



Extrusion Solutions

THE LATEST EXTRUDING NEWS FROM ENTEK



CHOOSES ENTEK



Midwest Supplier Poised for Growth; Will Dramatically Increase Capacity with High-Output ENTEK HR³™ 73mm Twin-Screw Extruder



Based in the tiny Midwestern town of Meredosia, Ill. (population 1,044), BPC Toll Compounding & Blending is a young company with state-of-the-art compounding capabilities. BPC produces a wide range of compounds based on polyolefin and engineering polymers.

Originally founded in Houston in 2007 to conduct testing services for major petrochemical companies, BPC moved to Illinois in 2012 and began offering custom compounding services. Since then, business has steadily increased to the point where the company was running at full capacity, and needed to expand by adding new machinery and equipment.

BPC has run numerous materials trials in ENTEK's In-House Pilot Plant, testing a wide variety of fillers and formulations. When the time came to purchase new machinery they

chose a new ENTEK high-output HR³ 73mm, 48:1 L/D twin-screw extruder, which will be on display at ENTEK's booth at the upcoming NPE2018 show in Orlando.

In a recent interview Mike Krause, Operations Manager at BPC and Greg Larson, BPC's Vice President-Business Development, discussed their company's growth and their decision to work with ENTEK to expand their operations.

A History of Success

Mike Krause joined BPC as Operations Manager after working for several years at wood-plastic composites major Fiber Composites Inc. (FCI), the makers of Fiberon decking and railing products. While at FCI he had several ENTEK twin-screw extrusion production lines in operation, running "high quality materials with very low downtime".

"Besides their machinery, which is extremely high quality, ENTEK's service was always exceptional," he said. "They were much more than a supplier to us; in fact, their service and support was instrumental in our company's growth. ENTEK has an outstanding group of people that is very responsive to customer needs. I saw this firsthand when I was at FCI and I wanted the same thing for BPC now and going forward."

Like many compounders, BPC does extensive materials trials to perfect each compound they produce for their customers. They take advantage of ENTEK's In-House Pilot Plant for these services, working with ENTEK's team, testing and running numerous formulations until they get it right. "We've run numerous trials at ENTEK's lab at their facility in Oregon," said Mike Krause. "Dean Elliott and his team are second to none when it comes to their professionalism and knowledge."

Toll Compounding

Since BPC began their compounding operations in Meredosia in 2013, they have grown steadily with a focus on toll compounding. "Toll compounding helps our customers increase their compounding capacity without having to invest in new machinery and equipment," said Greg Larson. "We can do the materials production for them and provide a full range of other services, very cost-effectively."

(Continued on page 6)





Looking Forward to Seeing You at NPE2018!

Welcome to the latest issue of *Extrusion Solutions*.

We can't bring all 150 of ENTEK Manufacturing's employees to NPE 2018 (being held from May 7-11 at the Orange County Convention Center, Orlando, Florida) – we will be working to fill the many customer orders ENTEK has received in the first 3 months of 2018 – but our contingent at the show will be plenty big (see related story showing who will be working the ENTEK booth on p. 7). ENTEK's booth staff will include mechanical engineers, controls engineers, process specialists, sales staff, divisional managers, and owners. Our staff will be ready to answer technical questions, understand customer's unique challenges, brainstorm solutions to those challenges, and discuss business.

ENTEK will have...

- 2 extruders on the floor, a QC³ 33mm and HR³ 73mm
- Live, twice a day screw change demonstrations on the QC³ 33mm machine, showing how fast and easy it is to change screws in 5 minutes or less
- Wear parts for a variety of extruder sizes
- Auxiliary equipment to facilitate extrusion
- Staff who design and program ENTEK's extruders ready to answer your questions and discuss solutions to your most challenging issues
- Staff ready to discuss and execute turn-key solutions
- Staff with broad experience in extrusion-based processing ready to discuss your processing challenges
- Decision-makers ready to discuss your business needs

Our show staff is excited to meet you in Orlando. Please stop by booth W5189 and see us and we will do our utmost to make it worth your time.

HR³ - A New Name for our Larger Twin-Screw Extruders

While our QC³ line of smaller twin-screw extruders (27mm, 33mm, and 43mm) have received a lot of attention the past few years, we decided to give our larger twin-screw extruders their own name. We've rebranded these machines as the HR³ line, which stands for High Rate, High Reliability, and High Return. This includes our 53mm, 73mm, 103mm, and 133mm twin-screw extruders.

Over 60% of ENTEK Extruders in the field are HR³'s. These machines are workhorses, helping some of the world's biggest materials compounders produce high outputs for a variety of applications including masterbatch, sheet, profiles, and many more. Contact any of our ENTEK sales staff to learn more about how these machines can help your productivity.

Why ENTEK? Ask Our Customers!

On the wall behind our refreshment area at our NPE booth there will be a large display with this same headline, showing condensed versions of our current ad campaign (see related story on p. 8). We take great pride in working collaboratively with our customers, learning as much as we can about their goals, and then servicing them to the best of our ability to help them meet or exceed those goals. This not only applies to their use of our machinery, but to every aspect of their plant operations.

Thank you to all of our customers for their continued support.

As always, I encourage you to contact me anytime at khanawalt@entek.com.

Sincerely,

Dr. Kirk Hanawalt
President, ENTEK Extruders



ENTEK to Feature New Twin-Screw Extruder and Technologies at NPE2018

Company Will Display its New QC³® 33mm Twin-Screw Extruder and Also High-Output HR³™ 73mm Twin-Screw Extruder; Interactive Display Featuring Screw Layout Program Will Also Be Featured

Booth W5189, Orange County Convention Center, Orlando, FL – May 7-11, 2018

ENTEK will feature its newest twin-screw extruders and technologies at NPE2018.

The company will be displaying two machines in its booth: its new QC³ 33mm twin-screw extruder, which was introduced in 2017 and is being shown publicly for the first time; and its high-output HR³ 73mm twin-screw extruder. In addition, ENTEK will feature two interactive work stations at its booth showing the company's unique screw-layout software program. Visitors to the booth will be encouraged to use the program to see how easy and fast it is to input their information and design a screw layout that will work for their compounding needs.



New QC³ 33mm Twin-Screw Extruder Designed for Production of Small Lots of Compounds

The ENTEK QC³ 33mm co-rotating twin-screw extruder is a size not previously offered by the company. It is designed for small-size lots of compounds and includes all of the company's latest QC³® (Quick-Change, Quick-Clean, and Quality Control) features.

The new QC³ 33mm joins ENTEK's other QC3 models which include its 27mm and 43mm co-rotating twin-screw extruders. ENTEK also manufactures its larger line of HR³ twin-screw extruders including 53mm, 73mm, 103mm, and 133mm models (see separate story on the HR³ line).

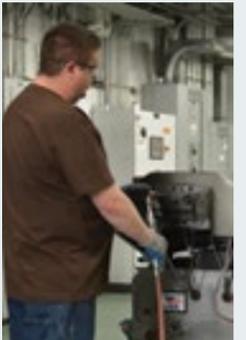
ENTEK launched this new twin-screw extruder due to customer demands for this specific sized machine. "Our 27mm twin-screw extruder is excellent for lab environments, and our 43mm is designed for small to medium-sized lots of compounds," said Linda Campbell, Director of Sales at ENTEK Extruders. "We were getting a lot of requests from customers for something in-between – a machine specifically designed for small lots, but with more output than the lab machine."

Twin-Screw Extruder Screw Change in 5 Minutes? YES!

SEE IT LIVE AT ENTEK'S BOOTH AT NPE!

There are many unique benefits for compounders with the ENTEK QC³® (Quick Change, Quick Clean, and Quality Control) twin-screw extruders – but perhaps the biggest advantage, and it's a game-changer, is the ability to change screws in 5 minutes or less!

For compounders producing small lots of materials, frequent screw changes are a way of life. What takes hours on most twin-screw extruders now takes minutes on ENTEK extruders – 5 minutes or less!



LIVE AT NPE...

We're excited to show you LIVE at NPE our 5-minute screw change procedure. Every day at 11 a.m. and 2:30 p.m. in ENTEK's booth (W5189), our technicians will perform a screw change demonstration. Stop by to see us!

... OR, WATCH THE VIDEO

ENTEK has produced a video showing a complete screw change procedure in less than 5 minutes. For those of you who won't be coming to NPE in Orlando, please go to entek.com/extruders to watch the video!



HR³ 73mm Twin-Screw Extruder for High-Output Compounding

Also, featured at ENTEK's booth at NPE2018 will be the company's HR³ 73mm Twin-Screw Extruder for High-Output Custom Compounding. This machine is one of ENTEK's most popular models, used in the field for numerous compounding applications including production of bioresins, wood-plastic composites, large lots of color compounds and many others. The 73mm machine is available with a 600 hp motor and screw speeds up to 900 rpm.

The HR³ 73mm extruder at ENTEK's booth is the actual machine sold to BPC Toll Compounding & Blending (see article on p. 1).

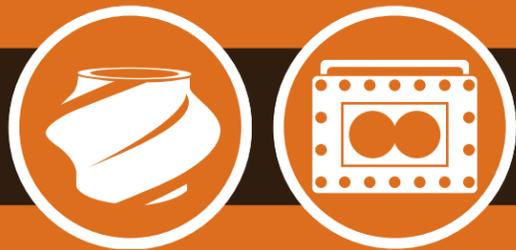
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THE PLASTICS SHOW



- 1. Reception Area
- 2. QC³ 33 Twin-Screw Extruder with Live Screw Set Quick Change Demonstrations
- 3. HR³ 73mm twin-screw extruder (purchased by BPC Toll Compounding & Blending)
- 4. Interactive Screw Layout Program Display
- 5. Conference Room
- 6. Hospitality Area





BPC Chooses ENTEK

(continued from p. 1)

Polypropylene and polyethylene are the main materials processed at BPC, along with a wide range of fillers including talc, mica, calcium carbonate, flame retardants, and cellulose. Natural and white, black, and a full spectrum of colors are produced. Currently TPO and TPE materials are processed on a 70mm 52:1 L/D twin-screw designed to handle rubber-based raw materials and liquid additions.

Under the Radar – But Not Much Longer

The new ENTEK HR³ 73mm twin-screw extruder will be brought online at BPC after the NPE show. Once up and running, the line will allow them to gain more customers and increase their toll compounding capacity dramatically, from 22 million to 60 million lbs./year.

Greg Larson said that BPC has deliberately kept a low profile in the past, but that's about to change.

"We have traditionally stayed under the radar, but our growth has led our owners to invest heavily in our plant," he said. "We've added staff, and are about to launch a new corporate identity. NPE2018 is a big show for us – while we are not exhibitors, we are proud to show off our new machine at ENTEK's booth."

Greg Larson, Mike Krause, and Robin Fourness, BPC's Vice President, Sales & Marketing, all have many years of plastics industry experience, and they've been brought to BPC to promote and grow the business. "We have a great team in place," said Larson. "We all come from the plastics industry compounding arena and are excited to build the BPC business. I believe a real strength is our independence; we aren't owned by a larger company. We are very lean and we are very successful."



ENTEK NPE Features

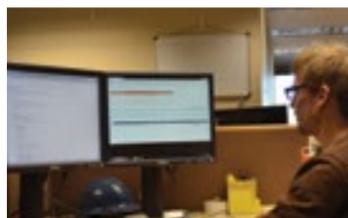
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Interactive Display Will Allow Guests to Design Screw & Barrel Layout Design for Their Specific Compounding Applications

ENTEK's unique screw design program will also be featured at its booth. The company will have two interactive work stations at its booth where visitors will be encouraged to see how easy it is to quickly design screw and barrel layouts for their specific applications.

There are several built-in features for this software, including:

- Drag and drop functionality on all components that customers need to specify: barrel sections, screws, metallurgy, etc.
- Automatic calculation of remaining space on the screw shafts
- Safeguards to prevent putting certain elements where they do not belong
- Easier part ordering as complete part numbers are furnished within the program
- Easy save within the program or export to an Excel file options once design is complete



"This new program is something that provides great value to our customers," said Linda Campbell, ENTEK's Director of Sales. "We want them to see first-hand how it can make their lives easier by giving them the ability to specify, and provide a drawing of, exactly what they need for their applications."



ENTEK HR³™ Twin-Screw Extruders Ideal for High Output Compounding Applications

HR³ (High Rate, High Reliability, High Return) Machines Available in Sizes Ranging from 53mm to 133mm

ENTEK has rebranded its larger, high-output twin-screw extruders. The company's 53mm, 73mm, 103mm, and 133mm machines are now the HR³ series, with 'HR' meaning High Rate, High Reliability, and High Return.

This series of workhorse extruders are used for high-output production of masterbatch, sheet, packaging, food, profiles, and more and make up over 60% of ENTEK extruders in operation today.

"We've put a lot of research and development into our QC³ line of smaller twin-screw extruders the past few years, and that continues," said Linda Campbell, ENTEK's Director of Sales. "But we didn't want to lose sight of the fact that our larger machines are a major source of our business and a great option for high-output compounding."

While the QC³ line of machines (27mm, 33mm, and 43mm) are for customers who run smaller lots of materials and do frequent material changes, the HR³ line is for higher output applications where customers run standard formulations at least 80% of the time.



HR³™ 133mm

Masterbatch compounding
1,000hp, 300rpm or
2,000hp, 600rpm



HR³™ 103mm

Masterbatch compounding
700hp, 300rpm or 1,400hp, 600rpm



HR³™ 73mm

Large lot size custom compounding
400hp, 600rpm or 600hp, 900rpm



HR³:

High Rate
High Reliability
High Return

HR³™ 53mm

Medium lot size custom compounding
150hp, 600rpm or 300hp, 1,200rpm



QC³:

Quick Change
Quick Clean
Quality Control

QC³™ 43mm

Medium lot size custom compounding
100hp, 600rpm or 200hp, 1,200rpm



QC³™ 33mm

Small lot size custom compounding
50hp, 700rpm or 100hp, 1,400rpm



QC³™ 27mm

Ideal lab/low-volume production machine
20hp, 600rpm or 40hp, 1,200rpm



ENTEK Hires Dean Elliott as Technical Processing Manager



ENTEK has hired Dean Elliott to the position of Technical Processing Manager. In his new role, Dean will work with key customer accounts to develop and improve their extrusion processes. He will lead the company's Extrusion R&D Team and oversee Pilot Plant trials.

Dean has over 20 years of plastics industry extrusion experience. He rejoins ENTEK after working for the past three years at Interfacial Consultants/REV Materials of Prescott, Wisconsin, where he led equipment installation projects and managed several strategic customer accounts. Prior to this position, he worked for seven years as ENTEK's Extrusion Lab Manager, where he led all customer extrusion lab trials and worked to help customers solve numerous processing challenges.

"We are excited to have Dean back with us here at ENTEK," said Linda Campbell, Director of Sales at ENTEK Extruders. "He is already well-known to many of our customers, and he fills an important role by helping them improve their compounding processes."

See Dean at NPE2018

At NPE2018, Dean and Colt McDaniel will be at ENTEK's booth meeting with customers and performing live 5-minute screw change demonstrations twice a day, and 11 a.m. and 2:30 p.m. If you're coming to NPE please stop by, say hello and see how ENTEK has simplified the screw change process on its QC³ co-rotating twin-screw extruders!



ENTEK Employees at NPE2018

If you're coming to Orlando for NPE2018, stop by ENTEK's booth (W5189) to see our latest products and services. Our friendly staff will include the following ENTEK employees, who will be at the booth ready to discuss your compounding applications. We hope to see you there!



Larry Keith
CEO



Kirk Hanawalt
President



Linda Campbell
Director of Sales



Austin Lindsey
Regional Sales Manager



Bill Petrozelli
Regional Sales Manager



Al Bailey
East Coast Controls Manager



Dean Elliott
Technical Processing Manager



Matt Ramsdell
Technical Customer Service Manager



Tammy Straw
Marketing and Business Development Manager



Kristina Corona
Sales Project Coordinator



Kelsey Dennis
Inside Sales and Customer Service



Jennie Norris
Inside Sales - Internal Accounts



Colt McDaniel
Pilot Plant Technician



Craig Benjamin
Design Engineer



Melissa Jensen-Morgan
Design Engineer



Ryley Jones
Design Engineer



John Burke
Director of Manufacturing





We Are ENTEK



Why ENTEK? Ask Our Customers!

The theme of ENTEK's current ad campaign is customer support and customer satisfaction – two things that we work hard to provide every day. At NPE2018, we will have a large display on the wall behind our refreshment area (see image below) showing condensed versions of five current ads.

Customer service is the ENTEK difference. If you're coming to Orlando stop by our booth (W5189) to talk with us; we will listen to learn your needs and work with you provide a solution. If you're not coming to NPE, contact us anytime to see how we can help you with your compounding applications!

"ENTEK Helped Americhem Build a State-of-the-Art Compounding Plant, and Much More"



americhem

"ENTEK Extruders and Wear Parts Help Fiberon Produce the Highest Quality Wood-Plastic Composite Decking"



fiberon

"ENTEK's New OC 33mm Twin-Screw Extruder Will Help Us Produce Small Lots of Custom Compounds, Fast"



REX/Mastech

"ENTEK Didn't Just Sell Us a Twin-Screw Extruder – Their Engineers Helped Us Perfect Our Process"



CS Construction Specialist

"ENTEK Twin-Screw Extruders Have Been an Integral Part of Our Growth, and Their Technical Support Sets Them Apart"



AMERICAN



Upcoming Events

See ENTEK at the following upcoming events in 2018:

May 7-11 - NPE2018
Orlando, Booth No. 5189, West Hall



THE PLASTICS SHOW

Sept 18-20 – Extrusion 2018,
Cleveland, Booth 215



Sept 23-25 – SPE CAD RETEC
Charleston



Dec 4-5 - AMI Compounding World Forum
Coral Springs, FL



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RAISING EXPECTATIONS. KEEPING THEM THERE.

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