

EXTRUSION SOLUTIONS



Chooses



*Food Packaging Giant
Uses ENTEK E-MAX™
Extruders for High
Quality Compounding*

Alcan Packaging, a division of the global giant Alcan Group, is the world leader in flexible packaging for food products. The division has sales of \$6 Billion, and operates close to 150 facilities in 30 countries. Sales of food packaging makes up over 60% of the division's revenues.

Alcan Packaging Thermoplate's facility in Russellville, Arkansas uses a Melt-To-Mold® extrusion and thermoforming process to produce trays for frozen food, bakery and retail uses. Seven days a week, the company relies on ENTEK E-MAX™ extruders for high quality compounding of their material blends.

Processing Challenges

The unique process utilized by Alcan involves using the ENTEK extruders to compound their material into sheet. The finished trays are then produced using an in-line thermoforming process. Mike Frazier, Site Manager of Alcan's Russellville facility, says their two 103mm E-MAX™ extruders provide two key attributes.

"We mix additive packages with the resins that go into our packaging trays," he said. "The ENTEK extruders do a great job compounding at high operating temperatures. In addition, they are extremely dependable. We can't tolerate stops and starts due to machinery issues, and of all of our processing lines, the ENTEK machines are the most reliable."

In 2001 Alcan was looking for new machinery, so two Alcan engineers visited ENTEK's headquarters in Lebanon, Oregon to run lab trials. The success achieved running their materials during that visit led to the order for two ENTEK 103mm E-MAX™ extruders, complete with feeders, melt pumps, and dies. After four years of continuous service, "we are very pleased – the ENTEK machines perform extremely well, and are very user friendly," said Frazier.

Controls Expertise

ENTEK has provided more than just extruders to Alcan. Recently, when a control system on a non-ENTEK extruder was malfunctioning, Alcan called ENTEK to service the problem. "We liked the ENTEK controls so much, we wanted to see if we could use them on our other brands of extruders," said Frazier. "ENTEK replaced the old controller with a new control system for this extruder, which isn't even their machinery – and it runs great." Eventually, Alcan plans to retrofit more of their older machines with ENTEK controls.

ENTEK's quality machinery, service and support, and fast deliveries of spare parts all add up to a recipe for success for Alcan. "For our extrusion needs, ENTEK is our first call," said Frazier. "The people at ENTEK are interested in working with us, and they go above and beyond to meet or exceed our expectations."



Extrusion Solutions

"Whether you need an extruder, a complete extrusion line with downstream equipment, or turnkey plant operations support, ENTEK can help."



As ENTEK continues to spread the word about our capabilities to the world, I thought I would say a few words about the theme of our company's new ad campaign (see related article, p. 3).

We call our campaign "Extrusion Solutions", which as you know is also the name of this newsletter. Our new print ad campaign, which is currently running in industry publications, features the end-use applications of some of our customers and how they are benefiting from partnering with ENTEK. We're focusing on some applications that clearly point out what working with ENTEK is all about.

With ENTEK, it's never about just selling you a machine. It's about working together to improve your manufacturing operations. This can mean optimizing an ENTEK extruder for your process, so you achieve the quality and output you desire; but it can also mean much more. It can mean putting ENTEK's expertise in manufacturing to work to help you improve your entire operations. Whether you need an extruder, a complete extrusion line with downstream equipment, or turnkey plant operations support, ENTEK can help.

In This Issue

We're pleased to bring you two more "Extrusion Solutions" articles in this newsletter, one on color compounder Penn Color, Inc., and the other on Alcan Packaging, the world's largest supplier of flexible food packaging products. It is our hope that these real-life success stories will help show you how our customers are benefiting, and how you can benefit, from our extrusion expertise.

In closing, I hope you enjoy this issue of *Extrusion Solutions* and as always, I encourage you to contact me anytime at khanawalt@entek-mfg.com.

Sincerely,



Dr. Kirk Hanawalt, Vice President/Chief Operating Officer, ENTEK Manufacturing, Inc.

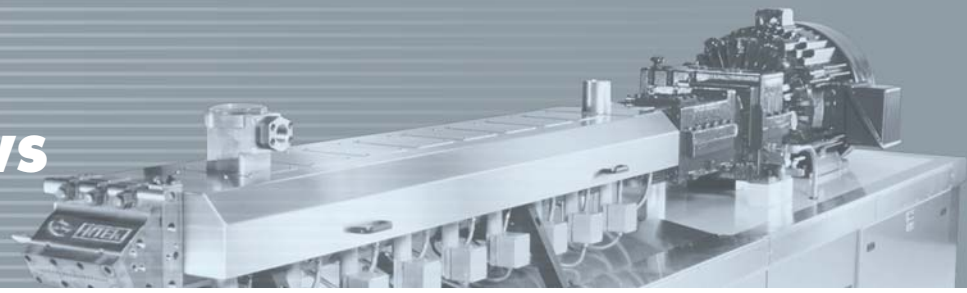
See Us at NPE!



ENTEK – Booth No. 1304, McCormick Place South

At ENTEK we're proud of our Oregon roots, and that will be evident when you see our booth at NPE 2006, being held from June 19-23 at Chicago's McCormick Place. Look for us in McCormick Place South, booth no. 1304 – we'll be exhibiting under a 20 ft. replica of Mt. Hood!

Several exciting new products will be unveiled and announcements made by ENTEK at the show. Watch for our June issue of *Extrusion Solutions*, which will be a special NPE 2006 issue, for all the news.



ENTEK Celebrates Record Safety Achievement

In January, ENTEK announced it had achieved a safety milestone: the company had gone two years without a lost-time event. This means that ENTEK's 85 employees have totaled almost 500,000 hours of work without a single accident. We're happy to report that as this issue of Extrusion Solutions goes to print, the safety record continues.

The Occupational Safety and Health Administration (OSHA) defines a recordable at-work injury as one serious enough to require a doctor's care and to require record-keeping under OSHA standards.

"This achievement has been a total team effort from all our employees, and they should be proud of their commitment to safety," said Rick Price, ENTEK's Director of Manufacturing.

"We have developed a company culture here at ENTEK where all employees watch for unsafe conditions and if they see them, they report them to our safety committee," Price continued. "Everyone is encouraged to speak up if they see a potentially unsafe situation."

To celebrate this accomplishment, ENTEK treated all employees to a steak and lobster luncheon. Price said the company looks forward to achieving its next safety goal, which is 1,000 days without a lost-time accident.



Have You Seen Our Latest Ads?

The new ENTEK "Extrusion Solutions" ad campaign is now running in leading industry publications worldwide.

"We decided to focus on solutions we are providing to our customers," said John Effmann, ENTEK Director of Sales & Marketing. "Our first two ads outline ENTEK's relationship with Plantic Technologies Ltd. of Australia, who uses ENTEK systems for producing bio-resins, and LP, who is using ENTEK for production of their WeatherBest® wood-plastic decking products."

The campaign will continue with ads focusing on solutions ENTEK is providing to other customers in other extrusion markets. Watch for them in your favorite industry magazines!



Made in Oregon



ENTEK's corporate headquarters are in Lebanon, Oregon, where all design, engineering and manufacturing for our products takes place. We welcome all current and prospective customers to visit us to not only take advantage of our in-house lab and extrusion expertise, but also to stay an extra few days to enjoy all the beauty and resources that Oregon offers.

Please contact us anytime to discuss a visit. Our friendly staff will help you coordinate your stay and will also offer tips and advice for some of the great places you can visit in Oregon. Whether you prefer the beach or the mountains, solitude or the bustle of a world-class city, our state has it all.

All our products are proudly "Made in Oregon", which is why you will see the Oregon theme throughout many of our promotional materials. Come visit sometime and see what we at ENTEK, and our state, have to offer!



Chooses



*Color Compounder
Relies on ENTEK for
Quality, Reliability*

When you're in the color business – whether it's paint, printing, fabrics, or plastics – your finished products are judged by how closely they match the original specification. Manufacturing high quality color concentrates and masterbatches requires machinery that performs to exacting standards.

Custom colors and compounds are Penn Color, Inc.'s business, and have been for over 40 years. Based in Hatfield, PA, this privately-held company is a leader in the development of color solutions for masterbatches for the plastics industry, for a wide variety of resins. Penn Color uses ENTEK E-MAX™ twin-screw extruders for its color compounding needs. "ENTEK's service and support is better than anyone else that we've worked with," said Jerry Sonsino, Production Manager at Penn Color. "With ENTEK, you get a lot of machine for your dollar."

Long Term Value

Five years ago, when Penn Color needed to upgrade its machinery, they searched for domestic suppliers of twin-screw extruders. "We felt ENTEK was the best choice," said Bob Kaminski, Plastics Industry Manager – Plastics for Penn Color. "They were not the least expensive machine on the market, but we found that many of the standard features on ENTEK machines were extras or options on others."

After deciding on ENTEK, Sonsino visited the company at its Lebanon, Oregon headquarters to run initial material trials. "They have an excellent in-house, state-of-the-art lab," he said. "I was there for three days of trials, and found that the ENTEK engineers and technicians were most helpful and had a great attitude."

"Now that we've been running ENTEK machines for five years, we're confident we made the right decision," said Kaminski. "We consider ENTEK to be a true partner."

Reduced Downtime for Fast Color Change Capabilities

Penn Color produces a large quantity of small lots, and as many as five or six different colors being produced on one machine in a given day is not unusual. When changing colors, the extruder needs to be thoroughly cleaned as quickly as possible, and can require removal of the screws. "ENTEK provides us with a huge advantage by providing their machines with a swing-out die design," said Sonsino. "Because of this, we can extract the screws through the die without having to dismantle the front of the machine. We can change screws in a half-hour, compared to 2-3 hours with other machines. This reduced downtime translates to considerable productivity gains."

When Penn Color needs spare parts or expedited orders, they count on ENTEK to deliver. "Spare part shipments can be an issue with our other suppliers," said Sonsino. "They are never an issue with ENTEK."



ENTEK Sheet Extrusion Systems

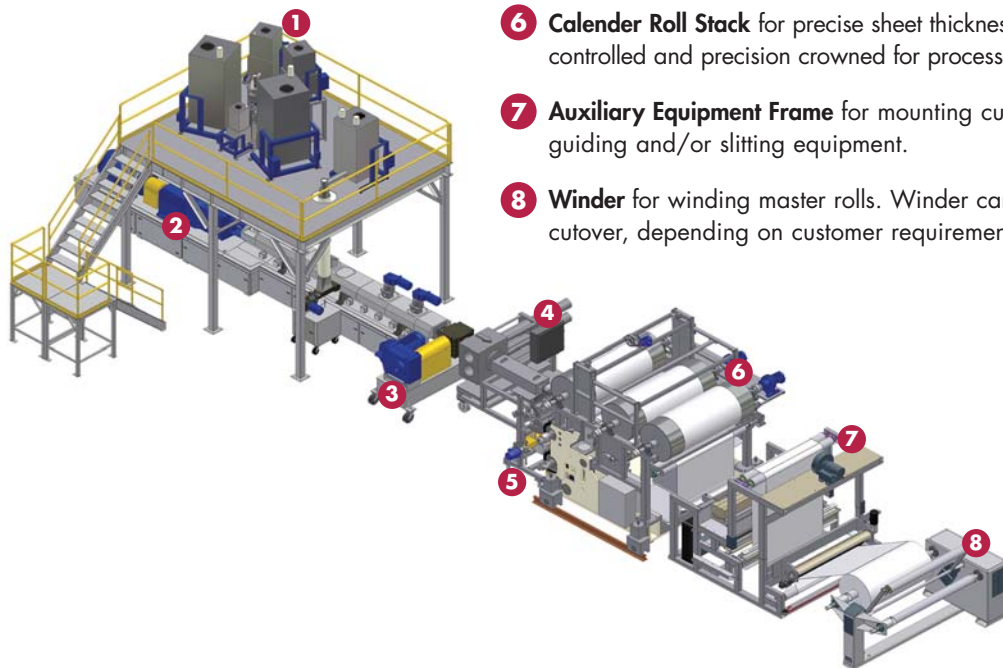
"We have provided complete systems for producing sheet for a variety of applications, ranging from food packaging to synthetic turf."

As part of an ongoing series in *Extrusion Solutions*, we are focusing on complete ENTEK Extrusion Systems for various processes including Fiber-Plastic Composites, Sheet, and Pelletizing. In the October 2005 issue of *Extrusion Solutions*, we featured ENTEK Extrusion Systems for Fiber-Plastic Composites. This issue's focus is on Sheet Extrusion Systems.

ENTEK has provided complete systems for producing sheet for a variety of applications, ranging from food packaging to synthetic turf. If you are extruding sheet, ENTEK can assist you not only as your twin-screw extruder supplier, but with complete system and turnkey plant expertise as well.

The schematic below illustrates a typical layout for an ENTEK sheet extrusion line. Please contact us anytime to discuss your specific sheet application. We're confident we can help you improve your productivity and as a result, improve your bottom line.

- 1 Loss in Weight Feeders** for accurate formulation and steady state operations. Feeder Controls are fully integrated into the extruder controls.
- 2 E-MAX™ Twin-Screw Extruders** features segmented barrels and screws for optimization of any formulation. The co-rotating design yields excellent dispersive and distributive mixing for high throughput and consistent finished product.
- 3 Melt Pump** for pressure generation and control. Allows for combined compounding and direct profile extrusion.
- 4 Screen Changer** for screening extrudate prior to entering the sheet die and calender. ENTEK can supply the screen changer or make adapters to connect to a customer supplied screen changer.
- 5 Sheet Die** can be ENTEK supplied or customer supplied. ENTEK will supply all adapters to incorporate the specified sheet die. Sheet die controls can be fully integrated with other downstream equipment.
- 6 Calender Roll Stack** for precise sheet thickness control. Calender rolls are temperature controlled and precision crowned for process and thickness control.
- 7 Auxiliary Equipment Frame** for mounting customer specified inspection, guiding and/or slitting equipment.
- 8 Winder** for winding master rolls. Winder can be single or duplex, manual automated cutover, depending on customer requirements.



Drawing depicts a typical layout for a 103mm ENTEK system. Systems based on the 53mm, 73mm, and 133mm extruders are also available.

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Recent Personnel Promotions at ENTEK



Dr. Kirk Hanawalt has been named Vice President/Chief Operating Officer of ENTEK. In this role, he will manage the day-to-day operations and will oversee the majority of departments within the company. Prior to this position, Hanawalt served as Vice President – Worldwide Sales for ENTEK. He has been with the company since 1995, when he began as a Process Control Engineer. He has also held the duties of Director of Environmental Compliance and Director of Engineering during his tenure at ENTEK.



John Burke has assumed the role of Operations Manager at ENTEK. He will be responsible for the company's Assembly, Purchasing, and Shipping/Receiving Departments. He has been with ENTEK since 1989, when he joined the company as its Production Coordinator. Since 2002, he has managed the company's Inventory Department, which he will continue to do in his new role as Operations Manager.



John Effmann, hired by ENTEK in 2005 as Corporate Marketing Manager, has been promoted to Director of Sales & Marketing. He will manage all sales and marketing functions at the company, including direction of the company's internal and domestic and international external sales offices. Effmann has over 30 years of sales and marketing experience, including 27 years at Milacron, Inc. where he served in a variety of senior management positions.



Kenn Konetski has been hired as ENTEK's new Midwest Sales Manager, based in Illinois. He joins ENTEK after working as a Regional Sales Manager for Dynisco Extrusion, where he won the company's "Outstanding Sales Award" for two consecutive years. Prior to that, he worked in a variety of sales management positions including 19 years in field service and sales for Barber Colman Company.

