## reflow soldering

# Uniflow® 2 Reflow Power Supply

Uniflow 2 is a power supply for pulse-heated selective soldering, conductive adhesive bonding and thermocompression bonding

- Closed loop temperature and time control
- Displays summary process data
- Real time temperature graph
- Stores 15 heating profiles
- Statistical and graphical data output to PC
- Process alarms and counters.
- Remote programming via PC



Utilizing pulsed heat technology, the Uniflow 2 power supply provides targeted heating and precision temperature control for a variety of joining applications:

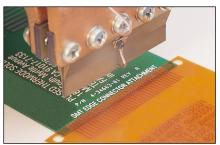
- · Flex circuits
- · Ribbon cables
- Wires
- · Coaxial cables
- SMT components
- Single or dual sided edge connectors
- Thermocompression bonding of gold ribbon

### **Application Solutions**

Cellular phones, pagers, handsets, LCD monitors, laptops, palmtops, disk drives, industrial instrumentation, dashboards, satellite navigation systems, cassette players, on-board computers, home audio and video, calculators, watches, cameras, electronic games, CD players, cockpit instrumentation and displays, medical devices, and many more . . .

#### TYPICAL APPLICATIONS







#### TECHNICAL SPECIFICATIONS

Temperature Profile Specifications		
Temperature Range		
Preheat	60 to 300°C	
Heat	60 to 600°C	
Heat Extended Range	60 to 999°C	
Time Periods (in 0.1 Sec. Increments)		
Preheat	0 to 99.9 seconds or continuous	
Rise Time	0 to 9.9 seconds	
Heat	0.1 to 99.9 seconds	
Temperature Control		
Accuracy	$\pm 2\%$ of reading or $\pm 6$ °C, whichever is greater	
Repeatability	±1% of reading	
Thermocouple Input	Type E, J or K	
Heating Rate Control	Four coarse adjustments: fast, medium, slow,	
	very slow	
Programmable Heat Profiles	Fifteen (15) non-volatile memory	

Switched Input Electrical Specifications		
Operator Initiation	1 or 2 Level Footswitch	
Dedicated Relays	24 VAC/0.3A	
Head Cool	ON/OFF for cooling thermode holder	
Solder Cool	ON@COOL, OFF@PREHEAT	
Programmable Relays	4 each, electromechanical (24VAC or +24DC)	
Contact Rating	24VAC/24DC, 0.3A	
Communication Ports	RS-232, RS-485	
Programmable Relay	Reflow, preheat, alarm, clean thermode, replace	
Functions –	thermode, end reflow, head valve active, system ready	

Physical/Environmental	
Dimensions H x W x D Inches (mm)	12.5 x 10.0 x 20.8 (317 x 254 x 527)
Operating Temperatures	104°F (40°C)
Weight Lbs. (kg)	4kVA Model – 58 (26.31)
	2kVA Model – 46 (20.86)
Relative Humidity, Maximum	93% @ 104°F (40°C)

#### **ORDERING GUIDE**

Power Supply Ordering Guide		
Power Supplies	Description	Electrical
UNFC2/120	Uniflow Power Supply, 120 VAC, 2kVA Transformer	15A, Single Phase, 50 or 60 Hz
UNFC4/240	Uniflow Power Supply, 240 VAC, 4kVA Transformer	15A, Single Phase, 50 or 60 Hz
UNFC4/240 EAPRO	Uniflow Power Supply, 240 VAC, 4kVA Transformer	15A, Single Phase, 50 or 60 Hz



The Uniflow 2 matches up with SA Style Heads

Optional Equipment Ordering Guide			
Suggested Basic System:	Power Supply, Reflow Head, Thermode, Footswitch		
Reflow Heads	Force Range lbs. (Newtons)	Application Guideline	
50F/LRF	0.08 to 2.2 (.4 to 9.8)	Light Force Pinpoint Soldering	
50F/RF	0.275 to 2.2 (1.22 to 9.8)	Light Force Pinpoint Soldering	
87A/24	0.25 to 20 (1.1 to 89)	Small/Medium Soldering	
87F	0.25 to 20 (1.1 to 89)	Small/Medium Soldering	
87SA/24	2 to 20 (8.9 to 88.9)	Flex Soldering/Bonding	
84SA/24	5 to 40 (22.2 to 177.9)	Flex Soldering/Bonding	
180SA/24	7 to 100 (31.1 to 444.0)	Flex Soldering/Bonding	

For more information on Miyachi Unitek weld heads, request literature #991-100.

Pulse Heated Thermodes	Description	Application/Size*: Inches (mm)
17P	Peg Tip	Thermocompression Bonding-Single Point Soldering / .020 to .093 (0.5 to 2.4)
17T	"T" Tip	Thermocompression Bonding-Single Point Soldering / .008 x .010 (0.2 x 0.25)
17BM	Blade	Multiple Contacts / .030 to 1.0 (0.76 to 25.4)
17F	Nichrome Fold-Up	Multiple Contacts / .250 to 1.0 (6.45 to 25.4)
17TD	Three Dimensional	Multiple Contacts / 1.0 to 3.0 (25.4 to 76.2)"

For more information on pulse heated thermodes, request literature #991-410.

#### **Your Local Representative**



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<sup>\*</sup>NOTE: Standard size ranges are listed, consult Miyachi Unitek for custom requirements and application advice.