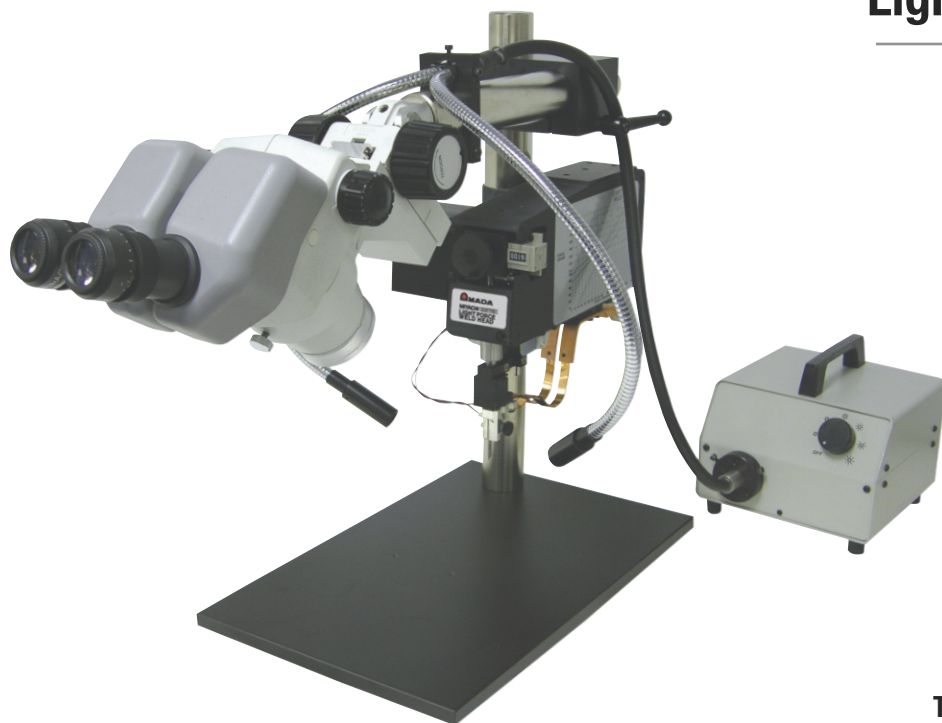


50 Series

Light Force Weld Heads



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

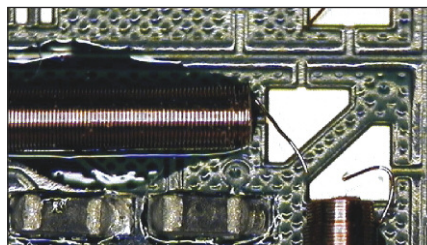
KEY FEATURES

- 40 – 1000 gf designed to join fine wires and ribbons between 0.0003 in – 0.01 in thickness
- Numeric force adjustment set with 3-digit numeric counter
- No deflection through stroke ensures consistent electrode contact and avoids welding blowouts or inconsistencies
- Configurable design accommodates a wide variety of applications
- Manual foot or air actuation
- May be fitted with an optional microscope for manual parts positioning

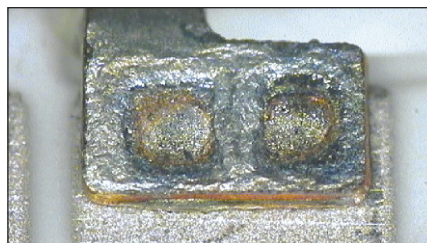
TYPICAL APPLICATIONS



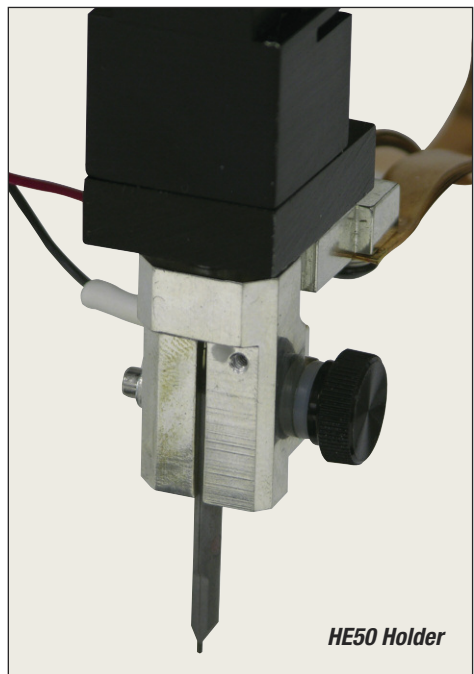
Wire to chip



Fine magnet wire

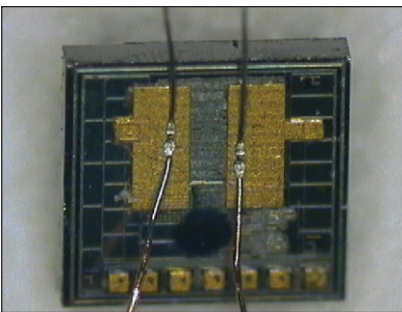


Reflow contact to pad

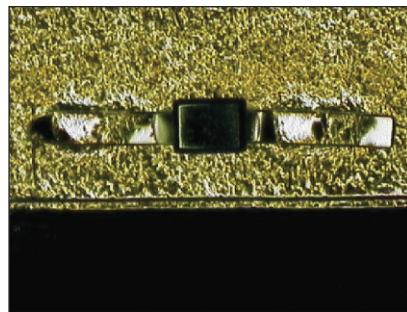


MODEL 50F OR 50A/24 ELECTRODE HOLDER WITH UNITIP ELECTRODE

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



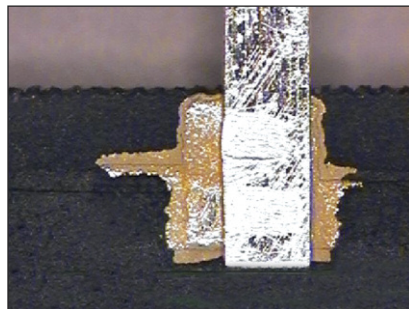
0.001 in gold coated copper wire to gold pad



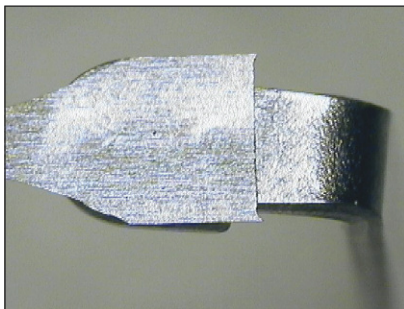
0.005 in gold ribbon to gold pad

MODEL 50UB ELECTRODE HOLDER WITH UNIBOND ELECTRODES

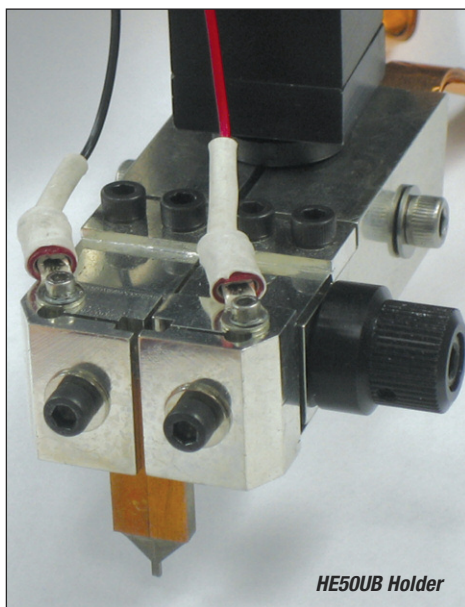
- Single-sided parallel gap welding (adjustable gap)
- Electrode footprint size promotes electrode lifetime
- Ribbon and wire thickness from 0.0005 in to 0.005 in
- UTA adapter available for Unitips
- Welds both resistive and conductive materials



0.005 in silver tab to metalized pad

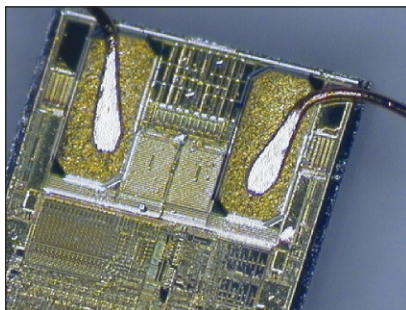


0.002 in nickel strip to block

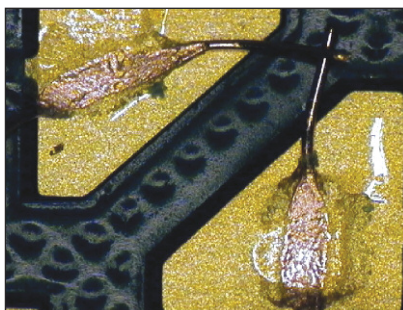


MODEL 50RF – 17BM STYLE BLADE THERMODE MODEL 50LRF – 17P STYLE THERMODE

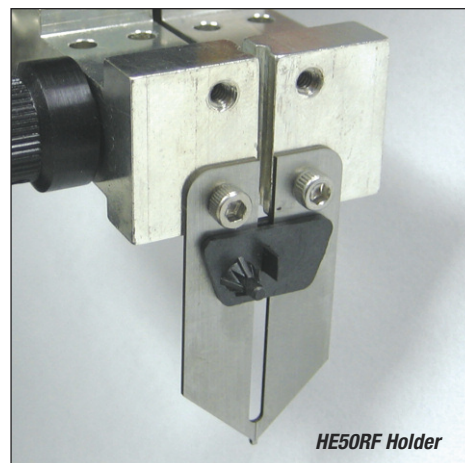
- Blade or single point thermode heating element according to part accessibility



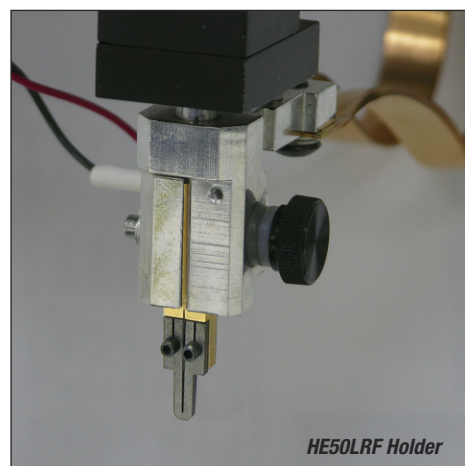
0.002 in diameter magnet wire to gold pad



0.005 in diameter magnet wire to gold pad



HE50RF Holder



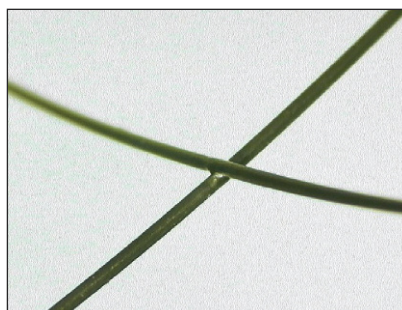
HE50LRF Holder

MODEL 50F OR 50A/24 OPPOSED

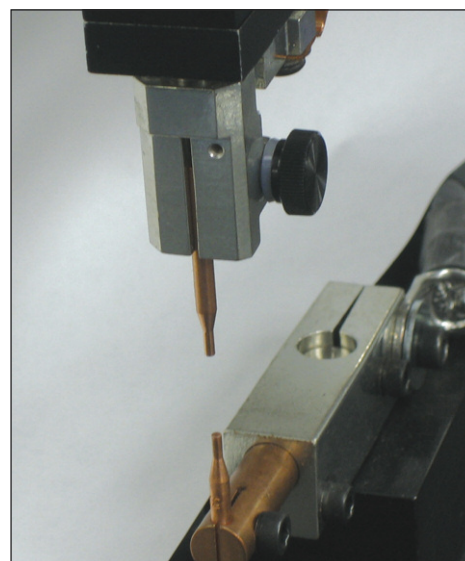
- Light force opposed configuration enables the welding of a wide range of both conductive and resistive materials
- Uses standard ES0400 series electrodes



0.002 in thick platinum strip to platinum tube



0.01 in diameter tungsten cross wire weld



HE50 with HE1200S lower electrode holder

TECHNICAL SPECIFICATIONS

Stroke	.75 in (1.9 cm)
Throat depth	4.66 in (11.8 cm)
Power rating	125 watt-seconds or 2 KVA at 8% duty cycle

Model (all models)	Electrode holder	Electrode type	Force range (gmf)	Force range (Newtons)	Actuation	Application
50F	HE50	Unitip	40 - 1000	.39 - 9.8	Foot	Welding
50F opposed	HE50	1/8 in diameter	40 - 1000	.39 - 9.8	Foot	Welding
50A	HE50	Unitip	40 - 1000	.39 - 9.8	Air, 115 VAC	Welding
50A/24	HE50	Unitip	40 - 1000	.39 - 9.8	Air, 24 VAC	Welding
50F/UB	HE50UB	Unibond	125 - 1000	1.22 - 9.8	Foot	Welding
50A/UB	HE50UB	Unibond	125 - 1000	1.22 - 9.8	Air, 115 VAC	Welding
50A/UB/24	HE50UB	Unibond	125 - 1000	1.22 - 9.8	Air, 24 VAC	Welding
50F/RF	HE50RF	Thermode	125 - 1000	1.22 - 9.8	Foot	Reflow Soldering
50A/RF	HE50RF	Thermode	125 - 1000	1.22 - 9.8	Air, 115 VAC	Reflow Soldering
50A/RF/24	HE50RF	Thermode	125 - 1000	1.22 - 9.8	Air, 24 VAC	Reflow Soldering
50F/LRF	HE50LRF	Thermode	40 - 1000	.39 - 9.8	Foot	Thermocompression Bonding
50A/LRF	HE50LRF	Thermode	40 - 1000	.39 - 9.8	Air, 115 VAC	Thermocompression Bonding
50A/LRF/24	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 foot pedal, 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
10X	4.0 - 25.0X	5.6 - 35.0X	8.0 - 50.0X	12.0 - 75.0X	16.0 - 100.0X
15X	6.0 - 37.5X	8.4 - 52.5X	12.0 - 75.0X	18.0 - 112.5X	24.0 - 150.0X
20X	8.0 - 50.0X	11.2 - 70.0X	16.0 - 100.0X	24.0 - 150.0X	32.0 - 200.0X
30X	12.0 - 75.0X	16.8 - 105.0X	24.0 - 150.0X	36.0 - 225.0X	48.0 - 300.0X
Focal length (working distance)	8.3 in (21.1 cm)	5.9 in (15 cm)	4.5 in (11.4 cm)	2.4 in (6.1 cm)	1.7 in (4.3 cm)

WEIGHT & DIMENSIONS

	Without microscope	With optional microscope
Dimensions (L x W x H)	17.5 in x 10 in x 16 in (444.5 mm x 254.0 mm x 406.4 mm)	23 in x 10 in x 16 in (584.2 mm x 254.0 mm x 406.4 mm)
Weight	6 lb (2.7 kg)	25 lb (11.4 kg)



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