard Mikulka, Project manager -



quality are achieved. Another considerable advantage of this equipment is the energy reduction, since the output dryness of paper from the film press is approximately by 10 % higher than in case of a size press. This is proportionally reflected in the reduction of energy required for paper drying and electricity. A starch preparation line and a hot water preparation station for the film press were supplied together with the film press. A pressure filter for filtration of the starch for the application on the film press was developed for this technological application.

The project is currently in the stage of trial operation, and is being prepared for guarantee tests.

- Ondřej Vozar, Project manager -



Film press and its advantages - two machines installed in 2013

The function of the film press is to apply the sizing medium uniformly and in dosed quantity on the passing paper web. Two coating heads apply the sizing medium on press rolls. The press rolls then transfer the sizing medium onto the passing paper web, without forming sediments in the place of application. The equipment is placed between the pre-drying and the after-drying parts.

The first two machines of film press have been already installed and one of them has been put into operation on a machine for fluting and liner production in Turkey. The second is waiting to be put into operation on a machine for the same kind of production in Russia. In this case, the parameters of the equipment are almost the same:

Production programme:	fluting, testliner, kraft paper imitation
Substance:	90 - 200 g/m ²
Machine construction speed:	750 m/min
Operating speed:	650 m/min
Paper width:	2.550 mm
Diameter of floating roll:	1.005 mm
Diameter of stationary roll:	1.000 mm
Sizing:	up to 3.5 g/m ²
on each side, at the dryness of:	10 - 15 %
Film press control:	hydraulic

Advantages of film press compared to size press:

Better control of the medium quantity applied to paper - the applied starch is not directly dependent on its concentration, since the applied quantity is directly controlled by means of a coating bar. Thanks to this, it is also possible to apply different coats on each side. Bearing in mind a higher starch concentration (15 %), a considerable saving is achieved during the drying of

paper in the after-drying section. In this case, the paper contains by up to 50 % less water, which is reflected in the reduced steam consumption.

Another advantage is the after-drying section that is shorter by almost one half. This also means a lower installed input and reduced power consumption per 1 ton of production. Last but not least, it may be used in high-speed machines over 1.000 m/min. In addition, there are no limits for the minimum machine speed. The size press is, however, limited by the machine speed up to 800 m/min.

One film press is currently operated in the Turkish paper mill Dunapack Dentas. All the guaranteed parameters were achieved practically immediately after the commissioning, in particular the quantity of applied medium of 1 - 3.5 g/m² per 1 side. The coat is uniform over the width, which is apparent from the measured profile of weight, achieving 2 sigma = 0.9 - 1.1 g/m² whether or not the film press is operated. For a successful operation of the film press, it is necessary to maintain the equipment cleanliness. It has to be kept in absolutely clean condition and it is necessary to pay attention to this requirement.

Press rolls soiled with dry medium cause uneven coating which means uneven mechanical characteristics of the produced assortment.

- Ondřej Vozar,
Project manager -



Installation in paper mill Dentas, Turkey and OAO Mayak-Vega, Russia



New project of disassembly and displacement of a complete S/H PM line from Norway to Egypt PAPCEL increases its share of services in the field of S/H deliveries

A new sales group, oriented exclusively to the sale of S/H paper lines, has been working in PAPCEL since the beginning of this year. Besides the services in the field of deliveries of new machinery technologies, PAPCEL has been offering, for a long time, also the services in the field of second-hand machinery sale. A number of currently executed projects are combinations of deliveries of new machinery with a second-hand paper line. The purchase of older machines brings higher demands on the engineering works and the organization of tasks connected with the disassembly, installation and commissioning. However, it assures a better quality of paper operations, with substantially lower investment costs and a faster return on the invested capital.

Another project concerns the displacement of a second-hand paper line from Norway to Egypt.

In December 2012, the company signed a contract with a customer from Egypt for a complete disassembly and displacement of a second-hand paper machine from Norway. Till April 2013, the team carried out preparation and inventory works, a complete monitoring of the PM state and of all the accessories, as well as the inventory of the spare parts. Since April 2013, the team has carried out the assembly itself, packing, loading into containers and continuous shipment to the customer in Egypt. The project was completed in August, this year.

The original production of the machine was kraftliner in substance ranging between 80 - 200 g/m², annual output of 170.000 tons of paper at the maximum operating speed of 800 m/min. Wire table width is 5.55 m.

It is the largest machine which has PAPCEL dismantled in its history. In addition to work management of dismantling the company provided labeling, packaging, customs clearance and all the work associated with loading and transport of the equip-

ment in containers by sea to the final destination.

Scope of dismantled equipment:

Complete PM from headbox up to reel, two rewinders, approach system, chemicals processing system, rolls packing machine, incl. rolls transport system and core cutter. Considering the total scope of the dismantled equipment and PM 5 size, this is the largest disassembled PM in PAPCEL history - there were 179 pcs of shipped containers.

- David Gryga, Project manager -



Use of camera system in practice - for the first time during the disassembly project in Norway

In order to improve services during assembly and disassembly of paper machines, we offer our customers the implementation of a monitoring camera system. The system can also be used for monitoring of areas entrusted to us, for example, in terms of monitoring the stored materials and equipment. This is the reason why the management decided to buy an IP camera set.

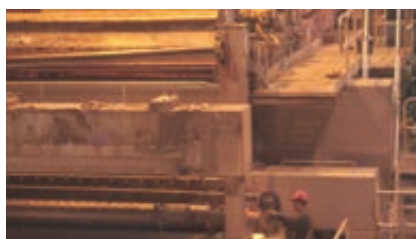
Recording with cameras and their accessories was used for a trial when disassembling the second-hand machine in Norway for our important customer from Egypt.

The pictures from the camera system can be viewed remotely by our customers, employees of PAPCEL, suppliers, etc., by means of the so-called "clients" accessing through web browsers or programs installed on their PCs or mobile devices (tablets, smartphones, etc.). Apart from that, it is possible to access the camera recording and to create and export videos and photos. Each client has its own account with access rights configured.

Advantages of the camera system:

- ▶ On-line visualisation of the works (assembly, disassembly) including recording, which provides a detailed control over the project.
- ▶ Monitoring of storage area.
- ▶ The camera system saves travel costs.
- ▶ Using the rotating zooming cameras, it is possible to monitor the technical-construction processes that are in progress and to remotely control the project.
- ▶ A solution that prevents injuries at work.
- ▶ Securing the area in terms of safety and protection of property.
- ▶ Recording of working temperature (this relates e.g. to civil works).
- ▶ As a benefit, we give our customers the recorded video at the end of the project.
- ▶ In the case of construction of an important hub, we also carry out the time-lapse recording that is used, if the customer agrees, for marketing reference materials or as a preview of the process of construction, assembly or disassembly.
- ▶ Use of camera pictures for on-line broadcasting during communication and meetings with the help of video conference and other mobile peripheral devices.

In the future, we would like to introduce the camera system for other processes such as customer training, start-up, guarantee tests, etc.



Zoom sample of filming camera from the dismantling in Norway



Disassembly of PM



Hardware of the camera system, IP camera from the PM disassembly in Norway

What can a camera system do and what are its benefits for us?

We use high resolution cameras for on-line capturing. Some of them feature a 20 times optical zoom and automatic 360° rotation. The camera system can be controlled remotely by special software. The system is designed for indoor and outdoor use up to the temperature of -40°C. The communication between the cameras and the hardware is carried out via Wi-Fi. If the signal is obstructed, for example by a crane, a UTP cable solution can be used or the number of Wi-Fi devices increased.

A new complete stock preparation line for Egypt

In April 2012, the company signed a contract with the customer RAKTA, Egypt for the delivery of a complete stock preparation line with a capacity of 200 tpd. The line serves for the processing of OCC, AOCC, OMP (used waste boards, old American corrugated boards, mixed waste paper from newspapers and magazines).

This new stock preparation line is designed for the paper machine PM3 for the production of double-layer cardboard with the option of use as a central line also for PM 1 and PM 2. The construction of this line will ensure the output and the cleanliness of raw material for the PM, quality cleaning of rejects from the line without a loss of fibres in the rejects. Another important feature is the low energy consumption of the line, including the automatic operation mode. This stock preparation line will be placed in a new individual hall with dimensions of 30 x 18 m. The building is procured by the customer.

Civil works started in September 2013. Within this project, PAPCEL is providing the complete supply of technology including piping, electro parts, cabling, low-voltage distribution boards, regulation elements and control system. The line includes conveying belt, pulper, coarse and fine cleaning, fractionation with refining of the long fraction, pumps, agitators, press (dewatering of fine and coarse impurities), low-voltage distributors, all the measurement and regulation elements, local control for each machine, central control system and spare parts.

This project features a new conception of spinning impurities ragger SN-12 that will provide more reliable continuous drawing of spinning impurities tangle from the pulper tank. All tenders for subcontracting terminated in June 2013. The supplier of machine-technology project drawings is the company Erma Elan Engineering. The electro project, including the control system project, has been drafted by the company Ingeteam.

Both projects were prepared in June 2013 and handed over to the customer as a basis for the selection of the installation companies. All assembly works are procured by the customer. Professional supervision of the installation will be performed by PAPCEL leading assemblers. The electro part and the control system will be installed under the supervision of specialists provided by our supplier (the company Ingeteam).

In June, July and August, a major part of the equipment was shipped. The shipping of all deliveries terminated at the end of September 2013. After the last delivery, the review and the handover of the complete delivery will be performed in early November 2013, together with our customer in Rakta. The assembly is planned for the period from 01/2014 to 06/2014. With respect to the schedule, the commissioning is planned for the period from 06/2014 to 08/2014. At the end of this project, the guarantee tests of the line will be performed by 08/2014.

PAPCEL is heading to the Middle East ASA sizing agents for MEPCO Co., Saudi Arabia

At the beginning of September 2013, the company PAPCEL, Czech Republic commissioned a station for preparation of ASA sizing agent in the company Mepeco in Saudi Arabia. It is a piece of equipment for PM 1 producing single or double layer liner, fluting and cover layer for plasterboards with an output of up to 15 t/h, 100 % from recycled materials. The machine can reach a speed of 650 m/min with a width of 2.9 m at the reel.

The customer's requirement was that the equipment must be controllable from the DCS of the PM, so the design of the station was adapted to this and the customer programmed the control software on the basis of the description of functions of the individual equipment operating modes. The ASA station is conceptually designed as a compact block with all elements situated on the stainless steel structure. This conception considerably simplified the installation of the equipment that only consisted in bringing the media and connecting the output paths from the station to the dosing points. The sources of the ASA concentrate are the 1000 IBC containers and the starch is brought to the station from a level tank.

The necessity to use the level tank before the ASA station resulted from the conception of the existing distribution system of cationic starch to the existing dosing points of PM 1. During the optimization performed within the test operation of the equipment, it was possible to achieve lower ASA consumption in comparison to the original technology, maintaining the prescribed sizing requirements of the cover paper for plasterboards. The control software enables the operation staff of PM 1 to modify easily and quickly the set-point of the ASA dose, the ratio of ASA and starch, to regulate smoothly both components according to the current PM 1 output, to regulate the temperature of the starch entering the emulsifier turbine, to monitor the motor flow of the emulsifier turbine, to measure the ASA emulsion flow for each layer, to summarize the consumption of ASA agent and starch, to visualize the trends of the individual regulators and the sensors of the technological values.

The customer's requirements have been satisfied. It is the first technological equipment installed by PAPCEL in Saudi Arabia and we hope that more projects in this territory will follow.

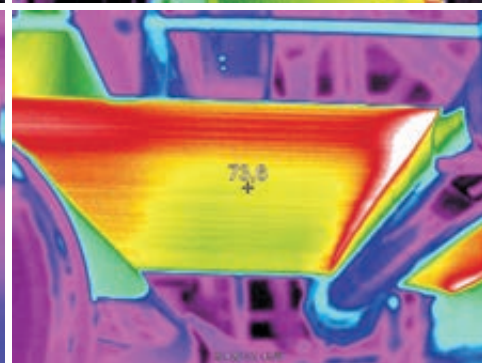
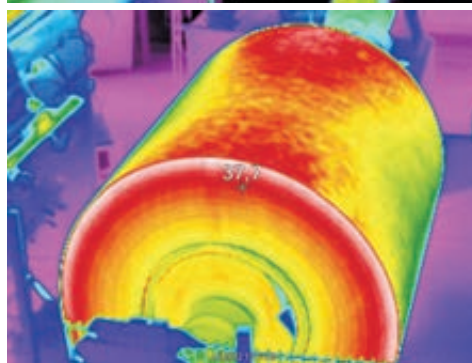


Thermographic camera and its advantages

In order to improve the inspection of the supplied equipment, the company purchased a "Fluke" thermographic camera. The device is mainly used during the installation and commissioning of technological units. Further, it can be used for defect prevention and early warning e.g.: of inappropriate behaviour of staff, lack of lubrication, or cooling of a place with a higher temperature.

This involves, in particular, the drives, the pumps, the agitators, the machines and devices using stoppers for sealing the workplace. Furthermore, we monitor the influence of the environment on the equipment and the product assortment, the distribution of temperature in the drying rolls, the heat leakage from the cover, the temperature of the stock and the electrical parts of the machines such as the heavy current switchboards. Finally, it is possible to use this camera for capturing the heat leakage from buildings. The analysis of the thermal image is carried out by software installed on a PC that is part of the thermographic camera set.

- Petr Fryčák, Product manager -



We are looking for new business partners / new sales agents or key account managers, who will provide direct sales for our company for the following countries:
(for more information about the candidate's profile please see our web site: www.papcel.cz)

Europe:

- Poland
- France

Middle and Latin America:

- Mexico
- Peru
- Chile
- Venezuela

North and South Africa:

- Republic of South Africa

Middle East and Asia:

- Iran
- Indonesia

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Thermal image analysis of the electric motor ventilation in Dentas

