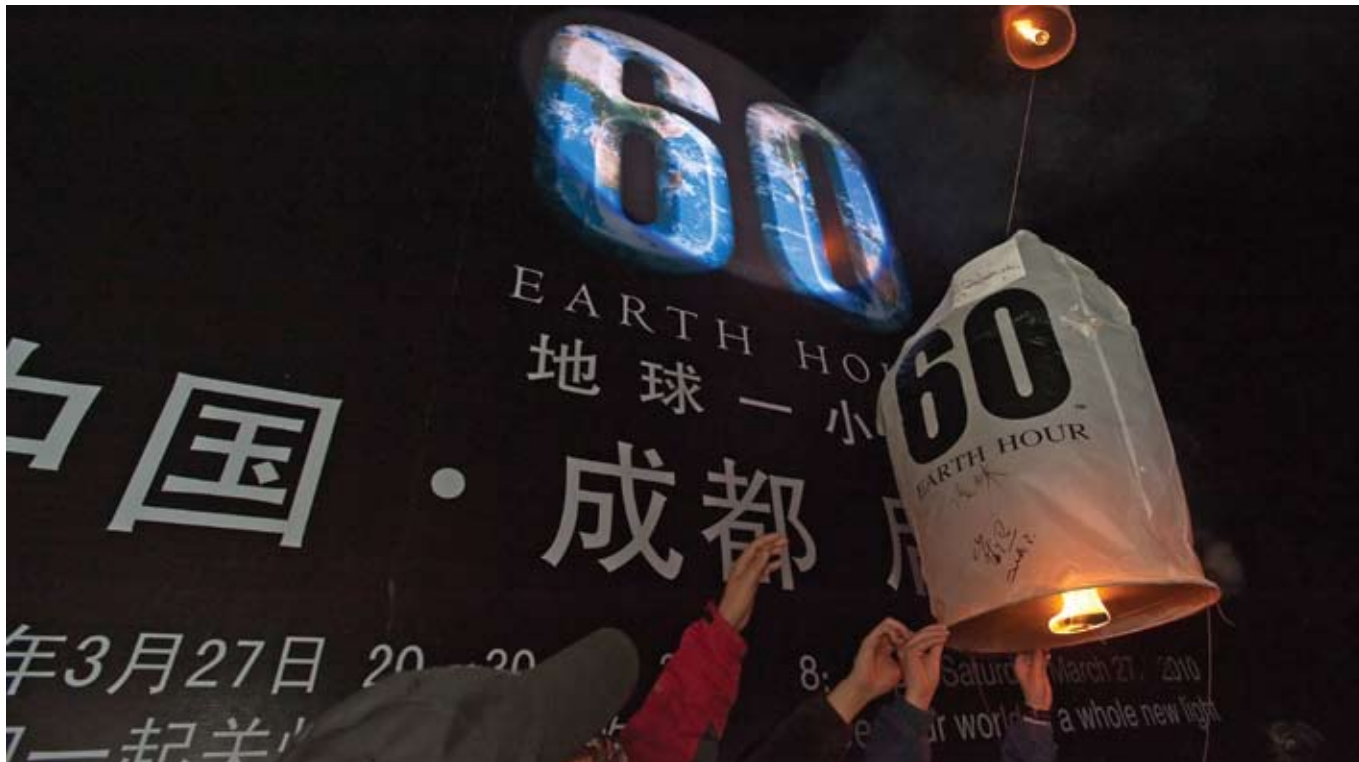


China steps up to green challenge



In Chengdu, people gathered together to light candles and raise paper lanterns to commemorate Earth Hour

This year, Chinaplas has adopted the theme "Green plastics. Our goal. Our future". The organisers Adsale have lined up experts from the industry and academia to speak about the development and applications of green technology between 19 and 21 April.

"Green Corners" will be set up at various points around the exhibition centre to showcase exhibitors' products that are energy-saving or sustainable. For example, the plastics products may be recycled or are produced from renewable raw materials. Visitors can expect to see "green" plastics and machines that use less energy or gives off lower emissions.

Protect the environment, energy-saving, recycle and re-use are some terms that might be often heard at this year's show.

At 1.3 billion, China is the world's most populous nation. It is also the world's top manufacturer of finished goods. Last year, China produced nearly 45 million tonnes of plastics products, an increase of 10.64% from 2008. The China Plastics Processing Industry Association (CPPIA) announced recently that the plastics industry's output has exceeded RMB1 tri (US\$146 bil).

China is not likely to be looked upon positively during a discussion on sustainable development or environmental protection. China was under intense media scrutiny, especially in recent years, for poor environ-

Chinaplas comes back to Shanghai again this year. Around 75,000 visitors are expected this year but the focus this time is the environment, not the economy

mental practices, like hazardous waste being dumped into lakes and rivers, or severe air pollution from factories and motor vehicles.

Nevertheless, China takes sustainable development very seriously. The Germany-based World Wind Energy Association (WWEA), for instance, called China the locomotive of the international wind industry because it is the largest market for new turbines, having added 13,000 MW in 2009 alone and doubled the number of installations four years in a row. China is the number two in the world in terms of total capacity, just ahead of Germany and behind only the USA.

On the solar energy front, China is the top manufacturer of photovoltaic panels. A large proportion of these (reportedly 95%) are designated for export but the Chinese government is keen to tap on the sun's energy. It plans to harness solar energy across the country, especially in the Northwest which is said to receive over 2,000 hours

of sunlight each year.

Plastics processors, like many businesses in China, face rising cost of raw materials and energy. Switching to energy-saving machines and reducing the use of raw materials not only makes economic sense, it is also beneficial to the environment.

On 27 March this year, millions around the world commemorate Earth Hour by turning their lights off for an hour at 8.30 pm local time. The movement began in Sydney, Australia in 2007 when 2.2 million homes and businesses reportedly switched their lights off to stand against climate change.

This year, the Forbidden City in Beijing was captured with its lights off. In other parts of China, different activities were carried out to raise awareness of Earth Hour and care for the environment.

Does turning the lights off for a mere hour indicate that China is cleaning up its act? Maybe not, but perhaps this is her way of saying: We are going to give it a try.

B+C Extrusion

Hall E3, Booth J01

A series of LeanEx machines will be exhibited by **B+C Extrusion** for the production of various PO pipes with diameters from 16 mm to 63 mm. Extrusion die sets and calibrating sleeves are developed based on the rheological properties of each specific polyolefin material. The line speed is 25 m/min for producing PE-RT pipes in the dimension of 20x1.9 mm.



This machine is a 60 mm single-screw extruder with a L/D ratio of 30D which is able to deliver an output of 320 kg/hour for HDPE pipes. It is motorised by a 90 kW DC motor and equipped with a small automation control system built by B&R, featuring a 5.7'' TFT color touch-screen.

PO pipes have extensive applications in a variety of sectors; the LeanEx63TM features flexibility and line competence with two different models of twin-belt haul-off for high-speed extrusion.

The Flying Knife Cutter cut pipes of up to 40 mm, whereas PC63 provides another solution for pipes of up to 63 mm. It features the used for high line speeds which also offers another advantage of cutting up to wall thicknesses of 13 mm pipes. With its saw carriage driven by an AC servo motor with toothed belts and synchronised with haul-off by means of a digital controller, which ensures high accuracy in cutting lengths.

Borouge

Hall W2, Booth G01

Customer-focused innovations for infrastructure, automotive and advanced packaging applications based on **Borouge's** Borstar process technology will be presented at Chinaplas.

Through cooperation with OEMs and new catalyst technologies such as Borealis' proprietary Borstar technology and advanced compounding techniques, Borouge offers a wide range of innovative automotive plastics solutions. These include solutions for air intake manifolds, door handles, bumpers,



front end modulus, dashboards, and door and rocker panels.

In the advanced packaging category, Borouge offers an innovative range of plastics solutions utilising proprietary technologies such as Borstar process technology and Borealis Nucleation Technology (BNT). With their economical processing, weight saving potential and differentiated properties, Borstar enhanced PE and PP solutions are suitable for applications that require combinations of mechanical properties such as stiffness, durability and excellent crack resistance. This results in improved bubble stability and improved film converting for flexible packaging as well as reduced cycle time for rigid packaging.

Borouge provides pipe solutions for drinking water and sanitation, gas distribution and industrial applications and domestic heating and cooling systems. Borouge solutions are also found in the wire and cable industry for challenging Extra- and High Voltage cable applications, as well as Medium and Low Voltage energy transmission and distribution cables, building wires, and communication wires.

Dr Boy

Hall E1, Booth F01

Dr Boy will present two innovations at this year's Chinaplas.

Cable binders will be produced in a 24-cavity mould on a BOY 90 E (900 kN clamping force). The servo-motor pump drive renders the largest BOY injection moulding machine more economic, faster, quieter, and more precise. The BOY 55 E (clamping force 550 kN) is also available with this drive technology.



Compared to fully hydraulic injection moulding machines with electronically controlled, variable displacement pump, the energy requirement is reduced by more than 50 percent. It is even below that of electro-mechanical machines which, incidentally, also have a markedly higher connected load.

Further advantages of the compact machine are the small footprint because of the cantilevered, two-platen clamping system and the innovative Procan Alpha. This patented control ensures precision and repeatability, combined with ease of operation.

Dr Boy will also show the compact BOY XS and BOY XS V, which are newly developed for micro and sprueless, single-cavity injection moulding. The basic idea of this modular production concept is to use simple, inexpensive single-cavity moulds which can easily be exchanged and thus achieve a fast, effective, and more flexible production. Here, the medium-sized company perceives clear advantages of smaller machines as compared to larger ones.

During the four-day event, the BOY XS will produce highly precise, technical parts. A small nail file will be produced on the BOY XS V insert moulding machine.

The BOY XS is suitable for continuous operation under tough industrial conditions. Furthermore, the BOY XS is as compact as a table-top model. Besides precision and repeatability, the XS series offers easy access to the plasticising unit, mould area, and ejector. This is also enabled by the two diagonally arranged tie bars.

Coperion

Hall E1, Booth K41

Coperion will showcase their STS advanced compounding extruder that has achieved an improvement by equipping a motor and a gearbox rated for the required torque.

The compounder is meant to be user-friendly, reliable and has a wide range of applications with easy maintenance. It comes with a "easy-to-learn" push button or "Programmable Logic Controller" (PLC).

The STS advanced series puts together a largely standardised machine with the processing acquired by Coperion. The increase amount of material passing through the extruder barrel improves the mixing performance by reducing the shear stress and lowers the melt temperature.

Dow

Hall W2, Booth J41

"Think Solution, Think Dow" will be the theme for **Dow** during Chinaplas this year. They will

feature market applications in areas such as food and specialty packaging, health and hygiene, industrial and consumer packaging, durables and consumer goods and transportation.

Designated zones will be showing various product and technology solutions and their performance and differentiation.

One of the highlights will be the applications for the new DowLex NG (Next Generation) LLDPE resins that was launched in August 2009 in Asia Pacific. Based on the technology behind the original DowLex resins, the latest developments offer film converters better optics and improved downgauging potential with good processability.

Erema

Hall W1, Booth B51

The new **Erema** TVEplus machine is designed to broaden the reach of profitable plastics recycling by increasing the amount of print and other contamination that can be efficiently removed from plastics scrap.

Erema developed the TVEplus, an upgrade of the classic TVE series, to facilitate recycling the increasingly more heavily inked and additive laden plastics packaging common today, allowing transformation of this waste into the valuable, near virgin quality pellets.

In the basic Erema recycling system, scrap material is fed into a large vertical cutter/compactor unit that uses friction to compress, reduce the size and prewarm the plastic material. An advantage of the large cutter/compactor is the ability to dynamically blend scrap materials while they are in the chamber. Scrap, inconsistent in its material make up and amounts, is blended to produce a steady, predictable melt. The preheated, densified material is then fed directly to the extruder screw. Compression and melting occur gradually, at a precisely controlled temperature, adding minimal heat history to the reclaim.

In the EremaTVE series melt filters are placed ahead of a degassing system. The TVE has proven over more than a decade of use to be a capable handler of large amounts of contaminants at higher production rates and quality than other vented extruders. The TVEplus is the result of modifications of the TVE in design and process engineering that allows result in an increase in degassing efficiency and an improved homogenisation process.





EREMA tests of the TVEplus with heavily printed packaging film showed an increase of approximately three times the efficiency at removing gases from ink, binding agents, other additives and incidental contaminating materials. Even traces of these materials that survive less advanced reclaim processes can cause bubbles, blisters and film tears rendering finished recycled products unusable.

The EREMA TVEplus series features a number of configurations able to handle throughputs from 250 to around 2,500 kg/hour.

Husky

Hall E2, Booth F01

Husky will be displaying solutions for the beverage packaging market, including a HyPET system optimised for PET perform manufacturing, with a HyCAP system for beverage closure manufacturing.

The process and production monitoring software, Shotscope NX, offers beverage packaging work cell so that elements including neck finish, bottle and closure works together as a package. This software will be demonstrated during the show.

In addition, Husky's Hot Runner and Altanium Controllers will be displaying their technologies such as Ultra nozzles, UltraSync plate actuation, Pronto configurable systems and integrated Altanium temperature controllers, to show their experience with applications ranging from low cavitation high pressure moulds to high cavitation medical molds.

Kraiburg TPE

Hall W2, Booth C61

Kraiburg will highlight the new Thermolast M series of products at Chinaplas this year. This range offers customers in the pharmaceuticals and medical markets safe and economical handling of materials that will later come into direct contact with media that ultimately pass into the human bloodstream.

Certificates are issued as per all the usual medical technology approval standards, such as DIN ISO 10933/5/10/11 and USP Class VI, to attest to the suitability of these compounds for direct contact with medica-

ments. Furthermore, extraction studies conducted by impartial agencies confirm the quality of the Thermolast M compounds.

Kraiburg offers products in Asia that satisfy the same safety and quality standards as in Europe. The focus on the Asia-Pacific region continues to be a major thrust. The TPE manufacturer has a production facility at Selangor in Malaysia.

Meilian Chemical

Hall W4, Booth D55

Meilian Chemical, located in Shantou, is a manufacturer of PE-based masterbatch, focusing on black, white, colour and additives for a wide range of applications.

The company has 8 production lines, turning out 20,000 tonnes each year.

Meilian Chemical counts on competitive pricing, consistent quality and good service to win customers at home and abroad. Domestic customers are mainly from the South, the East and the North of China while it has business partners in the international market from Europe, North America, South America, Africa, Oceania, Southeast Asia and the Middle East.

Meilian Chemical is a member of the Masterbatch Committee of China's Dyestuff Industry Association.

Negri Bossi

Hall E2, Booth B41

The latest addition to the **Negri Bossi** range is the new Canbio VS, a series of compact, ergonomic and precise machines. The VS series is designed to be better than the V series, which means improved reliability, user-friendliness and easy maintenance.

The machine offers several new features for example, the patented plasticising unit fast changeover system, off-line low pressure oil filtration and the innovative Columbia control. The development of the compact twin-cylinder injection unit, despite the platen and inter-column clearance dimensions, makes the new Canbio VS even smaller than the previous V series.

At the fair there will be a 130-tonne VS press using a single-cavity cup mould and a 250-tonne VS press with a 2-cavity beer glass mould.

Reifenhäuser

Hall E1, Booth D05

Since **Reifenhäuser** bought over Kiefel in August 2009, the new company Reifenhäuser Kiefel Extrusion will exhibit for the first time at Chinaplas. In addition, Reifenhäuser Extrusion,

Reiloy Metall and ReiMotec will be demonstrating their extrusion technologies.

Reifenhäuser's strategy is to offer energy efficient machines. For example, the company won a contract to deliver a high-end blown film line to a key customer as well as the sales contract for an ultra-modern cast film line for an important customer in Indonesia. In the same period, two additional RHS blown film lines were sold to Australia.



The company plans to focus on Asia as it thought this region has coped with the recent financial crisis in a better and faster way, which would then fuel the growth for the rest of the world. Reifenhäuser sees economic recovery here as investment activities for value-added and high performances output rises, setting the stage for long-term stability of production volumes.

Sacmi

Hall E2, Booth B51

At Chinaplas, **Sacmi Imola's** closures and containers division will present the CCM48S system for the production of mineral water, hot filling and CAF (cold aseptic filling) caps that is able to produce up to 1,200 caps per minute with just 48 cavities.

This technology can be used for the production of S30-14-type single-piece HDPE



caps with a diameter of 30 mm, weighing 1.9 g. Sacmi aims to show more competitive advantages that compression technology offers to beverage plastic cap manufacturers.

In addition, Sacmi's automation and inspection systems will be presenting the Surveyor 900, a laboratory X-ray inspection machine that allows plastic bottle cap manufacturers and/or designers to check, using non-destructive non-intrusive analysis, for correct cap matching, performance and seal.

Songwon

Hall W3, Booth L61

South Korea's **Songwon** eyes the rapid growth of the Chinese additives market and positions itself to supply products that enhance and improve specialty stretch fibres, PVC and ABS.

The company recently announced the establishment of Chemservice Asia with regulatory services provider Chemservice to provide regulatory affairs and international chemical control legislation consultancy services to Asian companies.

Jongho Park, Chairman and President of Songwon Group said he is committed to invest further in China to the criteria of Chinese customers.

SML

Hall W1, Booth C51

Over the years, PET has become one of the packaging industry's most successful polymers and boosting the demand for **SML's** in sheet extrusion lines.

The performance demand for such lines are rising and a typical benchmark is provided by the relative output 1 m sheet width. At present, SML lines can handle 1,400 kg/hour per metre (i.e. 2,100 kg/hour per 1,500 mm of sheet width).

In order to achieve this output, the shell thickness of the cooling rolls is optimised, where the maximum diameter of the cooling



rolls is increased (can now exceed 700 mm), and the internal water flow rate improved.

SML improves extrusion performance through the use of the innovative roll stack. Nip force, drive power and water capacity is available for the handling of an output of up to 3,500 kg/hour per 2,500 mm of sheet width.

Wittmann

Hall W1, Booth A01

Wittmann will be displaying the energy-saving EcoPower injection moulding machine series for the first time in Asia.

The new EcoPower features a compact, beltless injection unit and a clean clamping unit with direct drive. The braking energy of the drives, which is normally either lost or recovered by an elaborate, costly system, is utilised by the EcoPower within the machine.

For maximum customer benefit, this series comes with a modular concept and is pre-configured. A variety of machine concepts are available, depending on customers' requirements. The machine concept consists of a basic platform that can be supplemented by comprehensive extension packages according to individual needs.

At Chinaplas, the EcoPower 110/350 will produce a lid from PP with a 2-cavity mould supplied by HTW. A Wittmann W811 robot subsequently transfers the finished parts to a conveyor belt.

In addition to the standard version, in which the robot is operated via a manual control panel, a version with an open control system architecture has been created, which makes it possible to integrate the control systems of the robot and the temperature controller into the Unilog B6 machine control system – peripheral equipment that can now be completely operated via the visualisation of the machine's control system.

On a second hydraulic injection moulding machine, an HM 80, the production of a PP business card box with a mould supplied by Hasco will be shown. A Wittmann Scara robot from the W7XH series removes the finished parts from the side opposite to the operator panel.

