

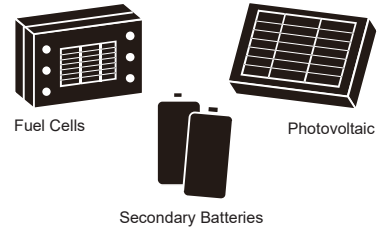
High Precision Coating Tool

SLOT DIE

MMC RYOTEC 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



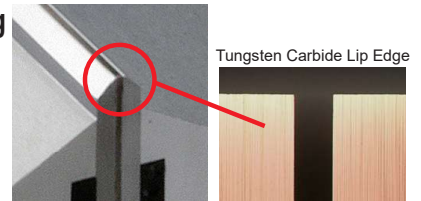
■ **High Precision from Proprietary Grinding Technology**

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**

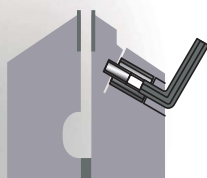
Available in intermittent coating, stripe coating, and patch coating patterns.



■ **Slit Width Adjustment Systems**

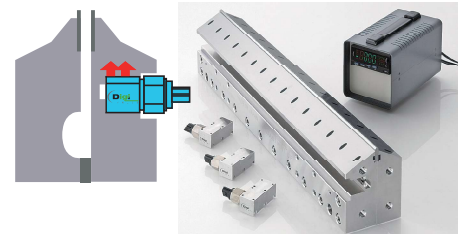
● **Bolt Adjustment**

- 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



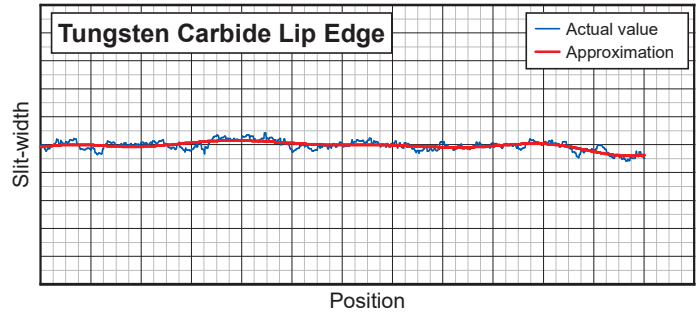
Precision Non-contact Inspection

An exclusive measuring tool for MMC RYOTEC Slot Die

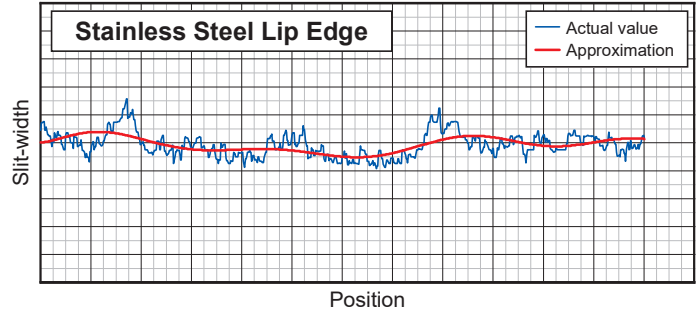


- CCD camera can measure slit width overall.
- Slit width that can be measured: Up to a Maximum of 0.5mm

Slit-width Measurement Data



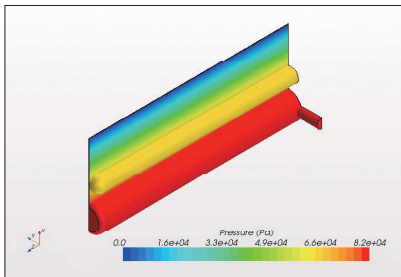
Slit-width Measurement Data



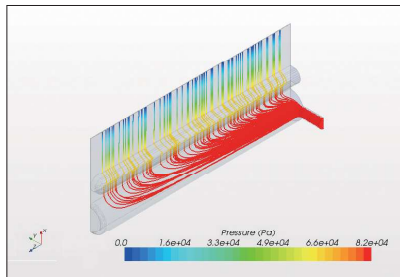
Fluid Analysis

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

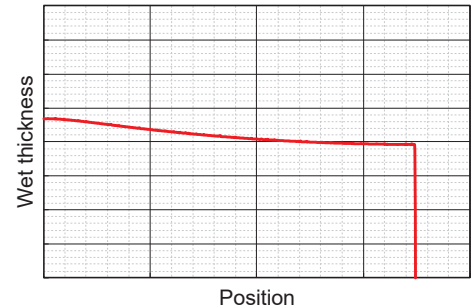
Simulation of inner pressure



Simulation of flow of liquid

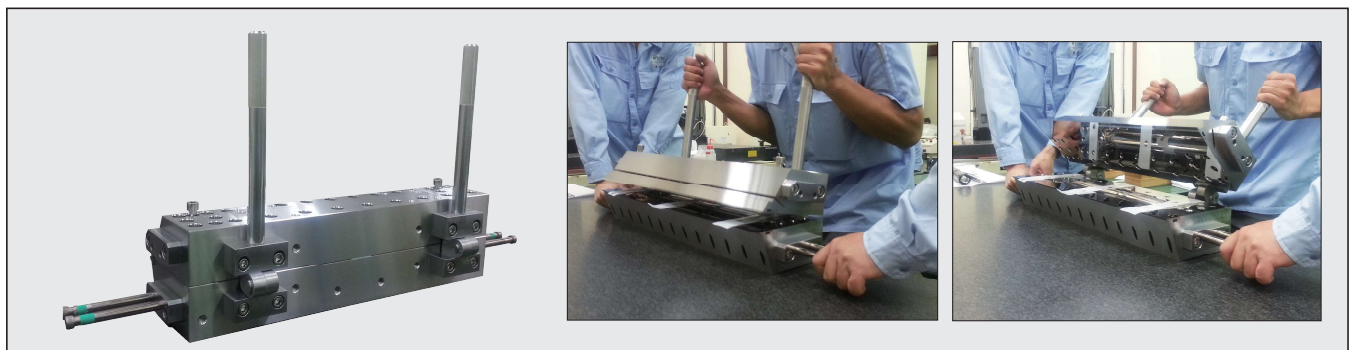


Outflow speed distribution



Hinge Mechanism for Easy Cleaning

MMC RYOTEC 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.



MMC RYOTEC Corporation

A Group Company of MITSUBISHI MATERIALS

Tokyo Office [Eastern Japan/ International]
KFC bldg., 7F, 1-6-1, Yokoami, Sumida-ku, Tokyo 130-0015, Japan
TEL +81-3-5819-5264 FAX +81-3-5819-5259

Gifu Office [Central Japan]
1528-1 Yokoi Nakashinden, Godo-cho, Anpachi-gun, Gifu 503-2394,
Japan (Within Gifu Plant)
TEL +81-584-27-5419 FAX +81-584-27-5022

Osaka Office [Western Japan]
OAP Tower, 22F, 1-8-30, Tenmabashi, Kita-ku, Osaka-shi, Osaka
530-6070, Japan
TEL +81-6-6355-1052 FAX +81-6-6355-1057

<http://www.ryotec.co.jp/en/>