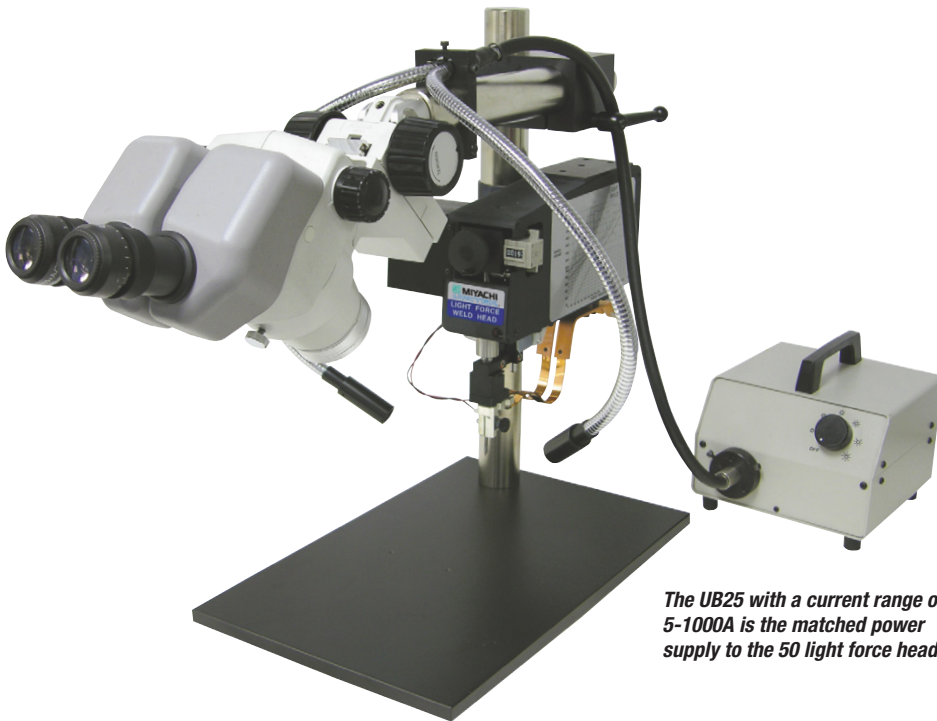


# 50 Series Light Force Weld Heads



The UB25 with a current range of 5-1000A is the matched power supply to the 50 light force head.

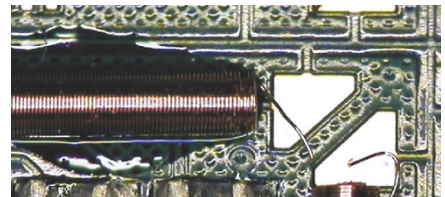
- Extremely light force (to 40g) for joining fine wires and ribbons
- Viewing microscope (optional) for precise part positioning
- Precise force adjustment
- No electrode deflection



## TYPICAL APPLICATIONS



Wire to chip



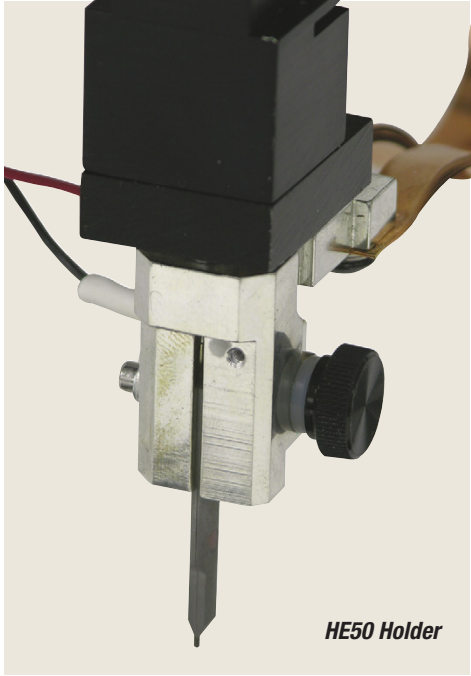
Fine magnet wire



Reflow contact to pad

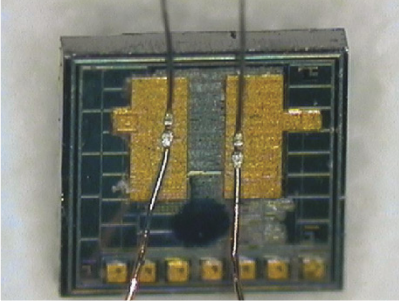
## KEY FEATURES

- **40 – 1000g force range** – Designed to join fine wires and ribbons between 0.0003” – 0.01” thickness
- **Numeric force adjustment** – Precisely set the force with 3-digit numeric counter
- **No deflection through stroke** – Ensures consistent electrode contact, avoiding welding blowouts or inconsistency
- **Configurable head design** – Multiple electrodes/thermodes accommodate a wide variety of applications
- **Foot or air actuation** – May be operated by cable pedal or using an air kit
- **Microscope accessory** – Can be fitted with a microscope, essential for manual parts positioning

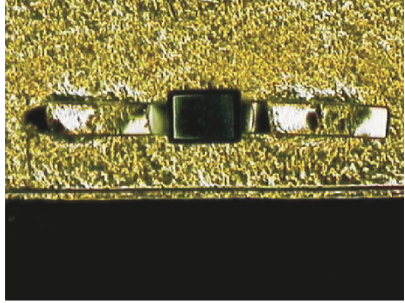


HE50 Holder

### MODEL 50F OR 50A/24 ELECTRODE HOLDER WITH UNITIP ELECTRODE



0.001" gold coated copper wire to gold pad

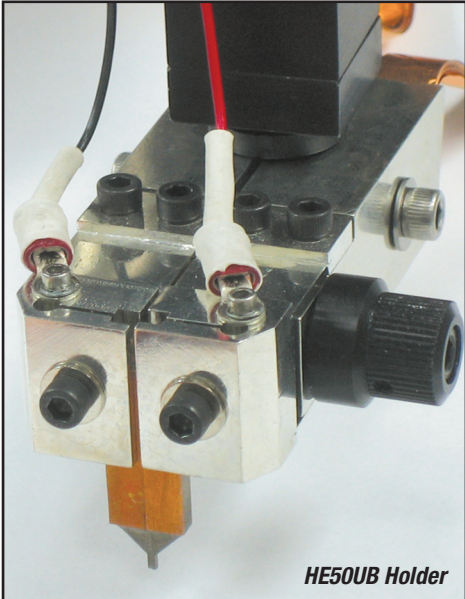


0.005" gold ribbon to gold pad

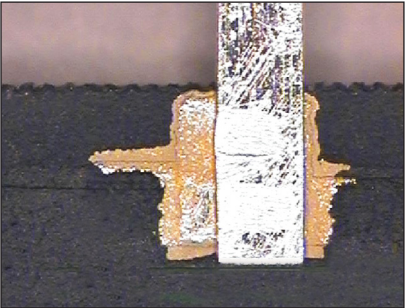
- Single-sided parallel gap welding
- Accessibility into electronic packages
- Ribbon and wire thickness from 0.0003" to 0.005"
- Best suited for conductive materials

### MODEL 50UB ELECTRODE HOLDER WITH UNIBOND ELECTRODES

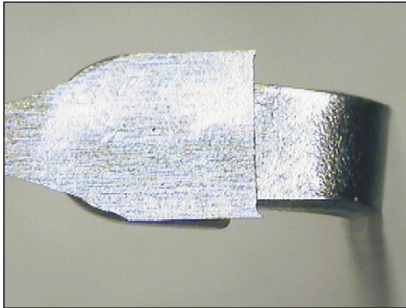
- Single-sided parallel gap welding (adjustable gap)
- Electrode footprint size promotes electrode lifetime
- Ribbon and wire thickness from 0.0005" to 0.005"
- UTA adapter available for Unitips
- Welds both resistive and conductive materials



HE50UB Holder



0.005" silver tab to metalized pad

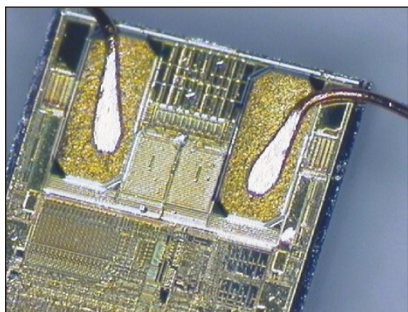


0.002" nickel strip to block

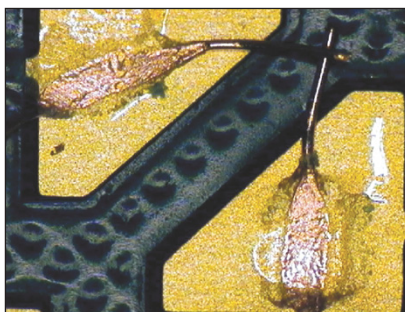


## MODEL 50RF – 17BM STYLE BLADE THERMODE MODEL 50LRF – 17P STYLE THERMODE

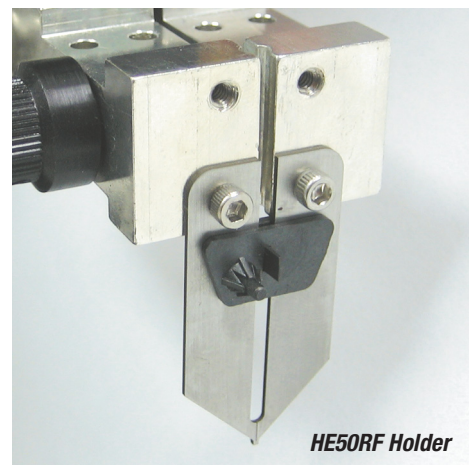
- Blade or single point thermode heating element according to part accessibility



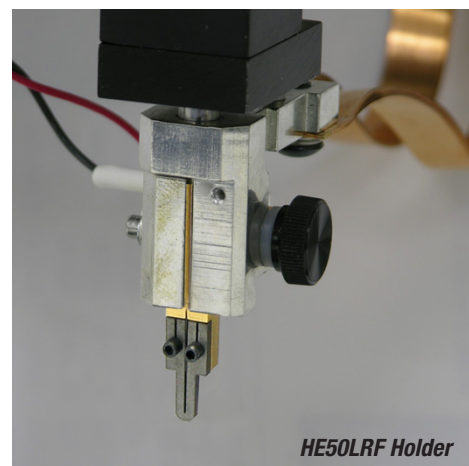
*0.002" diameter magnet wire to gold pad*



*0.005" diameter magnet wire to gold pad*



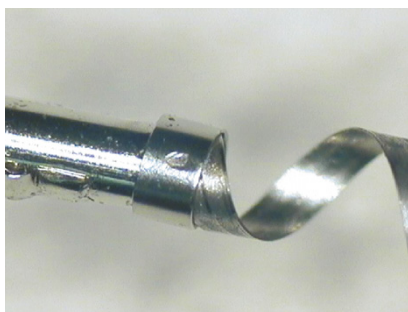
*HE50RF Holder*



*HE50LRF Holder*

## MODEL 50F OR 50A/24 OPPOSED

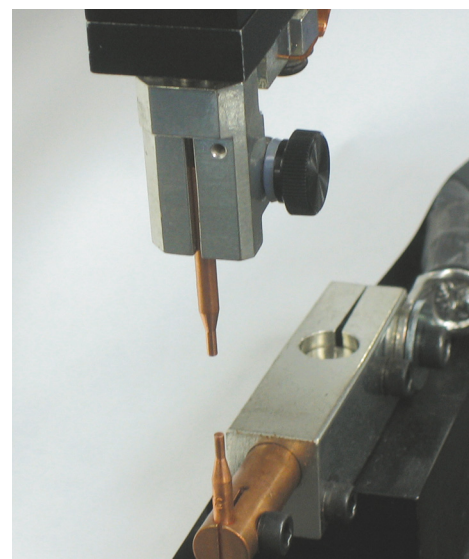
- Light force opposed configuration enables the welding of a wide range of both conductive and resistive materials
- Uses standard ES0400 series electrodes



*0.002" thick platinum strip to platinum tube*



*0.01" diameter tungsten cross wire weld*



*HE50 with HE1200S Lower Electrode Holder*

## SPECIFICATIONS (ALL MODELS)

<b>Stroke</b>	.75 Inch (1.9 cm)
<b>Throat Depth</b>	4.66 Inches (11.8 cm)
<b>Power Rating</b>	125 watt-seconds or 2 KVA at 8% duty cycle

Model	Electrode Holder	Electrode Type	Force Range (gmf)	Force Range (Newtons)	Actuation	Application
<b>50F</b>	HE50	Unitip	40-1000	.39-9.8	Foot	Welding
<b>50F Opposed</b>	HE50	1/8" Diameter	40-1000	.39-9.8	Foot	Welding
<b>50A</b>	HE50	Unitip	40-1000	.39-9.8	Air, 115 VAC	Welding
<b>50A/24</b>	HE50	Unitip	40-1000	.39-9.8	Air, 24 VAC	Welding
<b>50F/UB</b>	HE50UB	Unibond	125-1000	1.22-9.8	Foot	Welding
<b>50A/UB</b>	HE50UB	Unibond	125-1000	1.22-9.8	Air, 115 VAC	Welding
<b>50A/UB/24</b>	HE50UB	Unibond	125-1000	1.22-9.8	Air, 24 VAC	Welding
<b>50F/RF</b>	HE50RF	Thermode	125-1000	1.22-9.8	Foot	Reflow Soldering
<b>50A/RF</b>	HE50RF	Thermode	125-1000	1.22-9.8	Air, 115 VAC	Reflow Soldering
<b>50A/RF/24</b>	HE50RF	Thermode	125-1000	1.22-9.8	Air, 24 VAC	Reflow Soldering
<b>50F/LRF</b>	HE50LRF	Thermode	40-1000	.39-9.8	Foot	Thermocompression Bonding
<b>50A/LRF</b>	HE50LRF	Thermode	40-1000	.39-9.8	Air, 115 VAC	Thermocompression Bonding
<b>50A/LRF/24</b>	HE50LRF	Thermode	40-1000	.39-9.8	Air, 24 VAC	Thermocompression Bonding

All 50 heads come with baseplate and optical mount assembly. Manual 50F models include CP footpedal, 50A EZair models require either FS1L or FS2L foot switch.

## MICROSCOPE ACCESSORIES

BLFOI fiber optic illuminator system, PN 10-276-01
Nikon microscope, PN 10-376-01

## MAGNIFICATION AND WORKING DISTANCE OPTIONS

Eyepiece Lenses	Auxiliary Lenses				
	0.5	0.7	1	1.5	2
<b>10X</b>	4.0-25.0X	5.6-35.0X	8.0-50.0X	12.0- 75.0X	16.0-100.0X
<b>15X</b>	6.0-37.5X	8.4-52.5X	12.0-75.0X	18.0-112.5X	24.0-150.0X
<b>20X</b>	8.0-50.0X	11.2-70.0X	16.0-100.0X	24.0-150.0X	32.0-200.0X
<b>30X</b>	12.0-75.0X	16.8-105.0X	24.0-150.0X	36.0-225.0X	48.0-300.0X
<b>Focal length (working distance)</b>	8.3"	5.9"	4.5"	2.4"	1.7"



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