

### ◆ DriTech™ Dryer

A revolutionary new dryer for advanced drying of metallization pastes



The new Despatch DriTech™ Dryer introduces a unique hybrid heating technology for the next generation in metallization drying performance.

The dryer is designed to decouple the VOC removal and binder burn-off for a more efficient drying process. A centrally located point-of-generation thermal oxidizer provides maintenance-free VOC abatement ensuring that the chamber remains free of contaminants. Increased air dilution reduces the solvent concentration within the chamber and eliminates dead spots. Airflow is managed to reduce cold air entrainment at the entrance and exit. A rapid peak temperature and internal management of the insulation surface temperature minimizes condensation.

The DriTech™ Dryer is designed for a fast peak thermal profile that delivers lower wafer exit temperature and maximum VOC release at an early stage resulting in maximum paste drying efficiency. The dryer has the flexibility to effectively dry a wide range of difficult to dry pastes.

#### FEATURES AT A GLANCE

- ◆ Handles difficult to dry pastes
- ◆ Dries at fast belt speeds
- ◆ VOC Thermal Oxidizer abatement
- ◆ Decouples VOC removal and binder burn-off
- ◆ Integration with every major metallization printer line
- ◆ 99% uptime
- ◆ Smaller footprint
- ◆ Up to 760 cm/minute belt speed
- ◆ Mesh belt
- ◆ Uninterruptible power supply
- ◆ Safe, simple chamber accessibility



Patent pending

DRITECH™ DRYER	SINGLE LANE	DUAL LANE
<b>PRODUCT CONFIGURATION</b>		
Overall length	295 cm (116 in)	295 cm (116 in)
Overall width	132 cm (52in)	166.5 cm (65.5 in)
Frame height (w/o oxidizer)	196 cm (77 in)	196 cm (77 in)
Height to top of thermal oxidizer	287.5 cm (113 in)	287.5 cm (113 in)
Standard entrance/exit table	20 cm (7.8 in)	20 cm (7.8 in)
Conveyor type (Options include standoffs as well as edge support)	Standard flat belt with balanced spiral open weave, Nichrome V material, friction drive.	Mesh style belt, Nichrome V material
Conveyor height above floor	92 - 100 cm (36 - 39 in)	92 - 100 cm (36 - 39 in)
Conveyor width	25 cm (10 in)	46 cm (18 in)
Net weight	1,200 kg (2,650 lbs)	1,600 kg (3,460 lbs)
<b>ELECTRICAL REQUIREMENTS</b>		
Voltage	380–480V/3 phase/50–60 Hz	
Connected load	80 amps (Max allowed by circuit breaker)	100 amps (Max allowed by circuit breaker)
Typical operating load	34 amps (Typical nominal average load)	65 amps (Typical nominal average load)
<b>EXHAUST</b>		
Facility exhaust	17 m <sup>3</sup> /minute (600 scfm)	34 m <sup>3</sup> /minute (1200 scfm)
<b>PROCESS CAPABILITIES</b>		
Maximum temperature	400°C	400°C
Conveyor speed range	64-762 cm/minute (25-300 ipm)	
Conveyor speed accuracy	± 0.5%	± 0.5%
Throughput (6x6in/156x156mm wafers)	up to 1,700 wafers per hour*	up to 3,400 wafers per hour*

## OPTIONS

- ◆ Belt variations
- ◆ Wafer cooling (For 60°C wafer or less - based on 508 cm/minute belt speed)
- ◆ CE compliance

*Notes: Specifications are subject to change without notice. Contact Despatch Industries for the most updated specification.*

*\* Throughput dependent on belt speed, paste type, solvent load etc. Specification based on 508 cm/minute belt speed, 25 mm spacing and solvent content of 0.4 grams/wafer.*

## DRITECH HYBRID HEATING

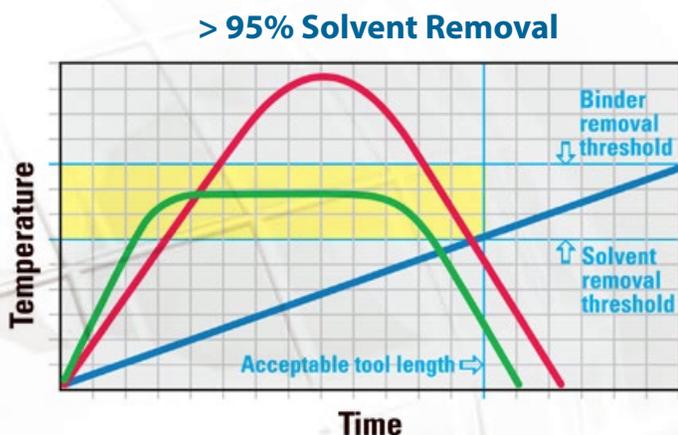
- ◆ Low Thermal Budget
- ◆ Wider Process Window
- ◆ Improved Yields
- ◆ Increased Cell Efficiency

## CONVECTIVE SYSTEMS

- ◆ Heats too slowly
- ◆ Inefficient
- ◆ Wasted Energy

## INFRARED SYSTEMS

- ◆ Overheated paste
- ◆ Delamination and peeling
- ◆ Compromised Aspect Ratio



**DriTech™  
Hybrid Heating**

**Convection**

**Infrared**

*The DriTech™ Dryer with Smart Tube technology decouples time and temperature from drying efficiency by simultaneously preheating the substrate to ideal temperature and effectively evacuating solvent.*

## SERVICE AND TECHNICAL SUPPORT

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