## Premier<sup>TM</sup> Fixed Lip Multi-layer Slot Dies

Ensure superior performance when you partner with the field's leader in precision slot die equipment and specialists with extensive industry experience.

## **Benefits of Multi-layer Slot Die Technology**

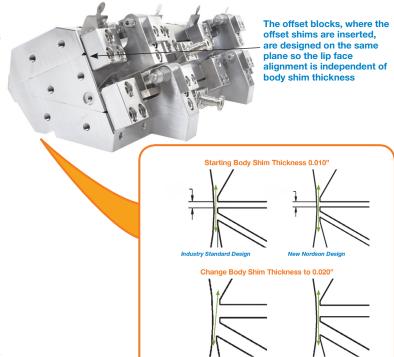
- Lower production costs by coating multiple layers in one pass
- Reduce contamination and emission of volatiles with closed loop system
- Improve end product yields with a manifold designed to uniformly distribute the coating fluid, based on the fluid's rheology
- Increase production rates with pre-metered slot die and positive displacement pump technology, allowing for precise fluid application with higher solids content
- Shorten time required for product changeovers with a slot die designed for a larger process window, allowing for use of a higher variety of fluids at multiple widths and coat weights
- Easy to use design requires minimal operator adjustment
- Prevent costly damage to the die and coating roll with a die designed to allow the offset adjustment to be independent of body shim thickness

Nordson Extrusion Dies Industries' Premier Coating Division offers converters slot die coating systems that deliver a precise, uniform flow to the web at a constant rate.

Premier Fixed Lip Multi-layer Slot Dies are custom designed for a wide range of fluids, including solvent and water-based coating, slurries, paint, hard coating, UV curable, adhesives, and many more.

At our dedicated facility, experienced technicians use state-of-the-art equipment to manufacture multi-layer slot dies to precise tolerances after precision grinding and hand lapping. The result is a die that is not only flat and straight, but also has an exceptionally uniform slot gap.

No matter what your coating needs are – from laboratory devices to production systems for adhesives, magnetic media, paint, solar, glass coating and more – a custom-designed Premier Fixed Lip Multi-layer Slot Die will increase your production efficiency and provide significant cost savings.



#### **Features**

- Manufactured from aircraft quality 15-5 PH stainless steel for highest dimensional stability
- Adjustable gap and coating width with precision stainless steel or plastic shims
- Body lip offset for optional shear at substrate coating interface
- Locking hinges for safe and easy changeovers, reducing potential damage to the die or lip faces
- Quick-clamp sanitary adaptor fluid inlet
- Optional features include cored holes for liquid temperature control and die cavity plugs to increase flexibility of die without sacrificing performance
- Optional die body material includes titanium, aluminum, or special alloys, based on customer request
- Designs available to accommodate stripe and patch (intermittent) coating

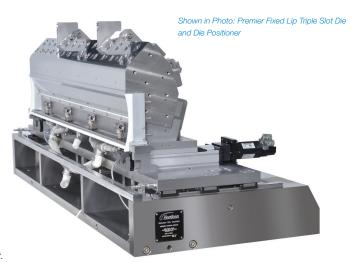


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#### **Range of Capabilities**

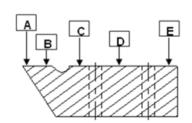
- Die Flatness: Standard flatness is 2.54µm (0.0001"), with capability of manufacturing to 0.5µm (0.00002")
- Coating Weight Accuracy: ± 1-2%
- Coating Thickness: .1µm (0.000039") to 2,300µm (0.091")
- Die Coating Widths: 6.35mm (0.25") to 4,750mm (187")
- Coating Speeds: 152mm/minute (6.0in/minute) to 914mpm (3,000fpm)
- Fluid Viscosity: 1-175,000cps
- Maximum Operating Temperature: 82°C (180°F)

<sup>\*</sup>Above specifications subject to fluid rheology, fluid delivery system, and ancillary equipment.



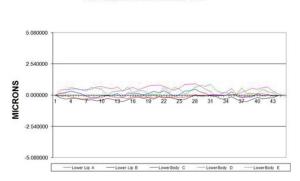
#### **Exceptional Die Flatness - Critical to Your Success**

Ensuring flatness is a critical part of our manufacturing process, leading to a more consistently finished end product. *This results in material and production cost savings for our customers.* 



| μm   | Α         | В         | C         | D         | E         |
|------|-----------|-----------|-----------|-----------|-----------|
| LOW  | -0.334819 | -0.554183 | -0.219364 | -0.069273 | -0.037523 |
| HIGH | 0.115455  | 0.000000  | 0.496456  | 0.935184  | 0.871684  |
| DIFF | 0.450274  | 0.554183  | 0.715820  | 1.004457  | 0.909206  |

#### FLATNESS INSPECTION REPORT



Results from a Typical Flatness Inspection of a Fixed Lip Slot Die

### **Nordson Corporation Polymer Processing Systems**

Nordson Polymer Processing Systems provides customers with engineered components to melt, homogenize, filter, meter, and give shape to plastic and fluid coating materials. Nordson Corporation leverages the collective plastics industry experience from a series of strategic acquisitions to offer a uniquely broad portfolio of industry-leading technologies. Nordson delivers a full range of precision melt stream products — from screws and barrels for extrusion and injection molding — to filtration systems, pumps, and valves — to the extrusion dies and pelletizing systems to meet the constantly evolving needs of the polymer industry.

Nordson Extrusion Dies Industries is part of the Nordson Polymer Processing Systems product offering and is a leading international supplier of flat dies, feedblocks, and related equipment for film, sheet, extrusion coating, fluid coating, and pelletizing. The company operates plants in China, Japan, and the USA, including capabilities in all three countries for remanufacturing its own dies and those built by other suppliers.

