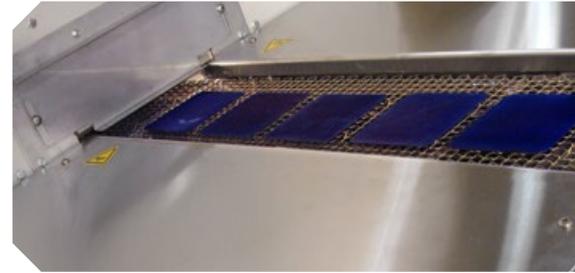


◆ CF-SL Metallization Drying and Firing Furnaces The world's best selling metallization furnace



For highly efficient solar cells at the lowest possible cost, more solar manufacturers choose Despatch Firing Furnaces than any other brand.

The drying and firing system is easily integrated with every major metallization printer line and provides advanced technology to accommodate next generation pastes.

The furnace is now available with SolectFire™ Technology. This critical advancement opens the process window and gives operators independent open and closed loop control of the top and bottom of each firing zone. This innovative decoupling technology provides greater thermal control and sets the stage for next generation pastes.

Despatch CF-Series metallization furnaces are designed for high throughput, ease of maintenance, and consistent process repeatability ensuring consistently high yields and superior product quality. Patented push-button chamber access and optional VOC Thermal Oxidizers make maintenance easy. These innovations maximize performance and up time and result in lowest cost of ownership while producing the highest efficiency cells.

FEATURES AT A GLANCE

- ◆ Rapid thermal ramping (up to 200°C/sec)
- ◆ Enhanced thermal cooling (up to 100°C/sec)
- ◆ Up to 300 ipm belt speed
- ◆ Uniform, stable and repeatable firing temperature (+/- 2°C)
- ◆ Edge-contact belt
- ◆ Soft start with reduced connected load
- ◆ Enhanced software recipe management
- ◆ Advanced graphical user interface
- ◆ Master production control interface
- ◆ Data logging
- ◆ Redundant over-temperature shutdown
- ◆ Safe, simple chamber accessibility
- ◆ Eye-level electronics for easy maintainance
- ◆ Failed element monitor
- ◆ Uninterruptible power supply
- ◆ Integration to wafer automation equipment

Patented technology



SolectFire™
TECHNOLOGY

New advanced thermal control

	CF-SL FIRING	CDF-SL DRYING/FIRING
PRODUCT CONFIGURATION		
Overall length	736 cm (290 in)	1147 cm (451.5 in)
Overall width	121 cm (47.5 in)	121 cm (47.5 in)
Overall height	164 cm (64.5 in)	164 cm (64.5 in)
Standard entrance/exit table	93.5 cm (36.8 in)	93.5 cm (36.8 in)
Open inspection area	NA	46 cm (18 in)
Conveyor type	Lightweight balance spiral weave, Nichrome V material, friction drive with stand-offs	
Conveyor height above floor	91.5-99 cm (36-39 in)	91.5-99 cm (36-39 in)
Conveyor width (<i>custom configurations up to 24in/61cm wide available</i>)	25.4 cm (10 in)	25.4 cm (10 in)
Net weight	2,270 kg (5,000 lbs)	3,400 kg (7,500 lbs)
ELECTRICAL REQUIREMENTS		
Voltage	380–480V/3 phase/50–60 Hz	
Connected load	46 Amps (38 kVA)	65 Amps (54 kVA)
Typical operating load	32 Amps (26 kVA)	44 Amps (37 kVA)
WATER REQUIREMENTS		
Typical flow	11 lpm	11 lpm
Pressure (maximum)	4 Bar (60 psi)	4 Bar (60 psi)
pH level	7.2–7.6	7.2–7.6
Recommended inlet temperature	16–18°C (59–64°F)	16–18°C (59–64°F)
EXHAUST		
Process exhaust venturi assist <i>*hood required, no direct connection</i>	2 sets	4 sets
Cabinet exhaust	850 M ³ /hr (500 scfm)	1700 M ³ /hr (1,000 scfm)
PROCESS ATMOSPHERE		
Clean dry air (CDA) (Typical)	19 M ³ /hr (11 scfm)	50.5 M ³ /hr (30 scfm)
PROCESS CAPABILITIES		
Maximum temperature (Drying/firing)	1000°C	400°C/1,000°C
Conveyor speed range	66–762cm/min (26–300 ipm)	
Conveyor speed accuracy	± 0.5%	± 0.5%
Throughput (6x6in/156x156mm wafers *)	up to 2,500 wafers/hour	up to 1,700 wafers/hour

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.

SPEC CHANGES WITH POWERLOCK

PRODUCT CONFIGURATION	
Overall length (CF-SL)	936 cm (369in)
Net weight (CF-SL)	3,084 Kg (6,800 lbs)
Overall length (CDF-SL)	1,347 cm (530 in)
Net weight (CDF-SL)	4,218 Kg (9,300 lbs)
ELECTRICAL REQUIREMENTS (ADDITIONAL DROP)	
Voltage	380-480 V/3 Phase/ 50-60 Hz
Connected load	75 amps / 29kVA
WATER REQUIREMENTS (ADDITIONAL DROP)	
Typical flow	17 lpm
Pressure (maximum)	4 Bar (60 psi)
pH level	7.2–7.6
Recommended inlet temperature	10–20°C (50–68°F)



OPTIONS

- ◆ PowerLock LID prevention
- ◆ SolectFire™ Technology
- ◆ Profiling systems
- ◆ VOC thermal oxidizer
- ◆ SECS/GEM
- ◆ CE compliance



CDF Firing and drying furnace with optional VOC Thermal Oxidizers.

SERVICE AND TECHNICAL SUPPORT

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 service fax: 1-952-469-8193
 service@despatch.com
 usparts@itweae.com

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