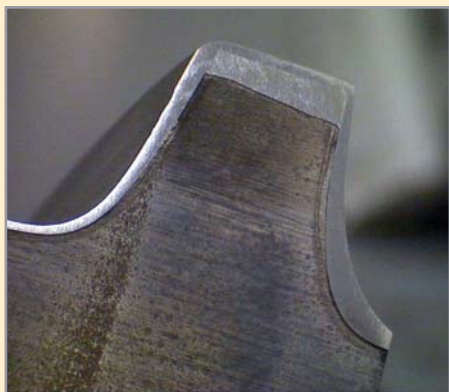


Nanoparticle Coating Makes Screws Highly Wear-Resistant

A technology that uses exceedingly tiny tungsten carbide spheres barely larger than the particles in cigarette smoke enables Nordson to produce a coating for single and twin plasticating screws that resists abrasive and corrosive wear better than standard coatings applied by high-velocity oxygen fuel (HVOF) thermal spray.

The new Xaloy® MPX™ thermal spray coating is made up of particles only 5 microns in diameter. Consisting primarily of tungsten carbide, the particles are six to seven times smaller than those in standard HVOF coatings and more densely packed owing to a uniform spherical shape produced in a controlled plasma process. The combination of ultra-fine particle size, higher coating density, and a 2.5 times greater application velocity results in a

Continued on p. 4



WEAR-RESISTANT MPX™ COATING
is shown on cross section of screw flight

Inside...

- Melt filtration system increases recycling productivity
- Die lip adjuster broadens scope of automation
- Feedback fine-tunes coextrusion on-line
- Downtime reduced for underwater pelletizers

Nordson's Growing Worldwide Network Offers Global Products, Local Support, And a Wealth of Innovations



Three years after Nordson Corporation began an ambitious program to acquire leading producers of melt processing components, the company comes to K 2016 with a broad and integrated portfolio of these products, which it supports with localized sales and service around the world. The K show is in fact a milestone event for Nordson's Polymer Processing Systems (PPS) product range. Since K 2013, Nordson has expanded the PPS portfolio with many innovations; improved lead times by building

a worldwide network for manufacture, sales, and technical support; and invested substantially in capital equipment and IT systems to enhance quality and efficiency.

Nordson is featuring three exhibits at K 2016: The **BKG®** brand, which now includes melt filtration systems, gear pumps, valves, and underwater pelletizers, will be featured in Hall 9, Stand A44/48. **EDI™** flat extrusion and coating dies will be on display in Hall 2, Stand G06. **Xaloy®** screws and barrels for extrusion and injection molding will be shown in Hall 11, Stand A26. Articles in this issue of **NORDSON ADVANCES** present innovations to be introduced at K for all three brands.



Nordson Strategy: Innovate, Modernize, Globalize

Accelerating new product development is part of Nordson's strategy of providing a comprehensive portfolio of melt processing components, says John J. Keane, Nordson Corp. senior vice president: "Our mission is to serve as a single source of components for plastics processors, compounders, recyclers, resin manufacturers, and primary equipment OEMs, and to play this role worldwide. While other suppliers of melt processing components often have limited product lines and geographic reach, we offer a full range of standard global products from regional plants, and support them

Continued on p. 2



INNOVATIONS FOR ALL NORDSON BRANDS AT K 2016, including this BKG® HiCon™ R-Type 250 system. Information on this fundamentally new melt filtration system for recycling highly contaminated plastics is on p. 3.

Nordson Growing *Continued from p. 1*

with service teams based as closely as possible to where customers are located.”

The importance of a global footprint has never been greater, notes Mr. Keane. “The component business is now hypersensitive to lead times,” says Mr. Keane. “For processors, ready access to components and support is essential for maximizing uptime, and OEMs depend on our rapid response to help keep up with production cycles, which in the case of injection molding machines can be very short. OEMs also know that their customers will receive the same support as processors who buy from us directly.”

To meet growing demand, Nordson is expanding capabilities in Europe, Asia and the USA and it is investing in the upgrading and modernizing of operations at all locations to ensure that the quality of PPS products meets the same high standard no matter where in the world they are built. In addition, Nordson has added PPS professional staff at many locations. Supporting them worldwide, moreover, are teams at the parent company’s more than 30 offices worldwide. “Our headcount of people who provide service to customers is vastly greater than that of any competitor,” says John Keane.

European Expansion for BKG®, EDI™, and Xaloy® Brands

Work now underway to add capacity and modernize operations in Europe will increase

Nordson’s capability to supply BKG pelletizers and melt delivery systems and establish the first European production facility for Xaloy screws and barrels. In addition, Nordson has established a new facility for refurbishing or remanufacturing EDI dies.

The melt delivery system business that Nordson acquired from Jan-Udo Kreyenborg in 2013 will be moved from its existing facility in Münster, Germany to a nearby Münster site where BKG underwater pelletizers have long been built. At that location Nordson will expand operations to approximately four times the current size.

Groundbreaking for the Münster expansion will take place shortly, and the project is expected to be completed by the end of 2017, according to Godfrey M. Sandham, vice president for PPS products in Europe, the Middle East, and Africa. “In Münster we will be adding advanced engineering and manufacturing systems, a new warehouse and inventory system, a dedicated aftermarket section, and an expanded technology center,” says Mr. Sandham. “This project will increase our support for customers throughout the world by expanding our capabilities for manufacturing, processing trials, startup assistance, technical service, spare parts, and refurbishment of all Nordson melt processing equipment.”

Nordson has consolidated its polymer melt delivery systems under the BKG brand.

The new brand names are: **BKG® HiCon™ Filtration Systems** for self-cleaning systems; **BKG® NorCon™ Screen Changers** for continuous and discontinuous screen changers; **BKG® BlueFlow™** for gear pumps; and **BKG® HyFlex™** for valves. Screen changers and gear pumps formerly available under the Xaloy brand will now also bear the BKG brand name, and the two product lines are in the process of being harmonized and standardized.

Also in Münster, Nordson has moved into a new facility for remanufacturing EDI dies. “Rework enables an extrusion or web converting company to protect its die investment and achieve new-die levels of productivity and product quality,” says Ken Forden, general manager of Nordson’s die business. “Having regional access to a dedicated remanufacturing operation makes these goals achievable while minimizing production downtime.”

The Xaloy brand will continue to be used for Nordson’s screw and barrel products for extrusion and injection molding. While the European sales and service headquarters for Xaloy products is located at Neckarsulm, Germany, Nordson expects to begin the first European production of Xaloy screws and barrels early next year at Pirmasens, Germany.

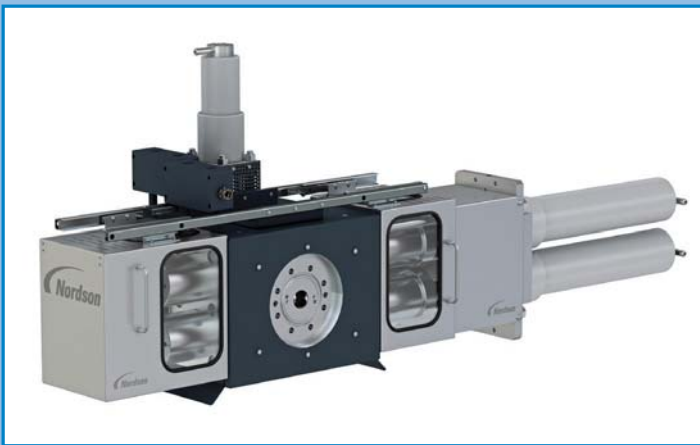
The Pirmasens site was the home of the screw and barrel business of WAFO Schencken & Zylinder GmbH. Since acquiring this company in August of 2015, Nordson has been installing new production equipment and computerized systems. “Once we have deployed the new technologies at Pirmasens, we will produce screws and barrels that meet the same standards of quality and precision that characterize Xaloy products manufactured in the U.S.A and Thailand,” says Mr. Sandham.

Expansion in the USA

For Xaloy® and EDI™ Products

Shortly before K, Nordson announced an initiative in the U.S. that will expand its production, sales, and customer service capabilities for Xaloy screws and barrels. The company will combine its existing operations in Ohio, Pennsylvania, and Virginia into a single expanded facility in Austintown, Ohio that will serve as a regional hub similar to Nordson’s operations in Asia and Europe. The project is expected to be complete by the spring of 2018 and have a staff of about 260 people.

The Austintown project will involve significant investment in manufacturing equipment and IT infrastructure, says Steve Purcell, vice president for the Americas: “We expect this initiative to drive efficiencies



MORE COMPACT AND EFFICIENT SCREEN CHANGER, the BKG® HiCon™ V-Type 3G, is one of two melt filtration innovations that Nordson will display at K 2016, the other being the HiCon™ R-Type 250 (see article on p. 3). Like earlier V-Type systems, the new screen changer uses a hydraulically powered backflush system to automatically remove contaminant while maintaining extrusion throughput and keeping flow and pressure constant. Operationally, it is more streamlined and efficient than the earlier system, with a 30% shorter backflush cycle. Its height has been reduced by 30%, permitting a lower extrusion height; a single displacement piston is used for backflushing instead of having one for each screen cavity; and hydraulic piping has been optimized. All of the filtration area of the combined four screen cavities is available for production while filling of the displacement-piston cylinder takes place. Two outlets for backflushed material are located on the bottom of the unit, with discharge automatically controlled by the movement of the screen-bearing pistons.

in manufacturing processes, decrease lead times, enhance customer service, improve competitiveness, and accelerate growth.”

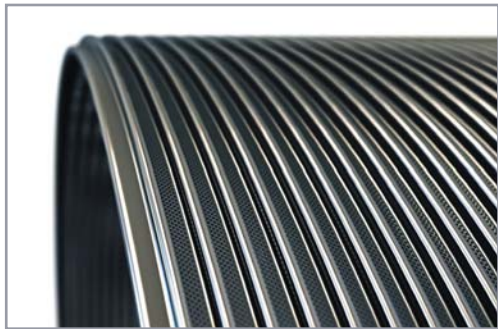
Also in the U.S., Nordson has made major investments at the headquarters facility for EDI dies in Chippewa Falls, Wisconsin. This includes capital expenditures for increased capacity and advanced technology, plus the addition of more than 20 production and engineering staff.

Expansion in Asia for EDI™ and BKG® Products

Nordson is also in the midst of an expansion program in Shanghai. This summer, production of EDI dies was relocated to a new, 35,000 sq.ft. (3,250 sq.m) facility there, increasing capacity for building and remanufacturing dies. Now Nordson is adding assembly capabilities that will make possible the first production of BKG systems in Asia, including pelletizers, screen changers, and gear pumps. In the planning stage is a laboratory for extrusion and pelletizing that will support EDI and BKG brands.

“Asian processors and equipment OEMs are looking for higher-quality components for more sophisticated processes,” says Teong Hiang Kong, vice president for Asia. “Drawing on our technical and market experience, our state of the art machining and casting processes, and our consolidated information architecture, we supply components that can make a positive difference in the overall performance of an extrusion or molding process.”

In China and around the world, Nordson is building a PPS infrastructure that will supply global products while enabling local engineering, technical support, and sales people to solve most customer problems. “Our goal is a seamless worldwide operation that is at the same time highly localized, providing groundbreaking products and rapid service to customers whenever possible in their own time zones and languages,” says Teong Hiang Kong.



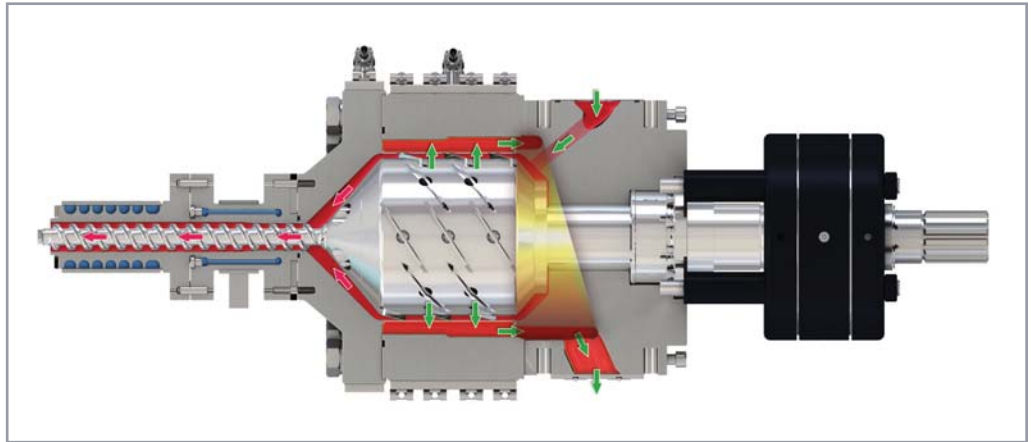
EFFICIENT REMOVAL OF CONTAMINANTS results from design of this strainer tube for the BKG® HiCon™ R-Type 250 system. The holes in the tube are conical in shape, permitting passage of molten polymer while preventing blockage by contaminant.

This System for Recycling Filters Highly Contaminated Melt with Great Efficiency

Making its debut at K 2016 is a fundamentally new melt filtration system for recycling highly contaminated plastics, one that provides greater productivity than comparable machines on the market while maintaining constant melt pressure and product consistency.

Nordson’s BKG® HiCon™ R-Type 250 system transforms “dirty” polyolefin or styrenic plastics into clean, high-quality material and exhibits less melt loss than with traditional backflush systems for highly contaminated plastics, according to Nordson PPS business unit director, Sven Conrad.

The central concept of the HiCon™ R-Type 250 system is unique. It involves the use of a cylindrical “separating head” with knives arranged on its surface in a helical pattern designed to move contaminant particles forward as the head rotates (see schematic). Enclosing the head is a stationary filter element called a “strainer tube.” When contaminated melt from an entry port flows into the cylindrical space between the rotating head and the strainer tube, the knives capture the contaminant while the contaminant-free melt moves through the strainer into flow channels that lead to an exit



GREATER PRODUCTIVITY AND MINIMIZED MELT LOSS are among benefits of new BKG® HiCon™ R-Type 250 melt filtration system. Shown from right to left are the drive mechanism, the cylindrical separating head, and the discharge screw. A stationary filter element called the strainer tube surrounds the separating head. Green arrows indicate the main polymer flow as melt enters the system, moves into the space between the separating head and the strainer tube, and passes through the strainer into flow channels that lead to a port for the exit of decontaminated melt. Red arrows indicate contaminant that is driven forward to the discharge screw by the helically arranged knives on the separating head.

port. At the same time, the rotating head turns a screw which guides the contaminated material through cooling sections and finally to where it is discharged into collection bins.

“Nordson’s newest development cleans much more efficiently than commercially available filtration systems for highly contaminated polymers,” says Mr. Conrad. “The special design makes possible a uniform load on the strainer tube during the cleaning process, providing an extended lifetime for the filter and scrapers and increasing the overall efficiency of the system at far less melt loss.”

A powerful drive actuates the separation head / discharge-screw assembly. The HiCon™ R-Type 250 system operates at a maximum pressure of 350 bar and maximum temperature of 320 °C. Throughput can range from 500 to 1,500 kg/hr. The rate depends on polymer viscosity, filtration fineness, levels of contamination, and other factors. As it exits the system, filtered polymer is maintained at a constant pressure, ensuring uniform processing downstream.

One key to the efficiency with which the HiCon™ R-type 250 system removes contaminants is the design of the steel strainer tubes, which are available with micro-holes ranging from 120 to 750 microns. The holes are conical in shape, permitting passage of molten polymer while preventing blockage by contaminant. This design and the symmetrically positioned knives in the drum contribute to the long working life of the tube before it needs to be replaced. Once cleaned, moreover, the tube can be reused.

Replacing a strainer tube is facilitated by a built-in swiveling arm for removing the strainer tube housing, and by a hand-operated hydraulic device for disassembling it. To ensure uninterrupted production, it is possible to operate two HiCon™ R-type 250 systems in parallel.

HiCon™ R-type melt filtration systems are available from Nordson worldwide.

At K 2-16, see the HiCon R-Type System in Hall 9, Stand A44/48.

MPX™ Coating *Continued from p. 1*

stronger bond with the parent metal of the screw and improved resistance to wear.

Compared with standard HVOF tungsten carbide coatings, the Xaloy MPX technology exhibits 61% less mass loss in ASTM G65 abrasion testing, 18% less mass loss in ASTM G77 sliding wear testing, and 8.5% greater bond strength in ASTM C633 bond testing. As an example of corrosion resistance, the Xaloy MPX coating survived more than 1,000 hours of salt fog testing, in part because of its near-zero porosity.

“Nordson’s Xaloy MPX screw coating provides best-in-class wear protection compared with standard HVOF coatings, and its higher bond strength eliminates potential for chipping,” says Mark Colella, global

product manager for the Xaloy brand. “This new technology extends the working life of screws in extrusion and injection molding, enabling processors to work with some of today’s most challenging materials.”

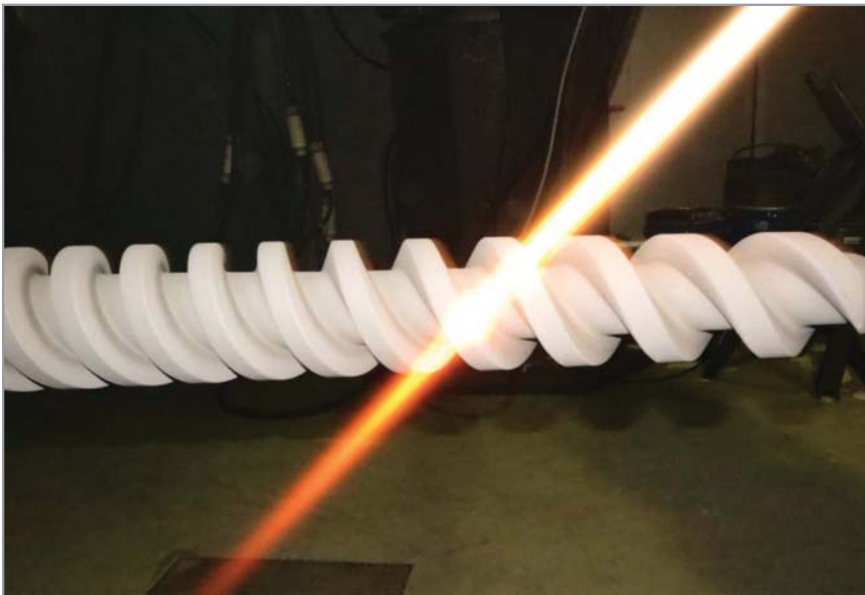
Nordson recommends the Xaloy MPX technology for resisting abrasion from compounds with medium (15 to 35%) filler loadings and for resisting corrosion from halogenated materials, including flame retardants and PVC. For filler content above 35%, Nordson supplies the high-hardness coating Xaloy® X-8000™.

New Xaloy MPX technology can be employed across the full range of screw diameters and may be applied to the entire screw or to specific areas. Standard layer

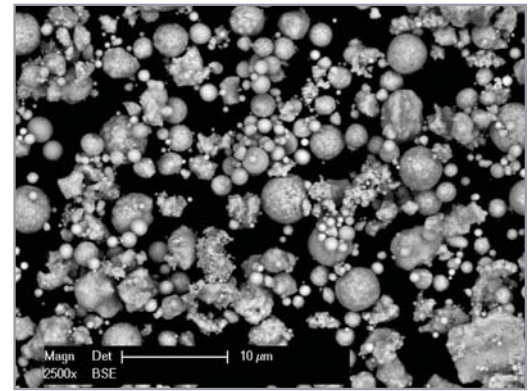
thickness is 300 microns, with variations depending on the area of the screw. The MPX screw coating should be used with a barrel lined with Nordson’s Xaloy® X-800® nickel / tungsten carbide alloy or a comparable inlay.

Xaloy MPX technology expands Nordson’s offering of screw encapsulations for high-wear applications. The Xaloy® X-8000™ coating is a nickel-based alloy with high tungsten carbide content that is first applied in an HVOF process, then fused to the parent metal of the screw to form a metallurgical bond.

At K 2016, learn about Xaloy® MPX™ coating in Hall 11, Stand A26.



THERMAL SPRAY PLASMA PROCESS for Xaloy® MPX™ screw coating yields a surface that resists abrasive and corrosive wear better than standard coatings applied by high-velocity oxygen fuel thermal spray.



GREATER WEAR RESISTANCE of Xaloy® MPX™ screw coating results from spray coating process that applies tungsten carbide particles only 5 microns in diameter, six to seven times smaller than those in standard HVOF coatings and more densely packed owing to a uniform spherical shape produced in a controlled plasma process. The combination of ultra-fine particle size, higher coating density, and a 2.5 times greater application velocity results in a stronger bond with the parent metal of the screw and improved resistance to wear.

Automated Filtration Reduces Downtime for ‘Entry-Level’ Underwater Pelletizers

A new, optional belt filter for the temperature-controlled water system of Nordson’s BKG® Master-Line™ underwater pelletizers reduces downtime and operator intervention by providing continuous, automated filtration of fines.

The new water filtration system also has a finer filter mesh—150 µm versus the 200 µm capability of the standard system available with Master-Line pelletizers. As a modular system that can be interchanged with the standard one, it opens the possibility of upgrading from the standard system on previously installed Master-Line equipment.

The continuously rotating filter screen is constantly cleaned by spray nozzles at one end and a scraper at the other, allowing fines to be collected in a catch basin beneath the belt. In the standard system, fines are collected on a large woven wire-mesh screen that periodically must be removed and cleaned, a process that requires stopping production.

The Master-Line pelletizer, widely used for compounding and

Continued on p. 5



AUTOMATED FILTRATION FOR UNDERWATER PELLETIZER. A new, optional belt filter for the temperature-controlled water system of BKG™ Master-Line™ pelletizers reduces downtime and operator intervention by providing continuous, automated filtration of fines.

New-Generation Lip Adjuster for EDI™ Dies Broadens Scope for Automation

A redesign of Nordson Corporation's widely used EDI™ Autoflex VI flat extrusion die has increased the "stroke" of the lip adjusting system by 43% without adding to response time, enabling it to correct a wider range of process variations, often without need for manual intervention. The design of the new Autoflex VI-E lip adjusting system is also dramatically smaller and more streamlined, simplifying disassembly and substantially reducing the time for maintenance.

While all flat dies with gauge profiling systems have a flexible lip made up of individual adjuster blocks arrayed along the product width, the adjusters in the Autoflex

greater responsiveness of our new system will be particularly valuable in thin-gauge applications such as cast film and extrusion coating."

To reduce downtime, Nordson has redesigned the Autoflex VI gauge adjustment system to make replacement of wear components in the adjuster blocks faster and easier. In the new-generation Autoflex VI-E system, disassembly has been reduced from 19 steps to six, and each lip adjustment component can now be accessed individually. It takes about ten minutes to replace a lip adjustment component, compared to an hour with the standard design. In addition, the

of film, sheet, and coatings," says Mr. Smith. "The enhanced responsiveness of the Autoflex VI-E system enables cast film and extrusion coating processors to increase output while ensuring high levels of product quality and consistency. The easy-maintenance design further boosts productivity by eliminating much of the downtime and labor involved in repairing or replacing lip-adjustment components."

The combination of the Autoflex VI-E system and a computerized gauge monitor typically yields closed-loop control that reduces gauge variation to about half of the minimum achievable with manual systems. In addition to mechanical adjustments with screws, the lip adjustment components in all Autoflex VI-E systems are actuated by cartridge heaters. When a thicker-than-target area is detected in the film or coating, power to the cartridge heaters at the corresponding points in the flexible lip is automatically increased; this causes the adjuster blocks to thermally expand, which tightens the lip gap in the area. Conversely, thinner-than-target areas are addressed by a reduction in power.

At K 2016, see the new-generation Autoflex VI-E system in Hall 2, Stand G06.



BROADER SCOPE FOR AUTOMATION is available with new-generation gauge profiler on EDI™ Autoflex VI-E die, shown here in rear view with lip exit at bottom right. New lip adjustment system extends obliquely from top of photo to the lip area. Recessed fasteners are visible.

VI die include thermally actuated copper alloy translators that are linked to a computer-controlled downstream gauge monitor. The movement, or stroke, of these translators provides gauge control by causing the die gap to increase or decrease. By providing a much larger stroke without an increase in response time, the new Autoflex VI-E system has a greater capacity to correct for changes in throughput, line speed, target thickness, and other process parameters while remaining in automatic mode.

"Nordson redesigned the Autoflex VI system in response to feedback from customers, who told us their greatest needs were for increased automation and reduced downtime," says Scott G. Smith, business unit director for polymer dies. "The

Autoflex VI-E system is smaller and lighter than the standard system. A unit for an 82-in. (2085 mm) die, for example, weighs nearly 20% less.

The new Autoflex VI-E unit is retrofittable on existing dies. It is available with either convective or forced-air cooling. Like the earlier Autoflex VI system, the Autoflex VI-E system is also available in a modular version that can be removed from the die as a complete unit.

Now More Automation and More Uptime

"The EDI Autoflex VI system is used worldwide by thousands of companies for automated thickness uniformity refinement

Filtration *Continued from p. 4*

recycling, is a compact, entry-level system with a throughput capability of up to 2,000 kg/hr. As with other underwater pelletizers, a water tank provides a flow of water through the pellet-cutting chamber. After being cut, the pellets are separated from this transport water in the dryer, and the water is filtered for removal of fines before it returns to the tank.

"The new belt-filter module provides users of Master-Line pelletizers with the finer-filtration and self-cleaning features available with our more elaborately equipped, higher-cost Combi-Line™ and Opti-Line™ pelletizers," said Ralf Simon, managing director for the BKG® pelletizer business. "Until now, the only alternative for achieving 150-micron filtration with the Master-Line system was to install a secondary, stand-alone filter."

At K 2016, learn about the BKG® Master-Line system in Hall 9, Stand A44/48.

Dual-Adjustment Feedbacklock Fine-Tunes Coextrusion On-Line

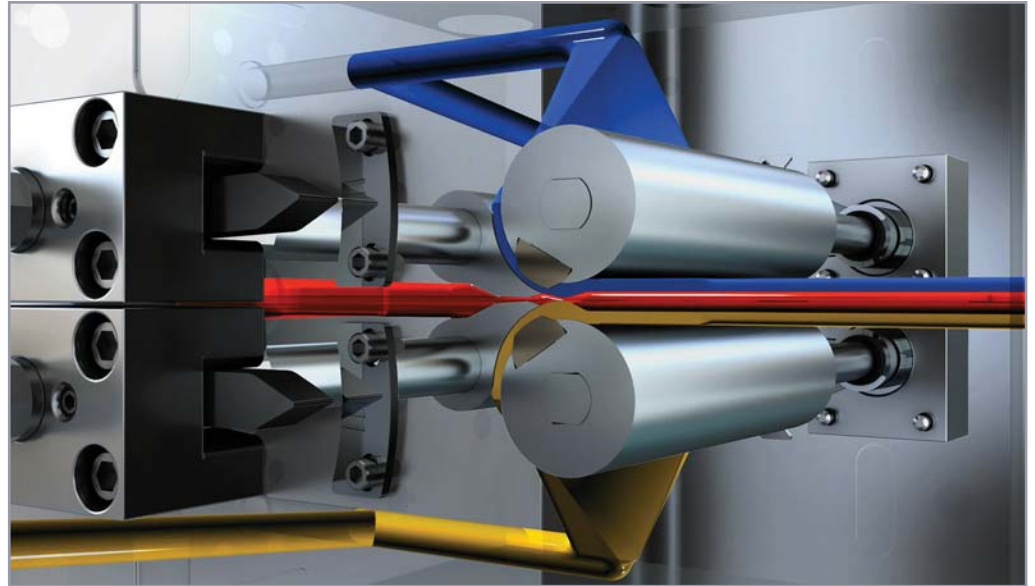
A new-generation EDI™ coextrusion feedbacklock enables processors of film, sheet, and coatings to fine-tune individual layers as well as accommodate changes in layer ratio, and to adjust the tuning system without removing the feedbacklock from the production line. Besides introducing the technology at K 2016, Nordson will highlight the availability of feedbacklocks with wider than standard flow channels that reduce shear stress and enhance end-product quality and consistency.

A feedbacklock combines melt streams from separate extruders into a multi-layer “sandwich” that the extrusion die subsequently distributes to target product width. The new EDI Ultraflow™ V-T feedbacklock has separate devices for fine-tuning layer stability and thickness uniformity, and both are capable of being adjusted without stopping production. As in the widely used Ultraflow™ V feedbacklock, one of these devices is a pair of “combining planes” (located where the outer-layer melt streams join the core layer in the central flow channel) that fine-tune the overall structure by adjusting the gaps at the point of layer combination. What is new is a pair of “profiling actuators” (located opposite the combining planes) within which are mounted interchangeable “profile bars” that fine-tune the thickness uniformity of the individual layers (see schematic). For coextrusion of more than three layers, additional tuning devices are placed farther downstream, where more melt streams join the central structure.

“Because the profiling actuators are large in diameter, they accommodate wider profile bars and enable them to be positioned either close to or farther from the layer combining point,” says Sam G. Iuliano, business development manager for polymer dies. “This provides more area for tuning layer thickness uniformity and thus makes possible more accurate and effective tuning. In addition, changing the position of the profile bars dramatically changes the result, allowing for significant process refinements to be made on-the-fly.”

The positioning of the profile bars with respect to the combining point is adjusted

by rotating the profiling actuators. This is accomplished by turning nuts on the outside of the feedbacklock in accordance with a position indicator and does not entail stopping production.



FINE-TUNING LAYERS AND LAYER RATIOS ON-LINE. Schematic of internal working components of EDI™ Ultraflow™ V-T feedbacklock shows fine-tuning of a three-layer coextrusion. Flow direction is from left to right. First, two tear-drop shaped “combining planes” tune the overall structure by adjusting the gaps at the point of layer combination, where the outer-layer melt streams (blue and gold) join the core layer (red) in the central flow channel. At the same time, two cylinder-shaped “profiling actuators” (located opposite the combining planes) tune the thickness uniformity of the individual layers by means of interchangeable “profile bars” (brown components mounted on the profiling actuators). For coextrusion of more than three layers, additional tuning devices are placed farther downstream, where more melt streams join the central structure.

The profile bars are available with various surface configurations, including a standard bar with a uniform raised surface and others designed to correct such issues as heavy end flow, heavy center flow, or “M” or “W” patterns. The bars are installed in dovetail grooves in the surface of the profiling actuators. A cover plate in the feedbacklock provides access for replacing one set of bars with another.

“Adjusting the profiling actuators in the Ultraflow V-T feedbacklock makes it possible to influence the distribution of a particular layer,” says Mr. Iuliano. “If further adjustment is necessary, one can replace the profile bars by briefly stopping production, without having to

remove the feedbacklock from the extrusion line.”

Nordson will specify a feedbacklock whose flow channel differs in size from the standard 4 in. (100 mm), with widths available from 2 in. (50 mm) up to 7 in. (180 mm) depending

on the width of the product to be extruded. Larger volume feedbacklock channels reduce the shear stress levels at the layer interfaces and a wider feedbacklock channel contributes to a more consistently on-specification product. In the case of a 100-in. (2,540-mm) die, for example, the spreading ratio is 25:1 for a 4-in. feedbacklock channel but only about 14:1 for a 7-in. channel.

The Ultraflow V-T feedbacklock is available with Nordson’s optional selector spool that allows the layer sequence to be pre-arranged upstream of the combining point, without removing the feedbacklock from the production line.

At K 2016, see the Ultraflow V-T feedbacklock in Hall 2, Stand G06.

NORDSON ON THE WEB

For information on all Nordson Polymer Processing Systems brands, readers are invited to visit www.nordsonpolymerprocessing.com. Nordson Corporation (Nasdaq: NDSN) engineers, manufactures and markets differentiated products and systems used for the precision dispensing and processing of adhesives, coatings, polymers and

plastics, sealants, biomaterials and other materials and for fluid management, test and inspection, UV curing and plasma surface treatment, all supported by application expertise and direct global sales and service. Nordson serves a wide variety of consumer non-durable, durable and technology end markets including packaging, nonwovens, electronics, medical,

appliances, energy, transportation, construction, and general product assembly and finishing. Founded in 1954 and headquartered in Westlake, Ohio, the company has operations and support offices in more than 35 countries. Visit Nordson on the web at www.nordson.com, [www.twitter.com/Nordson_Corp](https://twitter.com/Nordson_Corp) or www.facebook.com/nordson.