An E-newsletter from WITTMANN USA

news connection
Spring 2022

Recycling is a 'Win-Win-Win' for Axjo America

Leading Producer of Plastic Spools for Wire & Cable Applications Succeeds Using 100% Recycled Materials, with help from WITTMANN

WITTMANN USA Sustainability Stories

In the world of wire and cable products, there is yet another example of how plastics is succeeding in replacing traditional materials. The traditional spools and reels that are used for winding wire and cable have always been made of wood, with a small amount made of steel; however, plastic has made great inroads into this market as a better alternative.

"Plastic weighs a lot less than wood or steel," said Tony Panozzo, Managing Director of Axjo America, a leading producer of plastic spools based in Conover, North Carolina. "A 48" diameter plastic spool weighs about 40 pounds, while the same size wooden spool weighs 88 pounds. Also, dust, debris and splintering are big issues with wood spools, and you don't have any of those problems with plastic."

In addition to these benefits, Axjo has one more advantage, and it's a big one. They are the only molder who produces its spools out of 100% recycled plastic materials. "What we're doing here is a 'win-win-win' business model," said Barry Carson, Director of Operations at Axjo America. "It's a win for the customer, a win for Axjo, and of course, a win for the environment."

A Growing Market

Axjo America's parent company is Axjo Plastic AB of Gislaved, Sweden. Founded in 1945, the company was a pioneer of using plastics for drums, spools and reels, and quickly became one of the leading producer of these products throughout Europe. Today, Axjo has three manufacturing plants throughout the world (Sweden, China, and the USA).

Europe has been faster to adopt plastics for the wire and cable market than the USA, but the market in the USA is growing, said Panozzo. "Our best guess is that a 50% conversion to plastic is underway in the USA for spools and reels," he said. "It's a huge market; there are over 500 million in use ranging from 3.5" to 48" diameter. We are seeing a big demand for our products; last year our sales doubled the market growth."

The move towards sustainability has driven this growth, said Carson. "Not only are customers seeing the benefits of plastic over wood and steel, but they are also liking the fact that they are working with 100% recycled products," he said.

Barry Carson, Director of Operations at Axjo America (left) and Jim Mitchell, WITTMANN IMM Sales Manager, stand by one of Axjo's 15 WITTMANN molding machine cells at the company's USA headquarters in Conover, North Carolina.

A Global Standardization on WITTMANN Molding Cells

Back in the early 2000's, Axjo in Sweden bought its first BATTENFELD molding machine and began the process of standardizing on one molding platform. "As we standardized on one platform for most of our

(Continued from page 1: Axjo America)

equipment, our technical capabilities have increased and the familiarity between different machines has helped with everything from machine uptime to process adjustments and improvements," said Johan Larsson, Technical Manager for Axjo America.

Axjo America plans on growing steadily over the next five years. To keep up with the company's growth, Axjo commissioned two new WITTMANN machines in 2021, and has more on order.

There are more than 15 WITTMANN BATTENFELD turnkey molding machine cells running at Axjo America, featuring BATTENFELD machines, and WITTMANN robots and auxiliary equipment. "Having all WITTMANN machinery and equipment helps us a lot with our employee training," said Carson. "All machines have the same control screens, and speak the same language, which leads to easier training and familiarity for our machine operators."

Tony Panozzo, Axjo America's Managing Director, stands with some of the company's 100% recycled wire spools.

WITTMANN's automation expertise and service after the sale are also key benefits, said Panozzo."They are familiar with our plant and our processes, and are always there for us in a timely manner when we need them," he said.

A 100% Recycling Business Model

All Axjo spools and reels are manufactured from 100% post industrial and/or post consumer resin. The company is in a constant state of adding suppliers who can help supply the volume (and increases) needed to run the molding machines.

"Single-source recycling of our spools is a big selling point," said Panozzo. "We know there is a large untapped market for our products here in the USA, but the trend towards greater recycling is good news for us. Many of our customers have sustainability goals they are trying to meet and we know we can help."

According to Carson, sourcing materials for recycling is one of Axjo's biggest challenges. In addition to its own spools, the company recycles everything from snack food bags to crates and totes. The primary materials used in Axjo spools are PP, PE, and ABS.

"We need a clean, consistent stream of materials coming in," said Carson. "That's not always an easy thing to do, but we are working with OEM's, materials brokers, and even the State of North Carolina to try to improve the process." North Carolina has a federally-funded waste reduction team that works to connect companies that need plastics, to others who need to dispose of plastics.

"Only 1-2% of PP and PE are currently recycled in the USA, and that is ridiculously low," said Jim Mitchell, WITTMANN's IMM Sales Manager and a member of the Plastics Industry Association's Committee on Sustainability. "The 'part-to-pellet, pellet-to-part' business model is very real, and Axjo is a great example of this. The industry needs to continue to build its recycling infrastructure so more materials are available for recycling, and more companies take advantage of this growing market."

Click to see what Axjo's Barry Carson has to say about Axjo's 'Greenology' philosophy, and their use of WITTMANN molding machines, robots and auxiliaries

An E-newsletter from WITTMANN USA

news connection
Spring 2022

Featured Product

Trying to Save Money on Material Costs? GRAVIMAX G Series Blenders are the Solution!

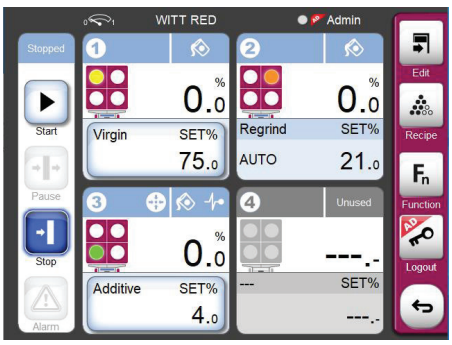
GRAVIMAX G34 blender with hinged lids Throughput: up to 775 lbs. (350 kg) per hour

In addition to easy operation, GRAVIMAX G Series blenders offers extreme accuracy, made possible by RTLS (Real Time Live Scale) dispensing algorithm. With the help of this feature, the gravimetric blenders from WITTMANN reach a metering accuracy of 0.006%, keeping the desired mixing ratio of virgin material and additives on a constant level. Reducing deviations to an absolute minimum helps processors to minimize material usage while still maintaining the utmost quality. The new functions of the GRAVIMAX G Series blenders – available in different sizes for different throughput rates – contribute further to noticeable cost reduction in complex metering processes.

Plastics processors are often worried that inaccurate metering could lead to a batch not having enough colorant or additive. This would result in light parts, and thus, a higher scrap rate. In practice, to ensure the minimum requirement is maintained, processors often set their target percentage to 30% or more over the sufficient dosage. As a result, they are consistently overdosing, which can be quite costly.

For example, production is taking place with a color additive content of 4% instead of the required 3%. For colorant materials with a price of $10/lbs. at an overall throughput 500 lbs./hour (colorant throughput set to 4% [20lbs/hr] instead of 3% [15 lbs./hour]), this excessive consumption adds up to about $100,000 - per year.

The GRAVIMAX G Series touch screen control allows on the fly adjustments, which can quickly change component-dosing percentages. With the G Series Control the type of material used in each component bin can be defined as either virgin, regrind, additive, or colorant.



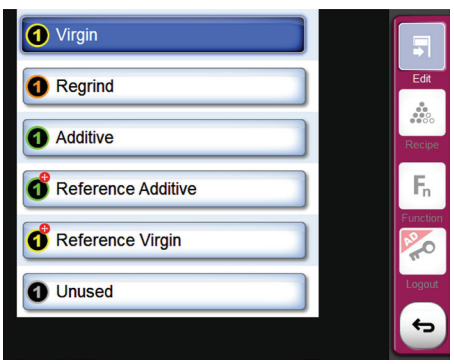
Main Display of the GRAVIMAX G Series Control System Showing Adjustable Fields for Each Component

These material designations affect how the distribution of the materials in the batch is calculated. The control also automatically learns the dispensing characteristics of each component. An operator can quickly and efficiently perform color or mold changes by saving or loading the learned dispensing characteristics to or from a local or networked recipe and material database.

Small deviations can affect the overall batch ratio and lead to excessive material costs. This is especially true when dealing with smaller target quantities for a key component or for a throat-mounted blending application that are exposed to vibrations or sudden shocks from the machine. To minimize fluctuations in the batch ratio, the material type can be set to Reference Additive or Reference Colorant for a key component. When set, the GRAVIMAX G Series blender prioritizes that component and instantaneously scales the quantity of remaining component(s) up or down to maintain the desired ratio. As a result, the overall batch size will be slightly larger or smaller correlating to the actual quantity of the reference component dispensed during that batch. As an example, in the event that the amount of reference colorant dispensed is above the target, the blender compensates by adding more virgin material to maintain the ideal ratio.

Accurate metering can also be difficult to achieve when blending long glass-fiber (LGF) reinforced plastics. The main issue with blending LGF materials is that it has a tendency to bridge in the material bin. This leads to inconsistencies in the flow characteristics and thus, the batch ratio. To counteract this effect, GRAVIMAX blenders are equipped with the option to pulse the metering valves. The pulsing of the valves during dispensing collapses the bridges and helps LGF materials flow in a consistent manner.

To prevent discrepancies from the under- or overdosing of virgin materials like a LGF material – the Reference Virgin material type can be selected. Similar to the other reference components, when selected, the unit will automatically adjusted the targets for the other components based on the exact amount of reference virgin material dispensed.



Material Type Selection Screen from the GRAVIMAX G Series Control showing the various material types available for each component.
Note: Only one component per recipe can be defined the 'Reference' component

An E-newsletter from WITTMANN USA

news connection
Spring 2022

Introducing Regrind Into Your Molding Process

By John DePasquale, Product Manager – Material Handling & Auxiliaries WITTMANN USA

In a recent webinar sponsored by *Plastics Technology* magazine, over 420 registered to watch watched a presentation by WITTMANN USA's John DePasquale on introducing regrind into the molding process.

John discussed why reusing scrap materials is important, including significant cost savings for molders and environmental benefits, and detailed the different types of regrind, which include:

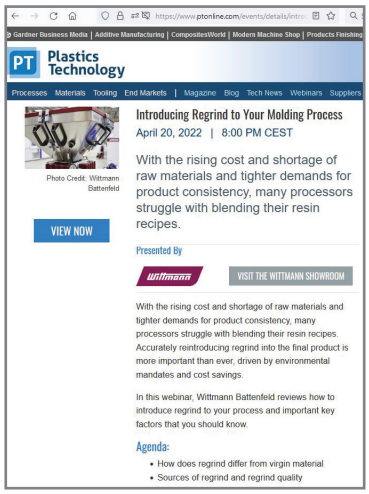
- Post processed
- Post industrial
- Post-consumer
- Re-Pelletized
- Chemically Recycled

WITTMANN's Granulator Test Lab

Another focus of the webinar was on WITTMANN USA's Granulator Test Lab, where the company regularly grinds plastic material samples received from customers. The lab is used to determine the best methods to produce the highest quality regrind.

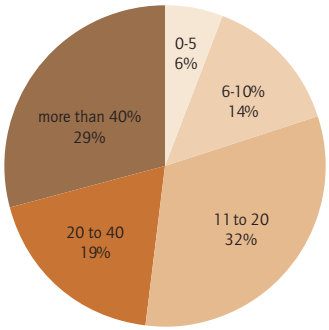
"We encourage customers to contact us if they want to determine the best way to produce and consume their regrind." Said DePasquale. "At our facility we can test various cutting chamber configurations to determine which unit configuration will produce the highest quality regrind for the application."

Click here to watch John's webinar in its entirety!

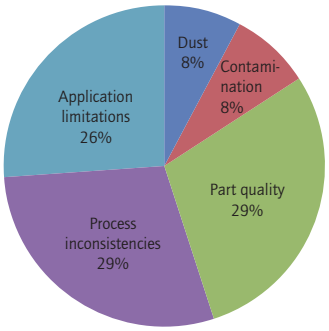


WITTMANN conducted a survey of the 420 webinar attendees asking about their use of regrind

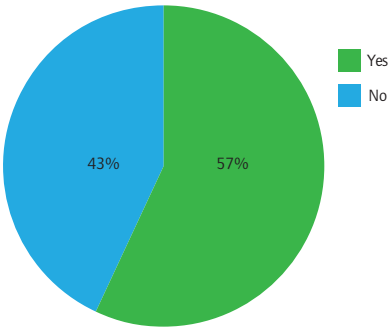
How much Regrind Are you Using



Concerns with Regrind



Using Regrind



An E-newsletter from WITTMANN USA

news connection
Spring 2022

Introducing . . . New WITTMANN USA Operations Video!

We are proud to introduce our new WITTMANN USA Operations Video.

With our Torrington, Connecticut campus headquarters, and our South Elgin, Illinois and Placentia, California Tech Centers, WITTMANN has the USA covered. This video shows the depth of our commitment to the USA plastics industry, and outlines the advantages that our 'one-stop shopping' model brings to injection molders.

WITTMANN is the only industry supplier that manufactures its own injection molding machines, robots, and auxiliary equipment. Molders can rely on WITTMANN to provide the technical knowledge and service to help them succeed in their operations. Check out our new video and contact us today to discuss your molding needs!

Click to see **New WITTMANN USA Operations Video**

Upcoming Events

Our Innovations Roadshow Truck is sanitized and on the road and ready to visit your shop so you can check out our products up close!

Currently making its way around the Eastern Midwest (MI, OH, IN, KY, WV) and then heading to the Northeast!

EXPERIENCE **WITTMANN 4.0**
Learn how it can help you increase your productivity!

LIVE PRODUCT DEMONSTRATIONS:
W822 Robot
B8 Injection Molding Machine Control
Drying, Blending and Water Temperature Control Technologies

Contact Us Today for more information:
Crystal Gagnon, Marketing Communications,
Crystal.Gagnon@wittmann-group.com

Plastics in Motion 2022
May 23 – 25, 2022
Charleston, South Carolina — Click to see Agenda

Don't Miss **Jim Mitchell** presenting
"Novel Lightweighting with Foaming and Gas Assist Technology" at 4 pm on **May 24th**!

Innovations & Emerging Plastics Technologies Conference
June 8 – 9, 2022
Penn State Behrend, Erie, PA — Click to see Agenda

Don't Miss **Thomas Dunn** presenting
"Beside-the-Press VS Central Drying" on June 8th at 11:35 AM!

INJECTION MOLDING & DESIGN EXPO
FROM CONCEPT TO DELIVERY

May 25-26, 2022, Detroit, MI — Click to Register

Don't Miss **Rob Jergens** presenting
"Smart factories: the future of plastics production with Industry 4.0 connectivity and condition monitoring systems (CMS)" on May 26th at 11:40 AM!

COME VISIT US AT BOOTH #424!

Plastics Technology

DON'T MISS OUR UPCOMING ROBOT WEBINAR!
July 20th at 2 PM ET
Keep an eye out on the Plastics Technology Website

An E-newsletter from WITTMANN USA

news connection
Spring 2022

WITTMANN USA Training

Visit Our Website for Schedule and Details, including for Our New R9 Training Classes!

Check out our Training/Tutorial Videos on our YouTube Page

Wittmann Battenfeld Inc. Personnel News

Jack DiFrancesco,
Inside Technical Sales
Injection Molding Machines

Jack originally joined WITTMANN in the summer of 2019 as an intern, and has returned to our USA Headquarters in Torrington, CT as Inside Technical Sales for Injection Molding Machines. He graduated from the University of Connecticut-Storrs campus in May 2021 with a degree in mechanical engineering with a concentration in manufacturing and design, and had previous experience as a Sales Engineer in the HVAC industry.

Logan King,
Inside Technical Sales Coordinator
Robots & Automation Division

Logan has recently joined WITTMANN USA Headquarters as Inside Technical Sales Coordinator for the Robot Division. He has a Bachelors degree in International Business, and brings many years of customer service and marketing experience.

Guarionex Montas,
Technical Service
Material Handling & Auxiliaries Division

Guarionex has recently joined WITTMANN USA as Technical Service Coordinator for the Material Handling Division. He comes to us with over 8 years of customer service experience, both in person and remotely, along with 2 years of technical assembly experience.

Catherine Norton,
Buyer/Planner

Catherine recently joined WITTMANN in our Torrington, CT office as a Buyer/Planner. She has over 5 years' experience in Buying/Planning, and over 20 years of customer service experience.

Amanda Egliskis,
Inside Technical Sales
Robots & Automation Division

Amanda has recently joined WITTMANN in our Torrington, CT office as Inside Technical Sales for the Robot Division. She comes to us with over 2 decades of customer service and office administrative experience.

Thomas Dunn,
Northeast Regional Manager- Material Handling & Auxiliaries

Tom was recently promoted to the position of Northeast Regional Manager for Material Handling & Auxiliaries. He joined WITTMANN in 2014 as a Designer/Drafter. Since then Tom has also served as a Systems Coordinator and most recently as a Systems Sales Engineer, where he managed system sizing, estimating and quoting, and technical sales support.

Natasha Boga,
Administrative Support

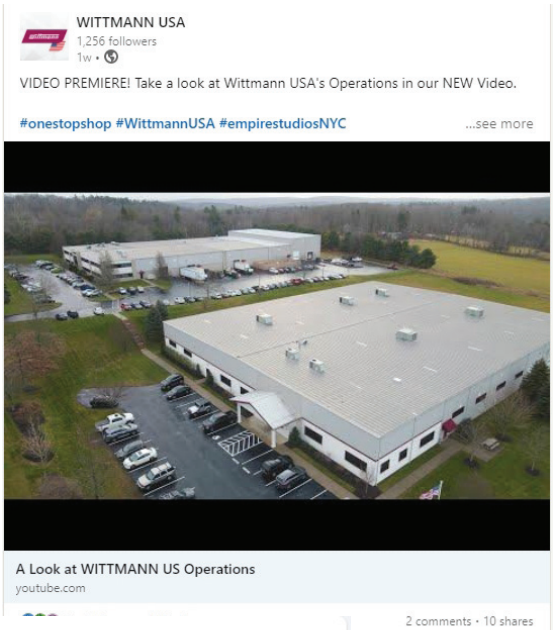
Natasha has recently joined us as Administrative Support in our USA Headquarters in Torrington, CT. She comes to Wittmann with 10 years of accounting experience at Liberal Unified School District #480 in Liberal, KS.

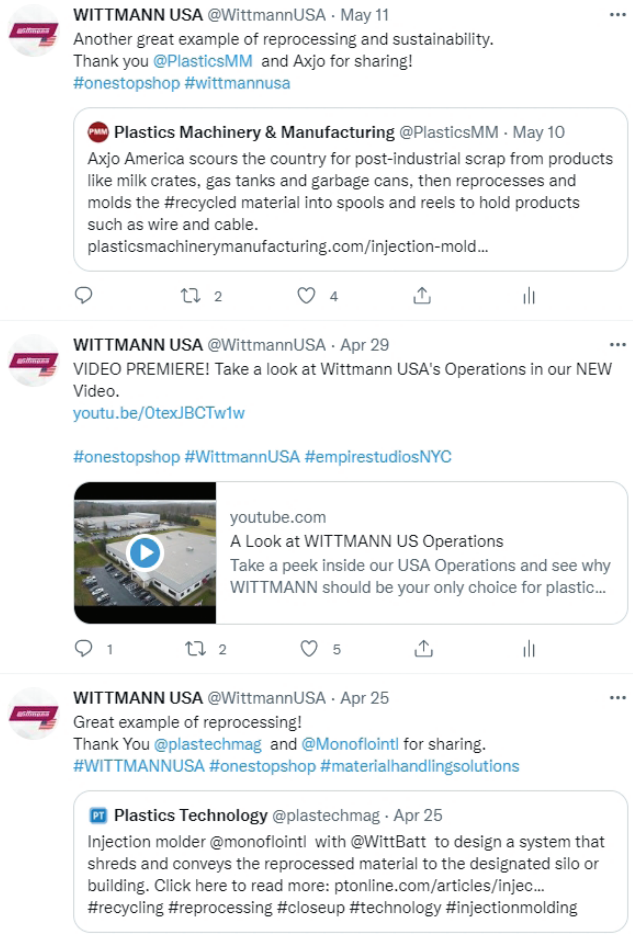
An E-newsletter from WITTMANN USA

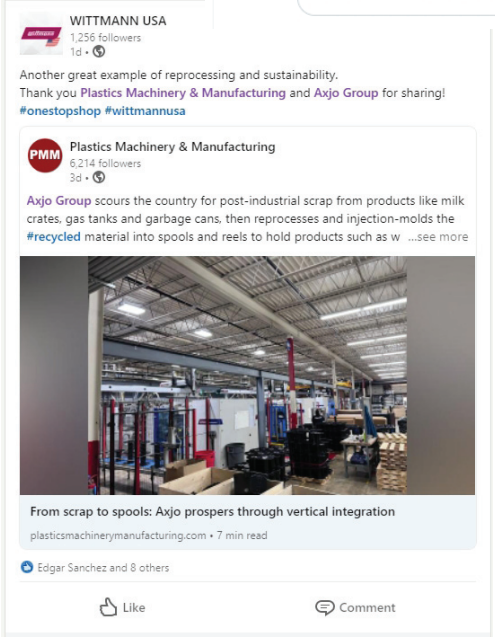
news connection
Spring 2022

Connect With Us on Social Media!

Make sure to connect with WITTMANN USA on our social media channels! Here is some of our recent activity:







facebook.com/WittmannUSA

linkedin.com/company/wittmannusa

Youtube /WittmannUSA

twitter.com/WittmannUSA

world of innovation

WITTMANN USA, Inc
One Technology Park Drive
Torrington, CT 06790
www.wittmann-group.com

Midwest Tech Center
South Elgin, IL
info.us@wittmann-group.com

West Coast Tech Center
Placentia, CA
Tel: (860) 496-9603