There’s no doubt of the severity of this global recession. And we know that things are likely to get worse before they get better.

Turning the current global financial crisis into an opportunity and the accomplishment of this potential will depend on the adoption of appropriate policies and strategies.

Every company has been negatively affected by the economic downturn and the poor performance of many global companies in the last quarter of 2008.

This climate should be a wake-up call for us that we need to take drastic actions, not just safe ones.

This is no time for half measures. It is a time for decisive actions.

Rabih Osta, General Manager

At this moment, every company should intensify its efforts to maintain product leadership and increase market competitiveness, despite the volatile economic situation. To achieve this, they have to rebuild their business portfolio to focus on areas with longer-term growth potential and profitability.

Continued p.2
Efforts currently underway include improving its HR system, reorganizing business portfolios, focusing on customer-centric processes, recruiting and retaining global talent, eliminating unnecessary costs and continuing to foster technology and design innovations.

These initiatives will enable us to improve both growth and profitability over the long-term, regardless of the economic climate.

They should not reduce - and could even increase - their investment in R&D and branding design.

A well-trained and skilled workforce will continue to provide long returns after the current crisis has passed.

Reliable and efficient equipments and infra structure will continue to give competitiveness by lowering the production cost and reducing the machinery break down even after the crisis.

Partnerships with original equipment manufacturers (OEMs) and engineering companies are key element of the company’s product development activities to elevate its brand position.

Production units should continue investing in all sectors that will expand and become increasingly profitable once the economy is back on track.

And in this spirit I want to endorse the comment of Barack Obama’s new chief-of-staff, Rahm Emanuel, who said that every crisis represents an opportunity:

“Things that we have postponed for too long, that were long-term, are now immediate and must be dealt with.”

It is an opportunity to do the things left undone by more complacent decision makers in easier times - setting the company up for the future while addressing the immediate challenges we face. The only guarantee here is that things will be worse if we don’t act.

At the same time, they should work to improve their procurement system, which includes everything from raw materials to investment in machineries and facilities, financial services and recruitment.

Effort should be concentrated on improving the cash flow, reduce inventory, increase liquidity, optimize the supply chain management and increase the efficiency of the purchasing process.

We all know that this crisis consist the most difficult economic circumstances we have faced in our lifetimes.

But with dedicated building program, with unity and with purpose, we can emerge from this global recession stronger and more prosperous than before this global crisis began.
Phoenix Hygiene Division has already commissioned and tested an automatic feminine sanitary napkin production line to manufacture 500 thin sanitary napkins with wings per minute.

The machine line consists of online modules coupled with servomotors, drives and digital sensors to guarantee high performance and reliable output.

The line is also equipped with automatic feeding system for raw materials together with easy changeover of napkin sizes to minimize downtime.

The sanitary napkin machine will be operational in May 2009.

<table>
<thead>
<tr>
<th>Technical Specs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Products</strong></td>
<td>Ultra-thin napkins with wings for teens</td>
</tr>
<tr>
<td></td>
<td>Ultra-thin napkins with wings for overnight</td>
</tr>
<tr>
<td><strong>Production Speed</strong></td>
<td>Up to 500 pcs/min, depending on size and machine configuration</td>
</tr>
<tr>
<td><strong>Production Linear Speed</strong></td>
<td>150 m/min max</td>
</tr>
<tr>
<td><strong>Design Linear Speed</strong></td>
<td>180 m/min</td>
</tr>
<tr>
<td><strong>Product Width (min-max)</strong></td>
<td>70-115 mm w/o wings up to 165 including wings</td>
</tr>
<tr>
<td><strong>Product Length (min-max)</strong></td>
<td>210-320 mm</td>
</tr>
<tr>
<td><strong>Stacker Output</strong></td>
<td>Up to 60 cycles/min</td>
</tr>
<tr>
<td><strong>Required Air Pressure</strong></td>
<td>6 bar</td>
</tr>
<tr>
<td><strong>Required Air Flow</strong></td>
<td>~ 3,000 Nl/min</td>
</tr>
<tr>
<td><strong>Noise</strong></td>
<td>Lower than, 85 dBA</td>
</tr>
<tr>
<td><strong>Web Direction</strong></td>
<td>From left to right</td>
</tr>
</tbody>
</table>
Tissue & Paper (T&P) Division

Slat Conveyors
Phoenix Tissue & Paper Division is now offering a new product in its product portfolio: slat conveyor systems used by tissue and paper mills, as well as distribution centers.

Powerful slat conveyors are used in severely dusty conditions to transport high-impact loads and heavy abrasive materials. Made of 5mm thick overlapping steel slats attached to side chains, the system is powered by a geared motor.

Slat conveyors are custom-designed to suit customer requirements and layouts.

Power Case
Interstate Paper Industries
Sadat City, Egypt

Description
Multi-source power to supply jumbo tissue rolls manufacturing machinery, with process treatment equipment and utilities

Power Sources
- 25 MVA from high voltage transmission line, routed from Sadat national station 3 km from IPI site
- 5 MVA from the local distribution
- 8 MVA from four natural gas based generators

A power conversion substation will be built at IPI to convert 66 KV high voltage to a 11 KV medium voltage to power the MV feeders.

Automation & Drive (A&D) Division

Power Management Services
Phoenix Automation and Drive Division has begun providing sectional and turnkey solutions in power generation, transmission, distribution and management.

Scope
- Civil works
- Commissioning
- Delivery to site
- Design services
- Engineering
- Fabrication factory testing
- Installation
- Legal permits
- Study
- Testing
- Unloading

Design & Engineering Services
- Single line diagram
- Longitudinal section layout
- Sag & tension table
- Stringing chart table
- Short circuit analysis
- Temperature & loadings schedule
- Architectural & civil layouts

Phx Merkads - Power Case - ISTP

Pulp Transfer Conveyor

<table>
<thead>
<tr>
<th>Working Width</th>
<th>1.5 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>6 m/min</td>
</tr>
<tr>
<td>Angle</td>
<td>22°C (up to 25°C if required)</td>
</tr>
</tbody>
</table>

Slat Conveyors are custom-designed to suit customer requirements and layouts.

Slats have side attachments to prevent chain jamming and side guards to prevent material side fall. The system includes weighing load cells with digital display for height measurement & control.

Powerful slat conveyors are used in severely dusty conditions to transport high-impact loads and heavy abrasive materials. Made of 5mm thick overlapping steel slats attached to side chains, the system is powered by a geared motor.

Slat conveyors are custom-designed to suit customer requirements and layouts.

Phoenix Machinery provides multiple solutions in power generation, such as hydraulic and wind turbines, gas and diesel generators and bio-fuel boilers.

Whether high, medium or low voltage, we offer adequate solutions for transmission and distribution, including overhead transmission, underground cabling, conversion and protection.

Our solutions play an essential part in electricity network reliability, quality and safety. Power management is achieved through advanced automation platform, which provides essential digital solutions to the real-time automation of electricity transmission and distribution networks.

At the current stage, we conduct several professional training and establish partnerships with international suppliers in order to provide high quality products and services.
Phoenix A&D Division announces a Distributed Control System (DCS / SCADA) to complement our machinery automation. We currently adopt the latest process automation platform from SIEMENS entitled PCS7 and will acquire the ABB platform shortly.

Phoenix Machinery has managed the conception, design, execution, installation, testing and commissioning of the process automation system of our sister company, Interstate Paper Industries (IPI) in Sadat City, Egypt.

**DCS CASE**

**Interstate Paper Industries**  
**Sadat City, Egypt**

**Platform**  
V6.1 of SIEMENS PCS7

**Controls**  
Approximately 3500 digital IOs and 500 analog IOs

45 Motor Control Centers (MCCs), variable speed drives, soft starters and more

12 MW power through the MCC based on:  
- SIEMENS ET200  
- SIMOCODE  
- SIRUS 3RW soft starters  
- MICROMASTER 440  
- VACON pressure regulation drives

**Distant Communication**  
Achieved through fiber optic rings and both industrial Ethernet & Profibus as communication backbone

Phoenix Machinery handles the entire control system from the LAN (Local Area Network), the terminal bus, plant bus to the field bus. Advanced rack servers, micro boxes, routers, managed switches and firewalls have been implemented and adopted to establish high speed secure communication. Redundancy is achieved using redundant optical rings and redundant servers.

Measurement instruments and transmitters provide data to the process automation system to control product quality and plant efficiency and monitoring of field data. These analytical data are linked to process alarm and trip systems, which provide early and reliable warning of changing conditions in the process, thus, contributing to the safe operation of the plant.

Distributed Control System (DCS)

Our DCS system controls the process automation of stock preparation units for both virgin and waste lines, starting from the raw material conveying system, pulper, poire, high density cleaning, refining, deflaking, medium screening, fine screening, sand removal, floatation, dispersion, kneading, cleaning, washing and bleaching.
CNC Division

Injection Molds

Phoenix CNC Division introduces its new range injection molds for the plastics industry: cold runner and hot runner molds. A runner is the channel in the mold that conveys the plastic from the barrel of the injection molding machine to the part.

We manufacture and maintain molds after studying injection pressure, tool steel types and flow of plastic.

Hardening

Phoenix Machinery, leveraging on its facilities and expert engineers, uses special quenching oils and other cooling mediums to achieve excellent results in hardening plastic mold plates. Through heat treatment, the properties of steel can be improved, such as increased hardness or strength, or negative effects from previous manufacturing processes neutralized, such as removal of internal stresses that are generated by fabrication processes.

Software

Phoenix Machinery uses professional computer software to design and manufacture molds:

- Solidworks (CAD/CAM/CAE)
- SURFCAM (CAM)
- and Moldflow (Injection Simulation)

Mold Materials

Stavax, Impax supreme, Holdax, Corrax & RamaxS

<table>
<thead>
<tr>
<th>Thermoplastics Injection Materials Used Inside Molds</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
</tr>
<tr>
<td>HDPE</td>
</tr>
<tr>
<td>LCP</td>
</tr>
<tr>
<td>LDPE</td>
</tr>
<tr>
<td>PA</td>
</tr>
<tr>
<td>PC</td>
</tr>
<tr>
<td>PE</td>
</tr>
<tr>
<td>PET</td>
</tr>
<tr>
<td>PP</td>
</tr>
<tr>
<td>PVC</td>
</tr>
</tbody>
</table>

Runners


Cold Runner Disadvantages

The plastic waste generated is the obvious disadvantage. Runners are either disposed of or reground and reprocessed with the original material. This adds a step in the manufacturing process. Regrind also increases variation in the injection molding process and can decrease the mechanical properties of the plastic.

Cold Runner Advantages

From a different vantage point, cold runner molds are very simple and much cheaper than hot runner systems; they require less maintenance and less skills to set up and operate.

Color changes are also very easy, since all plastic in the mold is ejected with each cycle.

Hot Runner Disadvantages

Producing hot runners is substantially more expensive than producing cold runners and requires costs maintenance. Hot runners also take more skills to operate.

Hot Runner Advantages

Hot runners can completely eliminate runner scrap, so there are no runners to sort from the parts. Thus, no runners are thrown away or reground and remixed into the original material.

Hot runners are popular in high production parts, especially those with a lot of cavities.

Cold Runner Molds

In a cold runner mold, the runner is cooled and ejected with the part. In every cycle, a part and a runner are produced at the same time.

Hot Runner Molds

In hot runner molds, the runner is situated internally in the mold and kept at a temperature above the melting point of the plastic. Runner scrap is reduced or eliminated.
Service Division

Training Sessions

Phoenix Service Division offers the following training sessions either at the customer’s location or at our training facility in Safra, Kesrouan, Lebanon:

**Technical Mechanical Training**

<table>
<thead>
<tr>
<th>Training</th>
<th>Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bearing Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bearing Technology 1</td>
<td>Monday, 4 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Bearing Technology 2</td>
<td>Tuesday, 5 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Bearing Technology 3</td>
<td>Wednesday, 6 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Bearing Lubrication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bearing Lubrication 1</td>
<td>Monday, 11 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Bearing Lubrication 2</td>
<td>Tuesday, 12 May 09</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

**Heading Needed**

<table>
<thead>
<tr>
<th>Training</th>
<th>Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment Techniques</td>
<td>Monday, 8 June 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Introduction to Vibration Analysis</td>
<td>Tuesday, 9 June 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Introduction to Thermal Imaging</td>
<td>Wednesday, 10 June 09</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

**Technical Automation & Drive (A&D) Training**

<table>
<thead>
<tr>
<th>Training</th>
<th>Date</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basics of Electricity &amp; Sensors</td>
<td>Wednesday, 13 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Basics of Motors &amp; Drives</td>
<td>Monday, 18 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>Basics of Automation</td>
<td>Monday, 25 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – Basics of Micro Automation S7-200</td>
<td>Tuesday, 26 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – Automation S7-300 / S7-400</td>
<td>Wednesday, 27 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – Human to Machine Interface – Protool</td>
<td>Thursday, 28 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – Human to Machine Interface – WinCC Flexible</td>
<td>Friday, 29 May 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – MICROMASTER</td>
<td>Monday, 15 June 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – MASTERDRIVE VC</td>
<td>Tuesday, 16 June 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – MASTERDRIVE VC</td>
<td>Wednesday, 17 June 09</td>
<td>6 hours</td>
</tr>
<tr>
<td>SIEMENS – SINAMICS S120</td>
<td>Friday, 18 June 09</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

Please book your training at  info@phoenixlb.com
Energy Facts

Renewable energies play a minor role in the energy mix in Lebanon.

Usage of wind energy is carried out by individuals and wind enthusiasts. Large scale wind farms do not exist, despite evidence of the presence of some sites with average wind speeds of 8-10 m/second, mainly in the north of Lebanon.

The real existing potential in renewable energy in Lebanon is in solar thermal collectors. Using solar systems for hot water space heating is very positive, knowing that we benefit from more than 250 days of sunshine per year with a yearly average above 5 kwh/m².

Market penetration, however, is still very low; there is potential before reaching market saturation between 600,000 m² and 2,000,000 m².

In pursuit of ecological and economical energy solutions, Phoenix Energy Division is installing weather station data loggers to help create a wind map of Lebanon, a necessary step in locating appropriate sites for wind turbines.

In addition, the data logger is capable of collecting and storing data up to one year. Phoenix Energy Division will install the weather stations at designated sites and collect the data every three months, developing a wind map of the specific regions from season to season.

Join us in creating a wind map of Lebanon!

Events

Tissue World 2009 – Nice, France


Phoenix team met with key people from major tissue mills in the Middle East & North Africa (MENA) region and Europe regarding the latest transport conveyors. Tissue mill representatives also viewed our portfolio of used machines, such as complete rewinder lines for bathroom toilet rolls and kitchen towels, as well as industrial rewinders for jumbo tissue rolls, facial tissue interfolders and napkin machines. In addition, European OEMs initiated relationships with Phoenix to source CNC parts.