PLASTICS & RUBBER news

JANUARY 2018

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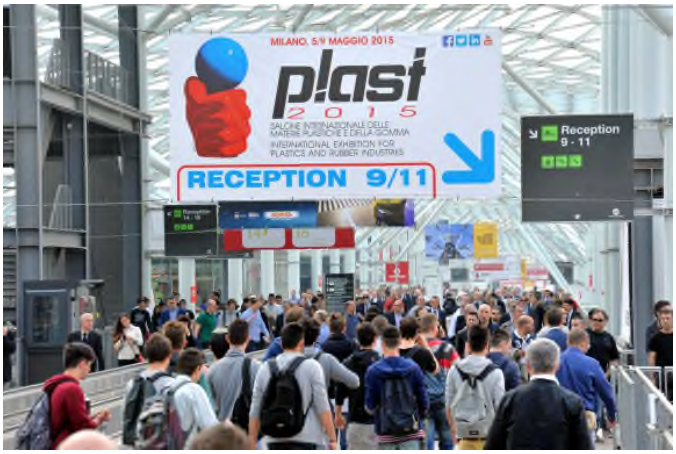
PLAST 2018: ORGANIZATION IN FULL SWING



Visitor preregistration opens on 15 January for PLAST 2018-International Exhibition for the Plastics and Rubber Industries taking place at FieraMilano in Rho-Pero from Tuesday 29 May to Friday 1 June 2018.
By preregistering (on the visitors page of plastonline.org), operators intending to visit the exhibition can request two free admission tickets to PLAST 2018 and to each of the other exhibitions in The Innovation Alliance (IPACK-IMA, MEAT-TECH, PRINT4ALL, INTRALOGISTICA ITALIA).

Given the strong international nature of PLAST – there were 700 non-Italian exhibitors and over 18,000 operators from an impressive 115 countries at PLAST 2015 – a high number of visitors from abroad is expected this year. The PLAST Office offers them logistic support (thanks to an agreement with the travel agency Gattinoni Travel Network), including assistance in obtaining entry visas for Italy, where necessary.
Thanks to the collaboration of ICE-Italian Trade Agency, delegations of reputed buyers are being invited from some thirty countries. An intense B2B meeting programme with PLAST 2018 exhibitors is being organized for these operators, who represent companies in various segments of the plastics and rubber processing industry, from extrusion and blow-moulding to injection moulding, thermoforming and recycling.

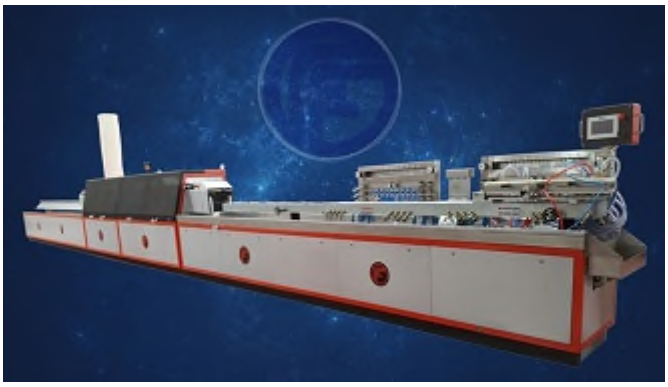
"With five months to go before the exhibition," states Alessandro Grassi, President of Promaplast srl, the organizer of the event, "more than eight hundred direct exhibitors have confirmed their participation in PLAST 2018, which will occupy fifty thousand square metres. Three years ago, at the same relative point in time, there were approximately seven hundred eighty exhibitors and just over forty-six thousand square metres of exhibition space.
"Exhibitor expectations," continues Grassi, "are thus quite positive, with growth particularly in the number of foreign exhibitors, providing further confirmation of the growing international stature of the exhibition, which will be Europe's most important tradeshow for the sector in 2018, as underscored by the continuing sponsorship of the Italian Ministry of Economic Development.
He concludes, "This all in a general and sectorial economic context that continues to demonstrate concrete signs of recovery: exports of Italian machinery were up 16% in January-September 2017, with an estimated full-year production value for the entire sector at 4.5 billion euros (outperforming the pre-crisis record of 4.25 billion in 2007). These figures give us cause for hope in 2018 and for the outcome of PLAST 2018."

The upcoming edition of PLAST will also feature three satellite fairs dedicated to three industries of excellence in the sector: RUBBER (staged for the third time, devoted to the whole rubber industry), 3D PLAST (which returns for the 3D printing and related technologies) and PLAST-MAT (the new show focused on innovative plastics solutions).
The next months are filled with important specialized tradeshows around the world, where PLAST 2018 will have a presence, continuing its promotional roadshow for potential visitors:

PLASTINDIA (Gandhinagar, February 7-12)
TIRE TECHNOLOGY EXPO (Hannover, February 20-22)
PLAST ALGER (Algeri, March 11-13)
PLASTICS & RUBBER VIETNAM (Ho Chi Minh City, March 20-22)
PPP NIGERIA (Lagos, March 27-29)
CHINAPLAS (Shanghai, April 24-27)
NPE (Orlando, May 7-11).

The plastonline.org website is constantly updated with news, figures, and useful information for exhibitors, visitors, and the media. In particular, exhibitors' news will be published regularly, providing previews on novelties displayed on show.
www.plastonline.org

FRIUL FILIERE TURNS 40 AND LAUNCHES FUTURA40



On January 17, 2018 Friul Filiere turned 40 and marked this landmark birthday lauching Futura40, a new extrusion line.
As explained by the manufacturer, the new solution encapsulates the company's four decades of experience, whose technological value is reflected in its modern aesthetics, attractive design and "minimal" style. Its every last detail stems, primarily, from the company's attention to the needs of the processors and the experiences of the operators who experience the production phase first hand. Futura40 is designed to be the perfect complement to extruders and other equipment developed by Friul Filiere, allowing the company to turn out complete, high-performance plants, and respond with maximum flexibility to processors who want increasingly customised turnkey systems for producing pipes and special profiles.

Sizing die holder bench

Along with the die, the holder bench accommodating the sizing die system represents the technological heart of every high-performance extrusion plant. In view of this, the greatest attention has been dedicated to the development of technical solutions capable of improving the production process and the man-machine interface, such as, in particular:
-the arrangement of the couplings for the cooling system has been improved in terms of accessibility and the connection of the piping required for the process has become more practical;
- the holder frame is higher, about one metre, and it has also been enlarged in order to house all the mechanical and electrical components necessary for its operation;
- the extrusion axis has been arranged in such a way as to symmetrically divide the holder bench along its longitudinal axis, while the table has been designed for accommodating any type of sizing die by means of snap-on couplings;
- the new arrangement of the electrical and electronic components of the entire system has been updated in conformity with CE standards, making it possible to obtain the Risk Certificate;
- the water distributors with visible return are positioned in front of the operator to continually monitor the regular water flow through the sizing dies;
- a recessed skirting panel on the base covering the entire front part of the downstream equipment makes it possible for the operator to approach the bench more easily;
- the bench is fully galvanized and undergoes a special treatment to ensure durability;
- optimised energy saving thanks to new-generation pumps regulated by an inverter - which allows the motor to absorb the minimum energy necessary during each production stage, regulated according to the vacuum needs - and mounted on an independent support in order to prevent the risk of any vibration affecting the particularly sensitive profiles, as well as to facilitate the inspection of the pumps themselves.
- the protection and safety systems have been upgraded and their reliability improved, while the electric panels have been re-positioned on the frame in accordance with the latest CE standards.

Haul-off

In order that the passage of the profile produced during the process occurs perfectly at the centre of the machine, the haul-off maintains the same extrusion axis as the sizing die holder bench. The guard door is no longer the sliding type and, thanks to the perforated metal sheet, it is more sturdy and practical and contributes to modern design of the haul-off. In order to fully exploit the machine potential and to permit the access of profiles of widths exceeding those of the plugs, the entire transmission system has been upgraded with the optimal positioning of the motor itself.

Cutter

Cutting represents a delicate process during the production of complex profiles and piping, which need to comply with increasingly stringent quality standards, and even more so in the case of very fast extrusion speeds. Friul Filiere provides turnkey projects for complete pipe and profile production systems at speeds of even over 250 m/min. In order to be able to meet the exacting requirements involved, a brushless motor is used, which is more accurate and reactive in terms of movement control, with the carriage

sliding horizontally. The final result is optimal also thanks to the use of Friul Filiere software for easy programming of the cutting operation, with settings for speed, time and a host of various other parameters.

Profile collection bench

The profile collection bench is ergonomically aligned with the extrusion line and the table slides horizontally to improve access for the collection of profiles.

Software

The line features a PLC and proprietary software which permit the centralized control of the entire process. The software also provides the possibility of incorporating a remote assistance service thanks to the Ethernet installed on the machines. As a result, in the event of any production anomalies, customers everywhere in the world can request remote assistance in real time from Friul Filiere engineers.

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AMUT PLANT TO THE TEXAN CARBONLITE

"We are glad to have scored another top reference in the Northern America plastic recycling market. The CarbonLite PET recycling project comes after the two mega PET recycling plants that Amut supplied in North America to Unifi in Reidsville, North Carolina, and to PETStar Coca-Cola Mexico", stated Piergianni Milani, the president of Amut Group.
The new CarbonLite recycling facility, located in Dallas, Texas, started operations in September 2017, as per the schedule. The washing line supplied by Amut has the state of art of the technology and is the second plant of this size in operation in the Usa, capable of producing over 12,000 pounds per hour of highest quality PET from MRF post-consumer bales. Leon Farhanick, the president of CarbonLite, declared: "I'm very satisfied with quality, punctuality and technology. Among the many OEM we had in this project Amut is the one that pleased us best".

The 250,000-square-foot bottle-to-bottle PET recycling plant processes more than 100 million pounds plastic bottles annually and the Amut washing section is capable of reaching 6 metric tons per hour (the Dallas facility will double the company's annual capacity of food grade PET) and permits the transformation of old plastic bottles into PET resins, flakes and pellets that can then be used to produce new beverage bottles and other sustainable products. Closing the loop on recycling and increasing the sustainability of the PET containers.

"CarbonLite management has over a decade of experience in PET wash lines and selected the Amut solution to face the new challenges in the market conditions for their Dallas operations. Considering that Amut is one of the major OEM supplier for their system, we integrated our De-Labeller Amut's patent technology and as well the wet whole bottle pre-wash", stated Anthony Georges, the president of Amut North America.
Georges further discussed how the Amut De-Labeller won the prestigious Plastic Recycling Innovation Award from the APR (Association of Plastic Recyclers) in 2017.
"When you are dealing with co-mingled MRF bottle bales you need to be able to detect and remove all non-PET and colour PET containers prior to entering the final washing process. By utilizing our double stage we perform with the first De-Labeller the dry cleaning action able to detach most of the shrink sleeve labels, while the second unit is a wet De-Labeller process to pre-wash the whole bottles and reduce wear effect on grinders blades. This wet bottle washing technology utilizes the filtered recycled flake washing water therefore it does not increase the consumption of fresh water used in the complete cleaning process, and contributes to the elimination of outside dirt as well as remaining labels on the whole bottles", Georges continued.

Critical to the Amut technology is that the bottles stay intact through these two machines and are not damaged during the actions of De-Labeller therefore improving efficiency and the functionality of the following automatic sorting equipment so that the non-PET and colour PET can be easier removed from the clear PET bottle stream. The clear PET bottles will be washed directly in the Amut wash flake system. Amut scope of machinery and technology supplied includes as well, the wet grinding system to turn bottles into flakes, along with two of the AMUT patented Flake Friction Washers, and two of their newest advance technology "Sink-Float" separation machines, which are able to capture the polyolefin caps so that these cleaned caps can also be valued.

The whole process is engineered to increase the grade quality of the clear PET flakes which comply with the most demanding bottle-to-bottle applications, optimizing the value of every bale, while minimizing operational costs, fresh water usage, energy and cleaning agents.

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CLASS A VEHICLE WINDOWS MADE OF POLYCARBONATE

For the two-component injection molding of the rear-quarter windows of polycarbonate for the Buick GL8 and GL8 Avenir MPVs (multi-purpose vehicles), Chinese Tier 1 supplier Shentong uses two hot runner systems from INGLASS-HRSflow. One is for producing the transparent first component and the other for the partial, seamless overmolding with a dark-colored PC around the edges. Both systems integrate the programmable FLEXflow valve gate technology, which enables the manufacturer to achieve the outstanding surface quality specified by the OEM for these parts. With dimensions of 1,200 x 460 mm, it is currently the world's largest moulding of its kind. Furthermore, FLEXflow helps to ensure that the windows - which are around 40 % (3 kg) lighter than comparable parts made of glass - have very high fitting precision for unproblematical assembly with minimum warpage and very tight tolerances. During the course of the project development, INGLASS-HRSflow supported the converter with extensive Moldflow simulations during optimization of the production parameters for these large, asymmetrical parts.
The two hot runner systems developed by INGLASS-HRSflow each have a hot runner manifold with ten servo-electrical drives for the nozzles with conical valve gate, integrated into the clamp platen. The FLEXflow technology from INGLASS-HRSflow used to control the sequential injection process makes it possible to coordinate every single individually driven needle precisely to the process and to open and close it with selectable speeds. This allows absolute precision control both of the melt flow in the individual hot runner nozzles and of the volume flow in the overall cavity so that it is filled evenly and homogeneously. Thanks to the gentle opening and closing of the needles, there is none of that undesired pressure drop or changes in temperature and flow velocity as can occur with conventional cascade injection moulding during the sequentially abrupt switching on of the hot runner nozzles. This thus also eliminates unsightly flowmarks on the moulded part. The overall result is Class A moulding surface with no optically relevant defects. The main applications of the FLEXflow technology are the injection moulding of high-quality complex automotive parts including large-area exterior and interior components such as spoilers, front ends, instrument panel supports, door trim and headlights as well as wide trunk taillights, plus the rear-quarter windows described here made of transparent polycarbonate.

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