

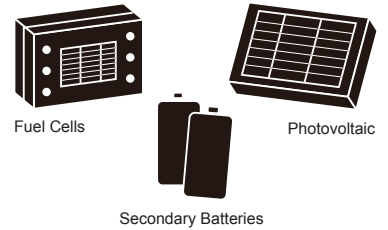
High Precision Coating Tool

# SLOT DIE

The Mitsubishi Slot Die features precision, quality, and durability by adopting Tungsten Carbide technology, top-tier manufacturing, fluid simulation and design, and a detailed inspection process.

## Application Ranges Include

- Lithium Ion Battery
- OLED
- MLCC
- Capacitor
- Functional Films
- Thin Film Solar Cells / Organic Solar Cells
- Fuel Cells
- LCD
- Optical Films



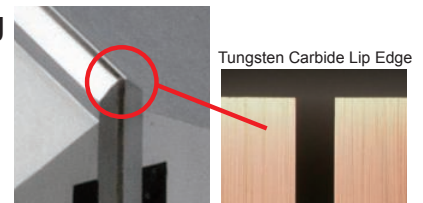
## High Precision from Proprietary Grinding Technology

Our grinding technology enables us to improve the coating uniformity with a razor-sharp coating lip below 2µm/m straightness.



## Long-life and High Quality Coating due to Tungsten Carbide Lips

A combination of corrosion-resistant carbide and wear-resistant stainless steel alloy delivers high quality coating while maintaining durability and longevity.



## Custom Sizing

Can be manufactured to lengths up to 3800mm(150inch) for higher efficiency and productivity.

## ● Application Ranges

- Length Available : Max. 3800mm (Max.150inch)
- Dry Film Thickness : 10nm - 0.7mm (0.0004mils - 0.027inch)
- Wet Film Thickness : 3µm - 1mm (0.12mils - 0.039inch)
- Viscosity : About 1cps - 30,000cps

## Various Coating Patterns

Available in intermittent coating, stripe coating, and patch coating patterns.



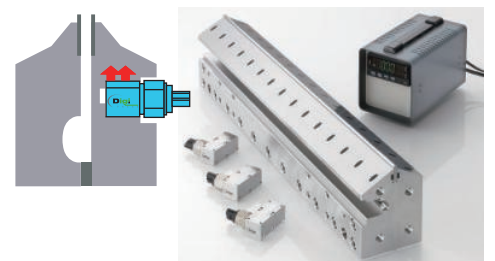
## Slit Width Adjustment Systems

### ● Bolt Adjustment

- Manual adjustment for finer control
- Expansion and contraction of lip gap

### ● Digipress Adjustment

- Quantitative process control
- Consistency and repeatability
- Digital output for user friendliness
- Sliding modules for target area adjustment



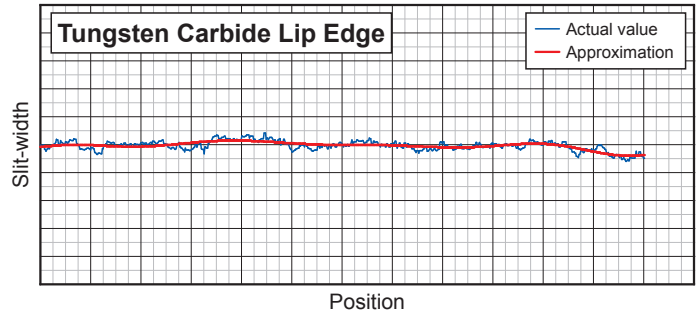
## Precision Non-contact Inspection

An exclusive measuring tool for Mitsubishi Materials' Slot Die

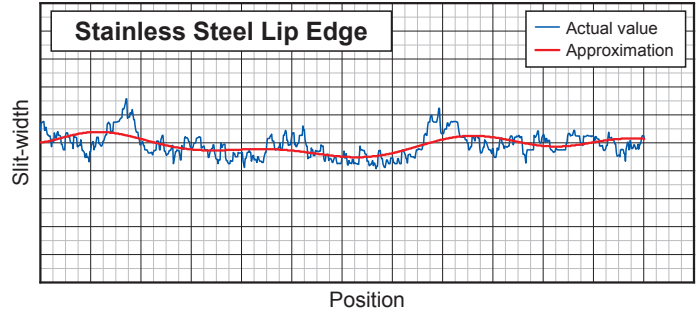


- CCD camera can measure slit width overall.
- Slit width that can be measured: Up to a Maximum of 0.5mm  
JP Patent No.4111395, 3969529

Slit-width Measurement Data



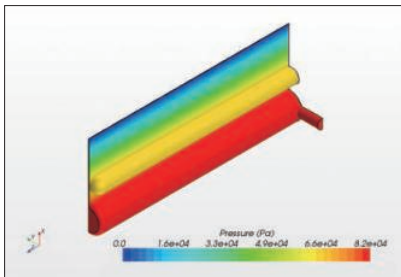
Slit-width Measurement Data



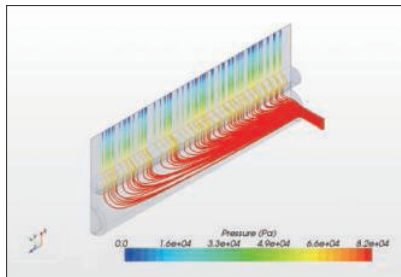
## Fluid Analysis

Mitsubishi Materials can calculate distribution of static pressure and unevenness of film thickness with computer-aided fluid analysis.

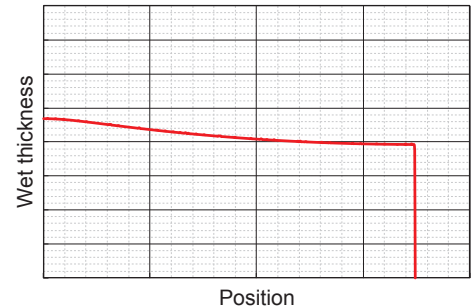
Simulation of inner pressure



Simulation of flow of liquid



Outflow speed distribution



## Hinge Mechanism for Easy Cleaning

Mitsubishi Materials supplies a hinge mechanism as an option for easy and quick cleaning, while maintaining a precision slot die set up. The die may be kept on line in the coating station, reducing downtime between coating runs.



## MITSUBISHI MATERIALS CORPORATION

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2014.01(R2)