PRODUCT DATASHEET

Spray Pyrolysis Coating Unit

Metal-oxide films by spray pyrolysis





DETAIL – ATOMISING NOZZLE

OVERVIEW

The Tech Inc. Spray Pyrolysis Coating Unit deposits thin metal-oxide and ceramic films by spraying precursor solutions onto a hot substrate, where they decompose into the coating. Nozzle motion, flow and substrate temperature are all programmed.

MODELS AND CONFIGURATIONS

- **Pneumatic nozzle system** – general coatings.
- **Ultrasonic nozzle system** – finer droplets and thinner films.
- **Large-area system** – bigger substrates.

TYPICAL DESIGN DATA

Substrate temperature	Up to 500 °C
Coating area	Up to 200 × 200 mm standard
Feed	0.1 to 20 ml/min
Motion	Programmable XY

APPLICATIONS

Transparent conductive oxides, solar cell layers, gas sensors, ceramic membrane layers and catalysts.

KEY ADVANTAGES

- **No vacuum needed** – low-cost thin films
- **Even films** – programmed motion and temperature
- **Versatile** – many oxide chemistries

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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