

Ultracoat™ Flexible 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 Slot Die Technology

- **Lower production costs** by coating multiple layers in one pass
- **Improve coating fluid yields** with a pre-metered slot die system that applies 100% of the coating fluid onto the substrate through a positive displacement pump and slot die
- **Reduce contamination and emission of volatiles** while maintaining consistent fluid properties throughout the production run with a closed system
- **Increase production rates and reduce drying time** with a slot coating system that allows for better control of the cross-web uniformity and capability to increase the percentage of solids
- **Boost end product yield** with a uniform coat weight produced by the slot die's manifold geometry, which is designed to evenly distribute the fluid based on its rheology
- **Precisely control the cross-direction profile** of the coating as it exits the die with automatic or manual lip adjustments

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.

Ultracoat flexible lip 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.

Our experienced technicians use state-of-the-art equipment to manufacture slot dies to precise tolerances after precision grinding and polishing. 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 Ultracoat flexible lip slot die will increase your production efficiency and provide significant cost savings.



Features

- Die bodies manufactured from materials designed to resist corrosion
- Manual or automatic lip gap adjustment
- Adjustable lip face offset and lip gap
- Removable lip inserts
- Full system solution: Ultracoat Support System, Modular Coating System (MCS), Dual Chamber Vacuum Box

Options

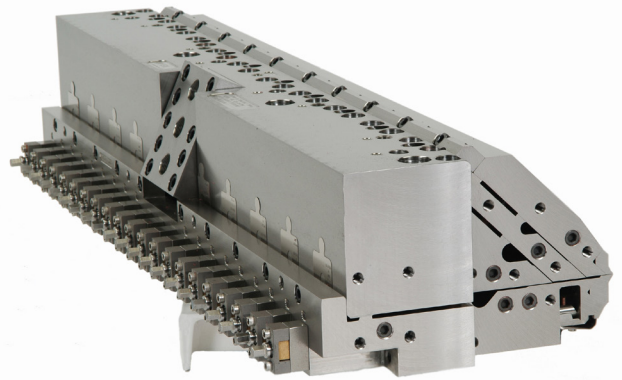
- Cored holes for liquid temperature control
- Replaceable lip inserts
- Autoflex™ adjustment system for automating the flexible lip
- Adjustable or fixed internal deckles

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Range of Capabilities

- **Die Flatness:** Standard flatness is 2.54µm (0.0001")
- **Coating Weight Accuracy:** ± 1.75-3.5%
- **Coating Thickness (Wet):** 12µm (0.000039") to 2,300µm (0.091")
- **Die Coating Widths:** 6.35mm (0.25") to 4,750mm (187")
- **Coating Speeds:** 0.15mpm (0.5fpm) to 900mpm (3,000fpm)
- **Fluid Viscosity:** 1-250,000 cP
- **Maximum Operating Temperature:** 82°C (180°F)

**Above specifications subject to fluid rheology, fluid delivery system, and ancillary equipment.*



Ultracoat Die Types

Ultracoat II

Features

- Coathanger-shaped manifold
- Adjustable lip face offset
- Adjustable lip gap
- Removable lip inserts

Ultracoat V

Features

- Coathanger-shaped manifold
- Adjustable lip face offset
- Adjustable lip gap
- Removable lip inserts
- Fixed wet lip designed to prevent distortion
- Flexible lip and lip adjusting system are located on the lower body

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, Germany, Japan, and the USA, including capabilities in all four countries for remanufacturing its own dies and those built by other suppliers.

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