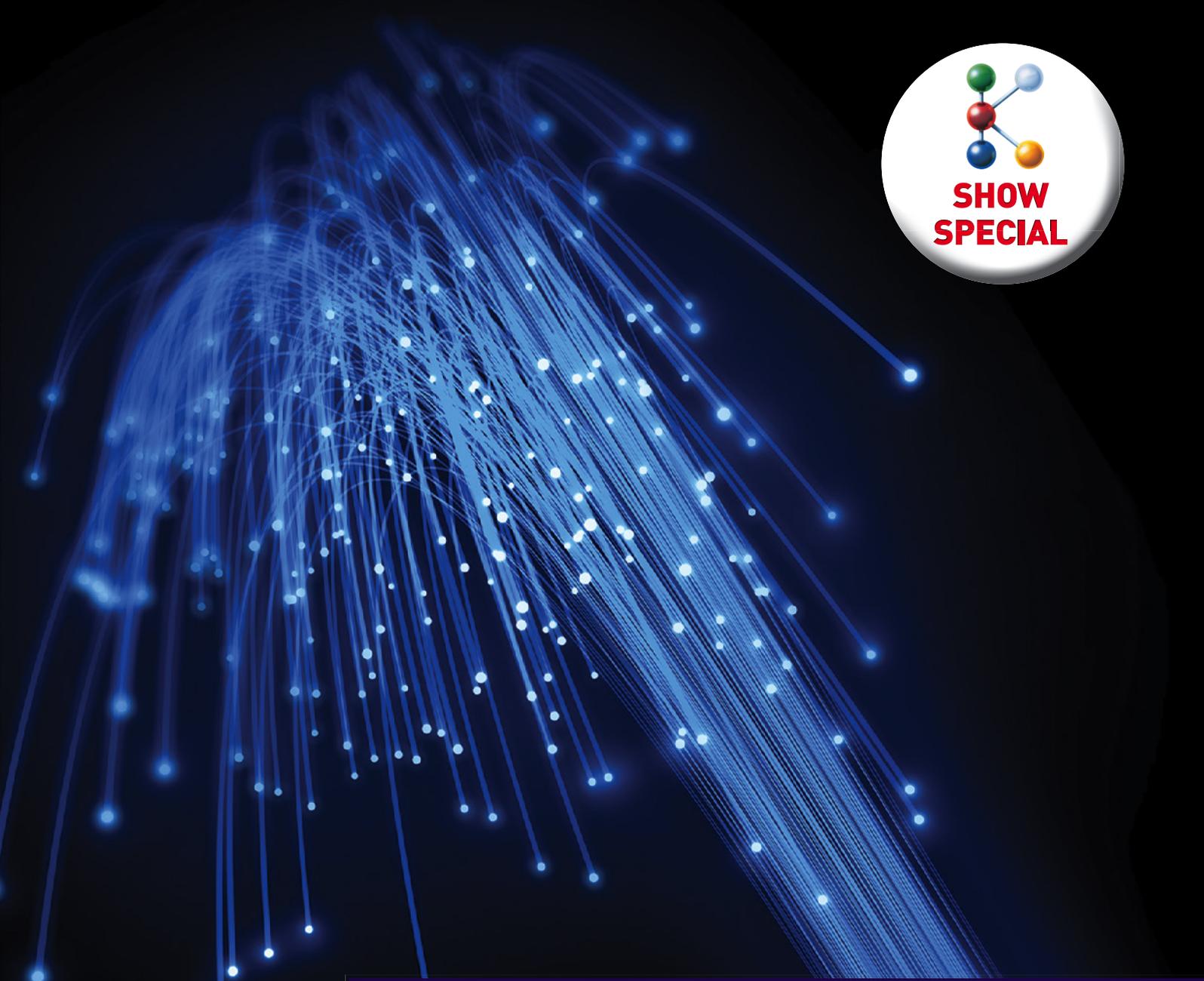


# pipe and profile

October 2013

## EXTRUSION



**LOW FRICTION PE FOR FIBRE OPTIC DUCTING**

**WELCOME BACK: K2013 OPENS ITS DOORS**

**ENERGY EFFICIENCY TOPS THE AGENDA**

**DOWNSTREAM EQUIPMENT: LATEST NEWS**



Whether it's cutting, cooling or haul-off, taking product from the extruder and getting it ready for shipping must be done as quickly and efficiently as possible

# Heading downstream

If upstream equipment like dosers and dryers ensure optimum product quality, downstream equipment ensures that the finished article makes it out of the factory as efficiently as possible. Because, once a pipe or profile has solidified, it must be dragged out of the die, cooled, cut and made ready for shipping.

By making this part of the plant work efficiently, it means that product is ready for delivery as soon as possible.

At K2013, **Sica** will show a range of 'green' downstream equipment, all of which is designed to save energy, materials and cost. This includes two new belling machines.

The first, Multibell 200 M for PVC sewage pipe, reaches 900 sockets/hour with the flagship version. It boasts many new technical features and advantages compared to the previous version, such as more compact dimensions with equal productivity, a revolutionary system for multi-socketing pipes, absence of a hydraulic unit, ease of use and quick format change.

The second model, Unibell 200 E&P for pressure and underground sewage PVC pipes, is distinguished by the electromechanical movement of the forming carriage. By eliminating hydraulic movements, all possible oil leakage into the environment is avoided, and the need for maintenance is reduced. The energy needed for the forming positioning is used only for the duration of the carriage movement. Also, the absence of hydraulic units delivers a significant energy saving,

because hydraulic units have a lower total efficiency than this new device.

## A cut above

As well as belling machines, Sica has also developed a new cutting machine. The TRS 160 W, used for PVC, PP and PE pipes, claims to solve the old problem of chips and dust. Thanks to the patented solution, it can cut and chamfer without removing material. The machine guarantees a clean, perpendicular cut as well as a precise and well-defined chamfer. Sica says that it maintains the same productivity and a satisfactory speed, making it suitable for modern extrusion lines.

Meanwhile, UK-based **Gillard** has developed a new extrusion servo rotary cutter and servo coiler, which will also be unveiled at K2013. Its Servo-Torq Plus

**Gillard's Servo-Torq Plus extrusion cutter combines a servo motor with a digital control system to activate the knife blade**



**KraussMaffei Berstorff's KM-TRK 250 cutter unit is made in China for the local market**



**Above left:**  
Sica's Multibell 200 M, for PVC sewage pipe, can handle 900 sockets per hour

extrusion cutter combines a brushless AC servo motor with a digital control system to activate the knife blade. Very high cut rates are possible, along with precise cut length accuracy. New widescreen touch panels allow easy operator control of the machine.

The cutters are available in three maximum diameter sizes; 30mm, 40mm & 100mm. Matching twin-belt Accra-Feed caterpillar infeeders/pullers are provided to match every machine. Multiple lane configurations are available to handle up to six separate extrusions.

Remote wireless support via the Internet is now standard, and all the machines are fitted with a 3G antenna for use with a local-rate SIM card.

The servo coiler is a compact twin-head machine. The vertical configuration of the reeling drums reduces the footprint of the machine, to save valuable floor space. The servo traverse allows for fine coiling adjustment. There is also a non-contact sonar speed control system for very low tension winding, which Gillard says is vital to avoid product distortion during the coiling process.

### Three-layer pipe

In addition to its pipe and profile extrusion lines, **Theysohn** of Austria will exhibit a selection of down-

stream equipment at K2013.

Its TW 4-10 feedblock and PVC pipehead RKS 3 can be used to make three-layer PVC pipe – with foam or recycle core – for dimensions of 75-250mm. The newest generation of the feedblock allows optimum wall thickness distribution and high reductions on weight. Many different formulations and PVC-K-values can be processed on one system. With the change of the pipe head – and no other changes in the feed block system – smaller and larger pipe dimensions (32-710mm) can be produced. At the same time, the DS 20 diverter block with 508mm axial distance allows the installation of 2 RKS PVC pipe heads for the production of pipes from 32-110mm OD.

This arrangement is used for C-PVC hot water pipes, as well as PVC pressure, sewage and conduit pipes with an output up to 1300kg/h. Output can be doubled compared to a single strand line, and the space requirement can be cut in half. The use of larger extruders cuts energy consumption by about 17% compared with two single extrusion lines, says the company.

US-based **Conair** will use the show to exhibit an ATC dual-spindle coiler, which it says is ideal for winding small, flexible extrusions. Minimal friction or winding tension is generated, which prevents deformities in delicate products. This makes the unit ideal for extrusions such as medical tubing, small tubes, filled cords and small flexible profiles, it says.

Fully automated transfer of winding to a new reel means there is no operator involvement or process disruption, which increases line speed and performance during changeover.

**Click on the links for more information:**

- | [www.sica-italy.it](http://www.sica-italy.it)
- | [www.gillardcutting.com](http://www.gillardcutting.com)
- | [www.theysohn.at](http://www.theysohn.at)
- | [www.conairgroup.com](http://www.conairgroup.com)
- | [www.kraussmaffei.com](http://www.kraussmaffei.com)

## China set

At this year's Chinaplas, **KraussMaffei Berstorff** launched a cutter unit that is made locally in China.

The swarf-free KM-TRK 250, suitable for cutting polyolefin pipes up to 250mm in diameter, rounds out the company's product portfolio for the Chinese market. It already supplies a range of extrusion machinery.

"All downstream units necessary for pipe extrusion systems, including vacuum tanks, spray baths, saws, haul-offs and winders, are locally produced at the Haiyan location," said Harald Schweitzer, member of the managing board of KraussMaffei in China.