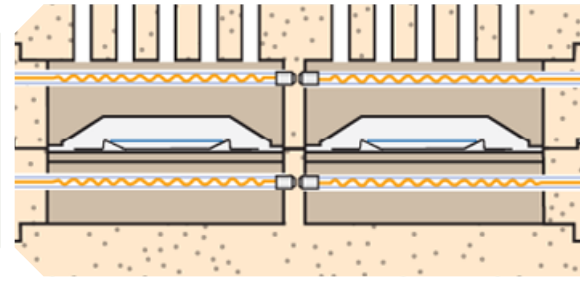


◆ Safire Firing Furnace with DriTech Dryer and PowerLock

The tools you need for process perfection



The Safire™ Firing Furnace with DriTech™ Dryer is designed with advanced features and technologies that ensure superior stability, repeatability and cell efficiency in a high capacity platform.

The Safire's twin chamber design features two independently controlled furnaces which eliminates the lane-to-lane influence found in traditional dual-lane furnaces. Microzone™ Technology provides the ability to precisely tailor thermal profiles around advanced materials and architectures. SolectFire™ enables independent top/bottom temperature control enables optimized frontside and backside firing. The DriTech™ Dryer is designed for a fast peak thermal profile that delivers maximum VOC release at an early stage resulting in maximum paste drying efficiency. The dryer's thermal oxidizer ensures that VOCs are removed to prevent furnace and facility contamination.

The Safire now features PowerLock™ technology which suppresses LID on PERC cells from 3-6% down to ~1%. The system is integrated into the Safire resulting in a small footprint and no material handling. PowerLock uses LED light that provide twice the lumens per watt and ten times longer life compared to the arc lamps used in other systems on the market.

FEATURES AT A GLANCE

- ◆ Uniform, stable and repeatable cavity temperature ($\pm 2^{\circ}\text{C}$)
- ◆ Dual independent chambers with no lane to lane influences
- ◆ Rapid thermal ramping (up to $250^{\circ}\text{C}/\text{sec}$)
- ◆ Enhanced thermal cooling (up to $140^{\circ}\text{C}/\text{sec}$)
- ◆ Up to 762 cm/min belt speed
- ◆ Enhanced Microzone™ Technology for precise thermal profile control
- ◆ Enhanced SolectFire™ Technology for top/bottom temperature control
- ◆ DriTech™ Dryer with integrated VOC Thermal Oxidizer
- ◆ Hot swappable lamps on furnace
- ◆ 99% uptime (highest in the industry)



POWER LOCK™
LID PREVENTION

Safire™
WITH MICROZONE TECHNOLOGY

SAFIRE WITH DRITECH

PRODUCT CONFIGURATION	
Overall length	968 cm (381 in)
Width at widest point	175.2 cm (69 in)
Height to top of thermal oxidizer	284 cm (111.8 in)
Standard entrance/exit table	60.3 cm (23.7 in)/ 99.5 cm (39.2 in)
Open inspection area	46 cm (18 in)
Conveyor type	Lightweight balance spiral weave, NiCr V Material, friction drive with stand-offs
Conveyor height above floor	93 cm (36.6 in)-100 cm (39.4 in)
Conveyor width (x2)	25.4 cm (10 in)
Net weight	4,600 kg (10,141 lbs)
Lane-to-lane pitch	35 cm (13.8 in)

PRODUCT CONFIGURATION	SAFIRE FIRING	DRITECH DRYER
	Overall length	658 cm (259 in)
Overall width	175.2 cm (69 in)	167 cm (65.8 in)
Overall height (without oxidizer)	247 cm (97.2 in)	193 cm (76 in)
Net weight	3,000 Kg 6,613 lbs)	1,600 kg (3,460 lbs)

ELECTRICAL REQUIREMENTS		
Voltage	380-480 V/3 Phase/ 50-60 Hz	400 V -10%, +15% /3-Phase/50-60 Hz
Connected load	122 amps (85 kVA)	100 amps (69 kVA)
Typical operating load	85 amps (59 kVA)	65 amps (45 kVA)

WATER REQUIREMENTS		
Typical flow	28 lpm	NA
Pressure (maximum)	4 Bar (60 psi)	NA
pH level	7.2-7.6	NA
Recommended inlet temperature	10-20°C (50-68°F)	NA

EXHAUST		
Process exhaust	1 connection	1 connection
VOC Oxidizer exhaust	NA	34 m3/m (1200 scfm)
Cabinet exhaust	8.5 m3/min (300 scfm)	NA

PROCESS ATMOSPHERE		
Clean dry air (CDA) (Typical)	740 lpm	NA

PROCESS CAPABILITIES		
Maximum temperature	1100°C	400°C
Conveyor speed range	80-762 cm/min (31 -300 ipm)	
Conveyor speed accuracy	± 0.5%	± 0.5%
Throughput (6x6in/156x156mm wafers *	up to 4,000 wafers/hour	up to 4,000 wafers/hour

Notes: Specifications are subject to change without notice. Contact Despatch Industries for the most updated specification. * Front-side printed last. Throughput dependent on belt speed, paste type, solvent load etc.

OPTIONS

- ◆ Profiling systems
- ◆ CE compliance
- ◆ PowerLock LID prevention

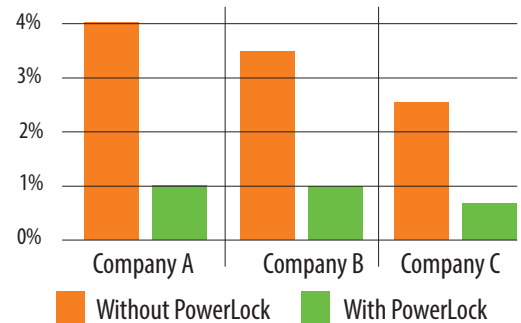
SPEC CHANGES WITH POWERLOCK

PRODUCT CONFIGURATION	
Overall length (Safire)	995 cm (392in)
Net weight (Safire)	5,375 Kg (11,850 lbs)
Overall length with DriTech	1311 cm (516 in)
Net weight with DriTech	6,000 Kg (13,228 lbs)

ELECTRICAL REQUIREMENTS (ADDITIONAL DROP)	
Voltage	380-480 V/3 Phase/ 50-60 Hz
Connected load	184 amps

WATER REQUIREMENTS (ADDITIONAL DROP)	
Typical flow	28 lpm
Pressure (maximum)	4 Bar (60 psi)
pH level	7.2-7.6
Recommended inlet temperature	10-20°C (50-68°F)

LID Cell Efficiency Loss and Prevention



PowerLock™ LID Prevention minimizes the effect of light induced degradation.

SERVICE AND TECHNICAL SUPPORT

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