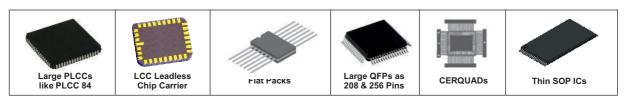
# Temperature profile based Hot Air System Model ST325-SP





# Wide range of Hot Air Nozzles are available (please select as per requirement) to solder and desolder Fine-Pitch QFPs, PLCCs & SMD ICs up to 33x33mm size



The handpiece is fitted with an adjustable, spring loaded vacuum pik to lift components from the PCB and to hold the component in the nozzle during alignment.

The "give" in the spring loading is set, but the absolute position of the vacuum pik is adjustable over a 1.5" length.

The ST 325 is a digital, self-contained system that is fully programmable and can be used to remove or install surface mount components when individual or multiple operations are to be run. From the front panel, the system can be used in either manual or "timed" modes. Manual mode means that the system generates heated airflow when the cycle button is pressed; when it is pressed a second time the system shuts off. "Timed" modes allow the operator to create up to 20 "Profiles" that consist of time and temperatures parameters to ensure process control and repeatability. Both cycle start and vacuum functions are activated with conveniently located switches on the handpiece.

The ST 325 comes standard with one K-type thermocouple input that can be used to monitor the thermal environment at the work site with optional software. The system also comes with the Lo-Flo pump and the vacuum wand (PV-65) for manipulating components manually. The heavy-duty, durable metal housing ensures years of service and the sloped face of the front panel is a standard feature for ease of use. Other ST systems can be stacked on to the ST 325 to preserve bench space. The capabilities of the ST 325 can be used to remove or install just about any type of standard pitch surface mount component when coupled with the ST 500, ST 525, or ST 550.

The system can install standard BGA packages when fitted with the ST 500, ST 525 or ST 550, ST 450 or ST 400, and the optional PC or laptop software. Course pitch area array components are aligned using a proven, reliable template method that is easy to use

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#### Scope of Supply

- ST325 Hot Air Station
- Hot Air Pencil fitted with Hot Air Nozzle
- Hot Air Pencil Stand integrated with adjustable PCB Fixture
- IRPH-4 Infrared Preheating Plate

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#### **Features**

- Multi-level password lock-out prevents unauthorized changes.
- User definable temperature zone.
- Audible countdown timer for end of cycle indication in the Timed and Program modes.
- On-screen display of parameters (temperature, time) during operation.
- Store and recall up to 20 profiles (40 with optional software).
- Quiet-Flo turbine blower offers nearly silent operation.
- Hi-Flo Vacuum Pump for holding component securely.
- · Lo-Flo Vacuum Pump for component wand.

### **Technical Specifications**

Specifications	ST 325
Dimensions	134mm x 245mm x 254mm
Weight	4.5kgs (9.9lbs)
Input Supply	197-253 VAC, 50/60 Hz,
Power Consumption	575 Watts max.
Temperature Control	Closed loop,
Temperature Stability	± 9°C (±15°F) at idle tip temp.
Temperature Range	149° to 482°C nominal
Airflow Range	5-22 slpm

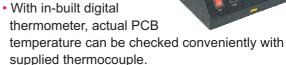


Newly designed Hot Air Pencil Stand integrated with adjustable PCB Fixture is also part of supply Maximum size of PCB: 380x380mm

Fine UP/DOWN adjustable movement of Hot Air Pencil allows Preheating of large SMD ICs as well precise hot air reflow during desoldering

## **IRPH-4 Bottom Infra Red Pre-Heating Plate**

 High quality long life type Infrared Ceramic Heater ensures fast and even heating with high efficiency



Stable temperature due to closed loop PID control

# **Specifications:**

Heating Power
 Temperature Range
 Plate Area
 Measurement Range
 600 Watt
 50°C ~ 350°C
 130 x 130mm
 0°C ~ 600°C

of Thermometer

#### 6 Pcs Hot Air Nozzle Set Model SON-PNS0309 for different applications

Hot Air Nozzles		Component type	Dimensions	Part Number	
a Con		SO8	5.0mm Diameter	4028-1012-P1	
(3)		PLCC28	12.5mm x 12.5mm	4028-2003	
		QFP80, 100	17.5mm x 23.0mm	4028-2501-NB	
		PLCC52	20.0mm x 20.0mm	4028-2006- NB	
		QFP132	25.5mm x 25.5mm	4028-2503-NB	
		QFP160	31.5mm x 31.5mm	4028-2504-NB	

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## **Hot Air Nozzles for ST-325**

Hot Air Nozzles f	or 51-325		
	Component	BGA Size (Nominal)	Part Number
	BGA-204/225/256/272/292/320/324	27mm (1.1") <b>H</b> x 27mm (1.1") <b>W</b>	4028-5001
	BGA-169/168	23mm (0.91") <b>H</b> x 23mm (.91") <b>W</b>	4028-5002
	BGA-313/352	35mm (1.38") <b>H</b> x 35mm (1.38") <b>W</b>	4028-5003
	BGA-144	13mm (0.51") <b>H</b> x 13mm (0.51") <b>W</b>	4028-5004
	BGA-121/196	15mm (0.59") <b>H</b> x 15mm (0.59") <b>W</b>	4028-5005
	BGA-86	16.25mm (0.64") <b>H</b> x 17.75mm (0.70") <b>W</b>	4028-5006
	BGA-68	13.45mm (0.53") <b>H</b> x 14.97mm (0.59") <b>W</b>	4028-5007
	BGA-32	10.42mm (0.41") <b>H</b> x 10.42mm (0.41") <b>W</b>	4028-5008
	BGA-40/44	11.97mm (0.47") <b>H</b> x 13.21mm (0.52") <b>W</b>	4028-5009
	BGA-18	8.64mm (0.34") <b>H</b> x 8.90mm (0.35") <b>W</b>	4028-5010
	BGA-421/432/736	40mm (1.57") <b>H</b> x 40mm (.57") <b>W</b>	4028-5012
	BGA-560	42.5mm (1.67") <b>H</b> x 42.5mm (1.67") <b>W</b>	4028-5013
	BGA-240/304/432	31mm (1.22") <b>H</b> x 31mm (1.22") <b>W</b>	4028-5014
	BGA-256	17mm (0.67") <b>H</b> x 17mm (0.67") <b>W</b>	4028-5015
	BGA-252/255/256	21mm (0.83") <b>H</b> x 21mm (0.83") <b>W</b>	4028-5016
	BGA (Short Adpt.)	21mm (0.83") <b>H</b> x 21mm (0.83") <b>W</b>	4028-5017
	BGA-479/493/584	37.5mm (1.48") <b>H</b> x 37.5mm (1.48") <b>W</b>	4028-5018
	BGA-96/121	19mm (0.75") <b>H</b> x 19mm (0.75") <b>W</b>	4028-5019
	BGA-240/324	32mm (1.26") <b>H</b> x 32mm (1.26") <b>W</b>	4028-5020
	BGA-256/400	29mm (1.14") <b>H</b> x 29mm (1.14") <b>W</b>	4028-5021
•	BGA-100	16mm (0.63") <b>H</b> x 16mm (0.63") <b>W</b>	4028-5022
_	BGA-119	22mm (0.87") <b>H</b> x 14mm (0.55") <b>W</b>	4028-5023
	BGA-169	19.25mm (0.76") <b>H</b> x 19.25mm (0.76") <b>W</b>	4028-5024
	BGA-196	18.5mm (0.73") <b>H</b> x 18.5mm (0.73") <b>W</b>	4028-5025
	BGA-240	26.4mm (1.04") <b>H</b> x 26.4mm (1.04") <b>W</b>	4028-5026
	BGA-256	30mm (1.18") <b>H</b> x 30mm (1.18") <b>W</b>	4028-5027
	BGA-475	25mm (0.98") <b>H</b> x 32.3mm (1.27") <b>W</b>	4028-5028
	BGA-521	43mm (1.69") <b>H</b> x 43mm (1.69") <b>W</b>	4028-5029
	BGA-540	44mm (1.73") <b>H</b> x 44mm (1.73") <b>W</b>	4028-5030
	BGA-625	32.5mm (1.28") <b>H</b> x 32.5mm (1.28") <b>W</b>	4028-5031
	BGA-169	22mm (0.87") <b>H</b> x 22mm (.87") <b>W</b>	4028-5032
	BGA-361	33mm (1.29") <b>H</b> x 33mm (1.29") <b>W</b>	4028-5033
	BGA-720	47.5mm (1.87") <b>H</b> x 47.5mm (1.87") <b>W</b>	4028-5034
	BGA-303	21mm (0.83") <b>H</b> x 25mm (0.98") <b>W</b>	4028-5035
	BGA (Short Adpt.)	17mm (0.67") <b>H</b> x 17mm (0.67") <b>W</b>	4028-5036
	BGA (Small Cup)	21mm (0.83") <b>H</b> x 21mm (0.83") <b>W</b>	4028-5037
	Micro BGA-48	7.75mm (0.31") <b>H</b> x 5.6mm (0.22") <b>W</b>	4028-5501
	Micro BGA-48	7.85mm (0.31") <b>H</b> x 6.40mm (0.25") <b>W</b>	4028-5502
	Calibration Nozzle	27mm (1.1") <b>H</b> x 27mm (1.1") <b>W</b>	4028-2010

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# **Hot Air Nozzles for ST-325**

Pattern Nozzles	Component Type	Jet Spacing	Jet Length	Part Number
	SOIC-8 (JEDEC)	4.1mm (0.16")	6.1mm (0.24")	4028-4001-P1
F	SOIC-14/16 (JEDEC)	4.1mm (0.16")	10.9mm (0.43")	4028-4002-P1
	SOICL-16 (JEDEC)	7.9mm (0.31")	10.9mm (0.43")	4028-4003
	SOICL-20 (JEDEC)	7.9mm (0.31")	13.5mm (0.53")	4028-4004
all	SOICL-24 (JEDEC)	7.9mm (0.31")	16mm (0.63")	4028-4005
	SOICL-28 (JEDEC)	7.9mm (0.31")	18.5mm (0.73")	4028-4006
	SOICL-32 (JEDEC)	11.68mm (0.46")	20.83mm (0.82")	4028-4007
	TSOP-48 (Type I	18.6mm (0.734")	13.5mm (0.53")	4028-4505
	TSOP-32/40/44/50 (Type II)	10.4mm (0.41")	21.35mm (0.84")	4028-4506
Single Jet Nozzles	Shape of Jet Tube	Nozzle Size (Nominal)		Part Number
	Curved, Round	3.0mm diameter	(0.1" diameter)	4028-1001-P1
	Curved, Round	5.0mm diameter	(0.2" diameter)	4028-1002-P1
	Curved, Round	8.0mm diameter	(0.3" diameter)	4028-1003-P1
	Straight, Round	3.0mm diameter	(0.01" diameter)	4028-1011-P1
(4)	Straight, Round	5.0mm diameter	(0.2" diameter)	4028-1012-P1
	Straight, Round	8.0mm diameter	(0.3" diameter)	4028-1013-P1
	Flat Jet	13.21mm length (0.52)		4028-1021-P1
	Flat Jet	23.37mm length (0.92)		4028-1022-P1
Box Nozzles	Component Type	Nozzle Size (Nominal)		Part Number
	PLCC	32.5mm (1.28") H x	46.5mm (1.83") W	4028-1501
	PLCC-18 (Non Baffled)	8.5mm (0.34") H x	12.1mm (0.48") W	4028-2001
_	PLCC-20 (Non Baffled)	10.2mm (0.40") H x 10.2mm (0.40") W		4028-2002
	PLCC-28 (Non Baffled)	12.8mm (0.50") H x 12.8mm (0.50") W		4028-2003
	PLCC-32 (Non Baffled)	12.8mm (0.50") H x 15.3mm (0.60") W		4028-2004
915	PLCC-44 (Non Baffled)	17.9mm (0.70") H x 17.9mm (0.70") W		4028-2005
	PLCC-52	20.4mm (0.80") H x 20.4mm (0.80") W		4028-2006
	PLCC-68	25.5mm (1.01") H x 25.5mm (1.01") W		4028-2007
	PLCC-84	30.6mm (1.20") H x 30.6mm (1.20") W		4028-2008
	PLCC-100	38.9mm (1.53") H x 38.9mm (1.53") W		4028-2009
	QFP-80/100	18.1mm (0.71") H x 24.1mm (0.95") W		4028-2501
-4	QFP-64/80 (Non Baffled)	17.0mm (0.67") H x 17.0mm (0.67") W		4028-2502
	QFP-132	26.9mm (1.06") H x	26.9mm (1.06") W	4028-2503
	QFP-160	31.9mm (1.26") H x 31.9mm (1.26") W		4028-2504
	QFP-208	31.5mm (1.24") H x 31.5mm (1.24") W		4028-2505
	QFP-240	34.6mm (1.36") H x 34.6mm (1.36") W		4028-2506
	BQFP-100	23.5mm (0.925") H x 23.5mm (0.925") W		4028-2507
	BQFP-84	20.9mm (0.8") H x 20.9mm (0.8") W		4028-2508
	BQFP-132	27.1mm (1.07") H x	27.1mm (1.07") W	4028-2602
	TQFP-32 (Non Baffled)	11.5mm (0.453") H x	11.5mm (0.453") W	4028-3002
	TQFP-120 (Non Baffled)	15.5mm (0.610") H x	15.5mm (0.610") W	4028-3004
	TQFP-48	40.0 (0.7042) 11	18.6mm (0.734") W	4028-4505

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