



AMUT

vegetable fibres. Thanks to the low revolution speeds and high torque of the screws, it is possible to extrude at high pressure and reduced shear keeping the melt temperature low so as to prevent the degradation of vegetable components. Another machine on display is an EA 75 single-screw extruder for the production of small pipes in special

high-quality components and software fully developed and manufactured by the company. The line also includes a hot runner injection mould for drippers (up to 96 cavities). Production of this new line has enabled the company to achieve very high output and quality standards. Another line was developed at the same time for irrigation pipes with round drippers having the following technical specifications: pipe diameter 16 and 20 mm, insertion capability of up to 400 drippers per minute, production speed 80-100 m/min.

[www.profiledies.com](http://www.profiledies.com)

### Socketing & packaging

Precisely on the occasion of Plast 2012, **IPM (13 - C37/D34)** celebrates its 25<sup>th</sup> year of activity, previewing the innovative BA 200 PP belling machine for polypropylene pipes, operating in connection with a fully automated packaging system for pipes up to 500-mm long. Considering the high production capacity of these belling

materials at high speeds, both in the forming and in the cutting stations, with an installed force of 60 tons. Great attention has been given to flexibility and user-friendliness, as seen in the quick mould change system in all the stations, direct connections to the utilities on the mould-holding platens of the forming station, and the electric hoist.

A machine from this range has recently been installed on a complete line for extrusion-thermoforming of PP sheet for high speed production of pots (depth 200 mm) for the flower-nursery market. On this occasion an additional hole-punching station was included to make holes in the bottom of the flowerpots, while the finished items are automatically stacked by a 3-axis handling robot.

Also on display is a BA 130 twin-screw extruder for the production of WPC profiles. The Easy Wood system developed for this application is provided as complete lines (from 300 to over 1,000 kg/h) for direct extrusion, without pre-mixing of materials and additives, with up to 80% vegetable fibres in a polyolefin base (HDPE-PP) and around 50% for PVC. The extrusion line is equipped with a single-screw extruder and a counter-rotating twin screw extruder. The latter is considered the ideal machine for processing highly viscous compounds, such as WPC, with high percentages of

materials for medical and automotive applications. Depending on screw geometry and barrel configuration, hourly outputs up to 750 kg can be achieved. The pipes produced on these lines must comply with very strict dimensional and ovalization parameters. For this reason, the lines are equipped with very accurate measuring and control systems for diameter and thickness, which ensure constant, oscillation-free production.

[www.amut.it](http://www.amut.it)

### Irrigation pipes

Specialized in the construction of extrusion lines for the production of drip irrigation pipes, **Profile Dies (13 - C05)** has recently developed a new fast extrusion line for pipes with flat drippers having the following technical specifications: minimum pipe thickness 0.15 mm, mechanical line speed 150 m/min, production speed up to 130 m/min, insertion of 800 drippers per minute.

The line is composed of the following components: automatic inserting unit for drippers, gravimetric dosing units, extruder with 65- or 80-mm screw, coextruder with 20-mm screw, special head-die, calibration and cooling tanks, haul-offs, mechanical drilling unit, automatic winder, control panel with



PROFILE DIES



[www.baruffaldi.eu](http://www.baruffaldi.eu)

visit us at Plast 2012  
Milan, 8-12 May  
Pav.13 Stand B43

**PRIMAC**

[www.primac.it](http://www.primac.it)





machines (up to 924 sockets per hour for 50-mm diameter x 1.8 mm), end-of-line management (collection, automatic packaging and conveyance to storage of a huge amount of pipes) is increasingly necessary. Moreover, an automated quality control (checking the correct position of the automatically inserted gasket) and socket tightness check system is also displayed, demonstrating that only the pipes that pass inspection are conveyed to the automatic packaging unit.

The company offers its European customers customized automated solutions for pipe packaging involving the use of robots for pipe handling and packaging into suitable supports, with automatic forming of pallets pre-arranged to be picked up by forklifts and stocked, or for packing shorter pipes into cardboard boxes provided for the purpose. There are many requests from other regions for automatic packaging systems for pipe bundles by means of multiple straps and optional packing into sacks (or wrapping up by film) as well as subsequent palletization of the produced bundles in special cases.

These are fully automatic systems operating in-line with extrusion (sometimes consisting of more than one of the above-mentioned technologies combined together) which are able to pack up to 1,500 pipes per hour with length of 150 to 3,000 mm. Furthermore, it is also possible to handle, sort and pack separately (with socketed ends having opposite position) pipes having different lengths but manufactured in sequence by the same extrusion line.

Another piece of equipment on display during the fair is the new version of the BA 200 RS (Rieber System) socketing machine, which can attain very high output rates thanks to the use of ovens equipped with short-wave lamps. In addition to their very high efficiency and excellent energy performance, these ovens ensure better penetration as well as direct and dynamic temperature control of the material undergoing processing. The direct effect is a reduction of heating times and therefore of power consumption, particularly when

the machine is not working at maximum potential. Moreover, these ovens do not need to be brought to temperature before the extrusion line is started, because they are instantly operative. Lastly, on May 5, the eve of Plast 2012, IPM is organizing an open house at its headquarters to celebrate its 25 years in the business as well as to introduce the new (patented) INJ range for belling of double-wall PP and PE corrugated pipes. The model being demonstrated (BA 1200 INJ) is the largest of the range and cannot be displayed at the fair due to its size. Together with the cutting unit, this machine completes an extrusion line made by Unicor and having its final destination in the Arabian countries. It is able to socket pipes in-line having outer diameter from 315 to 1,200 mm, ensuring the dimensional stability of the socket, even if exposed to highly variable environmental temperatures

[www.ipm-italy.it](http://www.ipm-italy.it)

#### Optical quality

With more than 45 years of experience, development, and in-house production and over 95% of its products exported,

**Omipa (13 - C30)** is a leader in the construction of complete extrusion lines for various thermoplastic materials. The company is already an established presence in the market for extrusion lines for high optical quality sheets and foils in PMMA-PC-PS-MS with thickness from 0.3 to 10 mm. These products are destined for the continually growing market of LCD, LED and 3D screens, and also for touch-screen technology and advertising applications. For the automotive industry, sanitary applications, food packaging, and appliances the company offers high performance lines for the production of sheets in PE-PP-ABS-PET with coextrusion in up to 7 layers.

In recent years, Omipa has been working with its clients to design and develop hollow polycarbonate profiles with increasingly innovative architectural geometries for application in public and private construction, major projects such as stadium roofing for Olympic and other sports events, stations, shopping malls, and greenhouses.

High line speed is the main feature of extrusion lines for hollow PP profiles in thickness varying from 1.8 to 20 mm for use in industrial and agricultural packaging applications (e.g., fruit boxes, containers, folders etc.) with developments also in the fields of heavy-duty packaging and advertising. In hollow polypropylene profile segment, the company is developing the new Foam System, which makes it possible to reduce final product weight without altering mechanical resistance properties. Fluctuating raw materials prices and the need to improve existing applications have led the company to develop a production system for hollow PP-foam profiles, especially designed for medium-high weights, which makes it possible to reduce raw material

