Ensure unsurpassed product quality and performance when you partner with the industry’s leader in flat die manufacturing and technology.

**Benefits of Nordson Biax Film Technology**

- **Longer production runs of high quality film** are made possible using a variety of high quality materials of construction and surface finishing techniques.
- **Unsurpassed coextrusion uniformity** leading to a consistent thickness across the final film product.
- **Increased structure versatility** with equipment designed to accommodate dissimilar viscosity materials and partial coverage requirements.
- **Reduced downtime during product changeovers** with custom-engineered designs and optional features, based on your specific application needs.
- **Maximize production efficiency** with optimized manifold designs.
- **Increase material savings** by utilizing the “naked edge” or partial coverage feature, allowing for reduced trim.

Nordson Corporation is the leading international supplier of extrusion dies and related system components for the production of biaxially oriented film. With over 40 years of innovation and the largest number of installations throughout the world, Nordson offers processors a reliable and proven solution to their film production needs: an EDI multi-manifold die.

EDI multi-manifold dies are used to produce biaxially oriented films with enhanced properties for food packaging, lamination, tape, photographic films, electronics, labels, and over wrap by stretching the material in two directions referred to as MD (Machine Direction) and TD (Transverse Direction).

EDI multi-manifold die designs are engineered to order, with continuous improvement taken from customer feedback. Whether your specific application requires a custom-designed die for the production of BOPA, BOPET, BOPP, OPS, or a specialty application, Nordson’s highly skilled team will work with you to design an innovative solution to meet your needs.

**Features of EDI® Multi-Manifold Dies**

- Most precise form of coextrusion technology available.
- Automatic gauge control as proven option.
- Coextrusion structures with skin layers of less than 10% total configuration.
- Coextrusion structures with melt temperature differentials up to 28°C (50°F).
- Easily adaptable to interface with new or existing equipment.
- Available options include push/pull feature with automatic lip gap control, special lip exit design, complete metric design, special body materials, various platings, and mounting brackets.
Solutions for Biaxially Oriented Film

EDI Coextrusion Die Systems for the Production of Biax Film

BOPET Dies
- Nordson has extensive working experience in the BOPET film industry, with the most global installations of any die manufacturer
- Capability for producing multiple layer structures
- Coextrusion is possible with multi-manifold die or single manifold die and feedblock approach
- Innovative surface finishing techniques allow for highest quality end products
- A variety of high quality materials of construction
- Optional features include EverSharp™ lip coating technology or laser-hardened lips to increase the length of production runs

BOPP Dies
- Capability for 9 or more layers through a combination of dedicated flow channels and coextrusion technology
- Partial coverage of process dependent film structures is made possible with fixed internal deckling, allowing for coverage widths to be varied by exchanging internal inserts
- Fixed distribution bar inserts positioned at the point of convergence enable flow geometries to be exchanged without additional machining of die surfaces
- A variety of high quality materials of construction and surface finishing techniques available
- Optional features include EverSharp™ lip coating technology or laser-hardened lips to increase the length of production runs

BOPA Dies
- Dual Chamber Vacuum Boxes for stable, high speed operation available as an option
- Coextrusion is possible with multi-manifold die or single manifold die and feedblock approach
- A variety of high quality materials of construction and surface finishing techniques available
- Optional features include EverSharp™ lip coating technology or laser-hardened lips to increase the length of production runs

OPS Dies
- Restrictor bars are used to achieve fundamental distribution, with the flexible lip employed for fine-tuning
- Small-profile sliding deckles can be provided which do not compromise the conventional lip-to-nip air gap
- Coextrusion is possible with multi-manifold die or single manifold die and feedblock approach
- Engineered to order using extensive knowledge of polymer processing
- Optional features include FastGap™ lip adjustment system and Autoflex automatic profile control system
Solutions for Biaxially Oriented Film

Autoflex Technology
- Low mass translators, which provide improved reaction time for both heating and cooling cycles
- Adjustments available on 21.0mm (0.827"), 25.4mm (1.000"), or 28.6mm (1.125") centers
- Stainless steel cover installed over adjustment system, preventing external drafts from influencing the adjustments and vapor residue from building up
- Low profile, close approach to casting roll
- Optional feature allows for system to be removed as a complete modular assembly

Benefits
- Reduce gauge variation and increase product yield when paired with processor based gauging system
- Eliminate heat transfer between die body, lip, and translator block with heating unit isolated above the flexible lip die body
- Reduce operational adjustments with automatic mode allowing for more linear movement
- Fine manual tuning is possible with differential adjustment system

Coextrusion Technology
- EDI multi-manifold dies allow for the most precise coextrusion tolerances in the market
- EDI Distribution/Feedblock provides coextrusion option in existing die systems
- EDI Ultraflow™ BOPET Feedblock provides a special design for unsurpassed coextrusion uniformity of biaxially oriented PET film
- EDI Ultraflow™ I Fixed Geometry Feedblock, the most widely used feedblock supplied by Nordson, offers processors a robust, customizable design

Benefits of EDI Coextrusion Technology
- Improved product quality with precise individual layer distribution through multi-manifold die
- Increase product changeover flexibility with innovative feedblock features
- Reduce downtime for routine cleaning with available split body feedblock designs
3 Layer Distribution Block

Distribution/Coextrusion Blocks and Adaptors
- Designed based on flow streamlining and engineering safety requirements
- Machined from high-quality steel forgings
- Hand-polished to the same quality finish as extrusion dies and feedblocks

Benefits
- Selector plate feature allows for layer combinations to be easily changed
- Entrance locations can be customized to fit new or existing line layouts with minimal modification
- Proprietary software simulation, combined with extensive polymer processing knowledge, leads to total system regulation of pressure and material residence time

Multi-Manifold Die Cleaning Carts
- Adjustable widths for various die sizes
- Stores spare dies
- Brackets to support die segments
- Gear rack and handwheel for splitting die segments
- Optional built-in electro/hydraulic lifting/lowering mechanisms
- Optional preheat station

Benefits
- Enhance workplace safety by moving an entire die from the processing line to a maintenance area
- Reduce downtime for routine maintenance with a system designed to streamline the cleaning process
- Simplify die disassembly and reassembly by easily rotating die halves for access to the flow surfaces

Ultracart™ for Triple Manifold Dies