

# A sheeter for all seasons

Sheeters have to be able to convert a wide range of materials ranging from paper or paperboard up to strong and rigid materials.



The new Pemco SHM 1450 sheeter is able to cut rigid and impact resistable films

French-based ThyssenKrupp Cadillac Plastic distributes and converts plastic products, working with many leading international plastic producers. Subsidiary ThyssenKrupp Röhm Kunststoffe provides a range of plastic films, substrates and membranes for various applications.

Plastic materials are offered both for customer needs and industrial purposes. For example, PC films and plastic sheets are used in demanding industrial environments. They are very rigid, firm, thermally stable, hard and resistant to weather and UV radiation.

Because of its high rigidity, the material is used for aircraft canopies and racing car windshields. PC films of 750µm are also used for mimic boards on industrial control panels.

## Cutting is the challenge

This robust material has to be cut precisely and efficiently. In the past, ThyssenKrupp Cadillac Plastic used an older cross cutter at low speeds but the results were not satisfying. "With the old sheeter we were sheeting very high value PC films as well as PE films and industrial adhesive films," says managing

director Marc Schlett. But the machine's cut length tolerance and squareness was so imprecise that all production had to be guillotined. The waste rate was up to 10%.

The French site came into contact with Pemco, manufacturers of packaging lines and machines and sheeting systems that is part of Körber PaperLink. To appreciate state-of-the-art sheet precision and squaring results, ThyssenKrupp Cadillac Plastic did numerous test runs at Pemco's headquarters in Sheboygan, Wisconsin, USA.

The companies arranged cutting trials, and product samples were sent to the US. Under the supervision of mechanical assembly technician Glen Telindert, various blade configurations were tested and the results were sent back to France for evaluation.

"Pemco was able to test all material thicknesses from 75-750µ and clearly demonstrate the ability of their sheeter to process our products without any scratching or abrasion problems," evaluates ThyssenKrupp Cadillac Plastic film centre manager Dominique Capentrier the test results.

"We mentioned that one of our major objectives was to improve handling and cutting speeds. With

the new sheeter we found we could double cutting speeds, produce more efficiently and reduce waste considerably."

## Scratches had to be avoided

The new SHM 1450 compact sheeter was individually suited to meet the special requirements of the French factory. The folio-size sheeter can sheet lengths of up to 2050mm. These long format lengths are required in the production of large digital print panels for industrial process control.

Another challenge in the development of the sheeter for ThyssenKrupp Cadillac Plastic was to avoid marks by scratches. While some of the company's high visual impact products are laminated with PE to eliminate scratching, others have to be interleaved on the sheeter with tissue paper run on a second roll stand. Due to the modular design of the SHM 1450, this production process can be realised now, says the company. ■



These films can be used in the construction of industrial process control panels