

# EXTRUSION SOLUTIONS



Chooses



*Innovative Color  
Compounder Uses  
ENTEK Extruders for  
Processing Materials  
for "Green"  
Building Products*



One of the fastest growing color concentrate and additives suppliers in North America is Mosaic Color & Additives LLC of Greenville, South Carolina. Mosaic is a non-traditional color compounder with a unique business model that is driving their substantial growth. They are the industry leader in building products and wood-plastic composites (WPC's).

"Pushing the cutting edge of technology and innovation" is how Mosaic describes their business, because in addition to their color capabilities they provide non-traditional solutions, as well as design and consultation services for the development of innovative new products. They are especially known for their realistic faux wood effects. For these challenging applications, Mosaic uses ENTEK twin-screw extruders.

## Seeing "Green" in Building Products

When four industry veterans joined forces and started Mosaic, they saw that a large void existed in the WPC and building products industry for an experienced, WPC-knowledgeable supplier of color concentrates, compounds and specialty additives.

"To fill the market void, we knew we would need a versatile extrusion system to create the unique variety of formulations, polymers, additives, and high loadings that we would need to run, some of which have never been done before and are patentable," said Mike Haubert, Partner and Director of Technology of Mosaic. "When we were looking to expand into twin-screw pelletizing technology, ENTEK was the first company we called. We have been very happy with our ENTEK extruders and are planning on buying even more in the future."

## Challenging Formulations

Mosaic's customers process challenging formulations, from olefins with natural fillers to PVC to ASA alloys to engineering grade thermoplastics. Customized anti-microbials, UV stabilizers, antifungals, flame retardants, and other fillers are also a normal part of Mosaic's packages. "We needed an extruder supplier that was willing to allow our own customization," said Mike Williams, Partner and Director of Sales & Marketing. "It was imperative that we had an extrusion vendor partner that was flexible to outside ideas and willing to think outside the box, made quality components, backed up their equipment with support and service, and had parts readily available domestically. We have found all that with ENTEK."

Not only is Mosaic's future bright, it's green! The company brings even more added value to its customers as it has vast experience in processes that use recycled polymers. By using specific Mosaic products customers can utilize recycled feedstocks instead of virgin materials. Some have even found it improved the quality of their products while it significantly enhanced their bottom line, made a more marketable product and helped the environment.

## Customer First Attitude

In the past year Mosaic has doubled the size of their lab, expanded their building by 50% to 60,000 ft<sup>2</sup>, and purchased another ENTEK extruder well in advance of their business plan. The company attributes its fast growth and success to numerous factors, including their employees' "customer first" attitude.

(continued on page 2)

## Improving Customer Service

*"The Articles in  
This Newsletter Have A  
Common Theme:  
How ENTEK is  
Working to Better  
Serve Its Customers"*



Welcome to our latest issue of *Extrusion Solutions*.

When reviewing the various articles for this latest edition of our customer newsletter I realized that while the articles cover a variety of topics, they share a common theme: they touch on various ways in which ENTEK is working to better serve its customers.

Page 3 features an article on unprecedented savings available to our customers. Dean Elliott's article on page 4 announces the improvements we're making to our in-house development lab. Improvements to our spare parts lead times are outlined in the product feature on page 5 (more on this below), and the story on p. 6 provides information on ENTEK's \$100,000 donation to Linn-Benton Community College to support their machine shop and technical training programs.

The real news coming out of ENTEK is that we work hard every day to improve our operations for the benefit of you, our customers. Every employee here plays an important part in your success. As our company continues to grow, we are more dedicated than ever to keeping our focus on meeting and exceeding our customers' needs.

### Spare Parts, Machining and Lean Initiatives

We take pride in manufacturing the highest quality replacement wear parts for both ENTEK and non-ENTEK brands of twin-screw extruders. To keep up with demand, our replacement wear parts program has expanded greatly over the past year. We have invested heavily in improving ENTEK's internal operations.

As I've mentioned in previous columns, we are proud of the success of our lean manufacturing program in that it continues to pay dividends to our customers. When looking at ENTEK's spare parts program, the implementation of lean initiatives has led to measurable improvements in our quality and our lead times. This in turn has led to the expansion of our machine shop to a 24/7 operation, and to better overall manufacturing efficiency and productivity.

In the 1980's, the founders of ENTEK realized their productivity and profitability depended on the ability to keep their machines running. Downtime was not an option. We know the same applies to every one of our customers, and we never lose sight of that fact.

I hope you enjoy reading our latest newsletter and as always, I encourage you to contact me anytime at [khanawalt@entek-mfg.com](mailto:khanawalt@entek-mfg.com).

Sincerely,



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



## Mosaic Chooses ENTEK

(continued from page 1)

"One of our core principles is always providing a rapid response to our customers' ever changing needs," said Haubert. "And we define 'rapid' in terms of hours, not weeks or even days. A big part of our ability to respond to our customers is having a reliable extrusion system that allows us to react quickly and flexibly, in addition to giving us the confidence of providing lot-to-lot consistency."

Williams added, "We have found the people at ENTEK to be quality individuals who truly care about our business as much as we care about our customer's business. We are not just a number after the sale at ENTEK, and we look forward to a long-term partnership with them."

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Visit us at [www.entekextruders.com](http://www.entekextruders.com)



# ENTEK EXTRUDERS



WE WANT  
YOU  
To Buy  
An ENTEK  
Extruder



**For Both U.S. and International Customers – Unprecedented Savings Opportunities Mean There Has Never Been a Better Time to Buy!**

## Economic Stimulus Act Means Savings for U.S. Processors

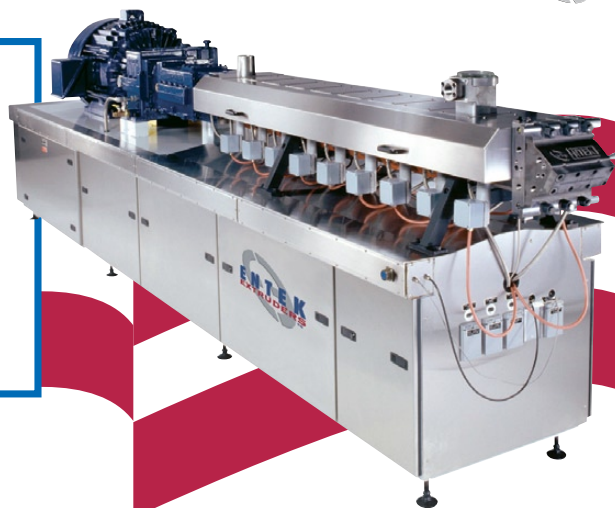
For U.S.-based customers, there are substantial savings available to you if you purchase and install a new extruder by the end of 2008. You can get the details from your accountant but in brief the new tax incentive plan, signed into law in February, provides you with a great opportunity to purchase new machinery and get 50% bonus depreciation on your purchase. ENTEK is ready to design, build and deliver new extruders and systems to meet your needs by the end of the year, if not sooner.

For our non-U.S. customers, keep in mind that ENTEK machinery is designed and built in the U.S.A. – meaning **significant** savings are available to you because of the U.S. dollar's decline against the Euro and other major currencies.

## Unprecedented Savings for International Processors – Here's An Example

Right now, as we go to print with this edition of Extrusion Solutions, our 40:1, 600 rpm, 53mm twin-screw extruder with PC-based smart control has a base price of \$255,000. Comparably equipped machines from Europe are typically 1.5x more expensive. You could save over \$125,000 and get the quality, service and support that ENTEK is famous for.

The opportunities to save are great. If you are considering purchasing a new twin-screw extruder, there has never been a better time to buy. Call ENTEK and let's work together to meet and exceed our growth plans!



## New Developments In ENTEK's Customer Lab



(Editor's Note: Dean Elliott, ENTEK's Extrusion Lab Manager, joined ENTEK in November 2007. Starting with this issue of *Extrusion Solutions*, Dean will author an occasional column that will touch on recent developments in the ENTEK lab.)

### New Personnel, New Machinery, New Product Development – Contact ENTEK to Schedule Your Trial Today!

By Dean Elliott, Extrusion Lab Manager

The ENTEK Customer Development Lab is available to all existing ENTEK customers and potential/future customers. Whether you are looking to purchase an extruder, develop formulae, or improve a process, we have the machinery and technical support expertise to help you achieve your goals.

Almost all of the ENTEK twin-screw extruders in operation in the field are running applications that got their start right here in our in-house lab. Lab trials are an important first step in proving-out material formulations before purchasing production equipment.

If you would like to discuss scheduling a Lab Trial at ENTEK, please contact Tammy Heider to discuss your applications. Tammy can be reached via e-mail at [theider@entek-mfg.com](mailto:theider@entek-mfg.com).

### Machinery and Equipment in ENTEK's Lab

Currently the ENTEK Customer Development Lab is equipped with the following:

- An ENTEK 53mm 52:1 L/D Co-rotating Twin-Screw Extruder;
- Nine Loss-in-Weight Brabender Feeders with the flexibility of feeding a large variety of raw materials. Included is a Liquid Injection Feeder.
- A 90mm Maag Melt Pump, along with an ENTEK Water Bath and Puller for profile extrusion.
- A Gala MAP 6 Underwater Pelletizer, Transfer System (80gpm) and Dryer.
- A Gala Dry Face Pelletizer (SLC-6) coupled with an ENTEK Pellet Transfer System.

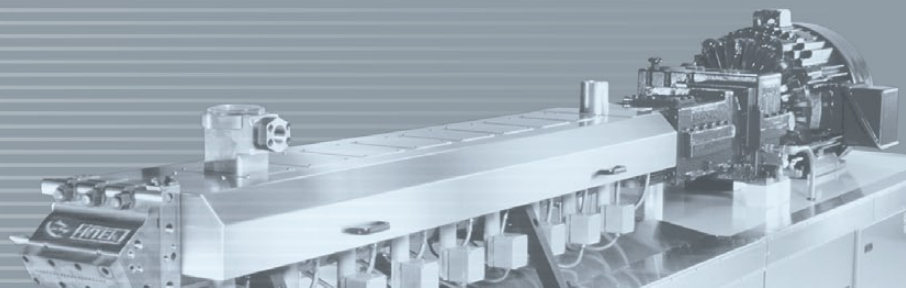
There are several new developments in the ENTEK lab. These include:

- A new 27mm ENTEK Co-rotating Twin-Screw Extruder will be added to the Lab in June. It will include a new Scheer Bay Water bath, Air Knife and SB Series Strand pelletizer.
- We recently acquired a new Conair Traveling Saw for in-line cutting of extruded profiles used with the 53mm ENTEK Lab Extruder.
- We have added a Moisture Analyzer to increase the capabilities of our Analytical Lab.

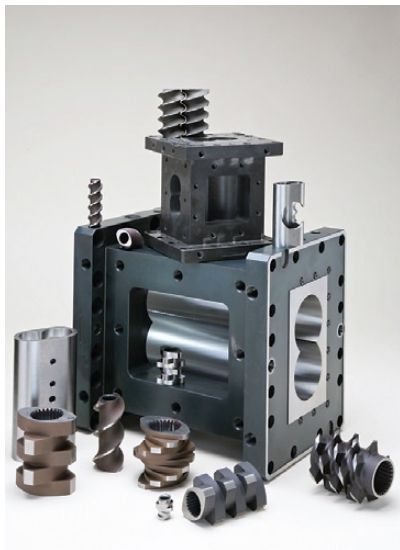
Whether your extrusion application calls for color, mineral or fiber compounding, processing your bioresin formulations, producing wood-plastic composite profiles, or anything in-between, we can help you with your process development.

In future issues of *Extrusion Solutions* I will update you on lab developments including technical information on results achieved and examples of processes run. Thanks for reading and again, feel free to contact Tammy Heider if you'd like to schedule a trial.





## ENTEK Replacement Wear Parts



In previous issues of *Extrusion Solutions* we've told you about ENTEK's replacement wear parts – screws, barrels and components for both ENTEK and non-ENTEK brands of twin-screw extruders. We'd like to provide you with an update on this important segment of ENTEK's business, as we have made considerable strides to further improve our deliveries and service to our customers.

### Improved Deliveries

Lean manufacturing initiatives at ENTEK continue to pay dividends. The latest example of this is our reduced lead times for spare parts.

"We're pleased to be able to say that our deliveries are now at 8 weeks for screws and we're continuing to improve from there," said John Effmann, ENTEK Director of Sales & Marketing. "This represents a significant reduction in our lead times and is a direct result of ENTEK implementing lean principles. Our lead times for barrels have also decreased dramatically."

There has been a significant increase in demand for ENTEK replacement wear parts over the past year. Despite this increase the company has succeeded in reducing lead times, largely because of more efficient manufacturing practices. "We also are now operating our machine shop 24/7 to keep up with the demand," said Effmann.

The importance of having high quality, skilled machinists cannot be underestimated, said Effmann. "That is always a priority at ENTEK," he said. "Our machinists are well-trained professionals who take pride in their craft. Our management team knows that the quality of our products, and our reputation, depends largely on the quality of our machinists."

### A Great Time to Buy!

For international customers, the declining U.S. dollar has made it more attractive than ever to purchase U.S. built machinery and equipment (see related story on p. 3). Now is the time to stock up on ENTEK spare parts and take advantage of the savings for ENTEK and non-ENTEK (ZSK, ZSE, and ZE) brands.

For more information on ordering ENTEK spare parts, contact Tammy Heider at [theider@entek-mfg.com](mailto:theider@entek-mfg.com). She can send you an updated list of parts in stock and provide you with a price quote.



## Upcoming Events



### Plastics Encounter/ANTEC

May 4 – 8, Milwaukee, Wisconsin

### 10th International Conference on Progress in Biofibre Plastic Composites

May 12 – 13, Toronto, Canada

### ASEANPLAS

May 26 – 29, Singapore



### Wood-Plastic and Natural Fiber Composites 2008

October 6 – 7  
Baltimore, Maryland



### Ausplas

October 7 – 10  
Melbourne, Australia

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## ENTEK Makes \$100,000 Donation To Local Community College



*Surrounded by ENTEK employees who are either current or former students, Larry Keith (left), President of ENTEK, and John McArdle, Development Director of Linn-Benton Community College, discuss manufacturing at a recent meeting at ENTEK's headquarters in Lebanon. ENTEK has donated \$100,000 to support LBCC's technical training and machine shop programs.*

ENTEK is pleased to announce that it is making a \$100,000 donation to Linn-Benton Community College (LBCC) to support the college's technical training and machine shop programs.

As a leading supplier of twin-screw extruders and components, this contribution is essential towards ENTEK achieving its aggressive sales goals, said Larry Keith, ENTEK President. "We plan to grow significantly over the next 5 years and we will need well-trained machinists to support this growth," he said. "Our ability to attract and hire technically trained people is essential to realizing our vision."

"LBCC is honored to have the generous support of ENTEK," said Rita Cavin, LBCC President. "Their donation will fund the growth of our technical programs so that LBCC can meet the workforce needs of the mid Willamette Valley. Well trained employees are the lifeblood of manufacturing - they are our competitive edge."

An important part of ENTEK's mission is to support the local community, and the company has had a long standing partnership with LBCC. Many current ENTEK employees studied there before joining the company, and others continue to take training classes at the college.

"We are happy to support the college with much-needed funding and look forward to working more closely with them in the future," said Keith. "This donation will lead to more and better training, and will help us meet our hiring needs in the future. The wages these positions provide will support local families and keep manufacturing strong in our community."



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