resistance welding Accessories

Accessories are an important part of any welding system. For your convenience Miyachi Unitek Corporation provides:

For assistance in selecting accessories or for accessories not included in this data sheet, contact your local Miyachi Unitek Corporation sales representative or telephone our customer service department at (626) 303-5676.

Model THP Tweezer Handpiece

- Includes 1 Pair ET0402 Electrodes

Model PHP Probe Handpiece

- Includes 1 Pair EP0402 Electrodes for Handpiece and 1 Pair EP0802 for Probe

Model HFP High Force Probe

- Includes 1 Pair EP0802 Electrodes

Model GHP Gun Handpiece

- Includes 1 Pair EP0802 Electrodes, Straight Extension and 30° Elbow Adapter

Handpieces

Welding handpieces should be used only when it is impractical to use a welding head. The Model THP tweezer, and PHP probe handpiece are used to weld small parts which require less than 125 watt-seconds or 1/2 cycle A.C., and welding forces which are less than 7 pounds. The Model HFP High Force Probe is used for applications which require higher energy and/or force. All three models are force fired to ensure repeatability. The Model GHP Gun Handpiece is switch fired which means that its application is limited to welding materials which are easy to weld, such as stainless steel or nickel. Handpieces are available with standard or 10-foot long cables. As a general rule, the energy delivered to the workpiece with 10-foot #6 cables will be approximately 15% of that delivered with 4-foot #6 cables. Handpieces are furnished with cables, as indicated in the following table, and one pair of RWMA electrodes.

The Model MTH Micro Tweezer is a tweezer which is fitted with non-replaceable Copper-Tungsten Electrodes. A Model FS Footswitch is required to trigger the power source.

Model MTH Micro Tweezer Handpiece

- Permanently fitted silver soldered RWMA 11 electrodes.
- Requires Model FS Footswitch to trigger stored energy power supplies.

Model FS Footswitch

- For use with Model MTH, above.

Rating	MTH	THP	PHP	HFP	GHP
DC (watt seconds)	20	125	125	500	125
AC (KVA-1/2 cycle)	–	2	2	7.5	2
Force Range lbs. – Max (Min)	3	7 (1.0)	7 (1.0)	25 (3)	N/A
Cable Size (AWG)	#14	#6	#6	#2	#6
Cable Length (ft.)	3	4	4	5	4
Electrode Series	RWMA 11	ET0400 or EP0400	EP0400 and EP0800	EP0800	EP0800

Specify "/10" suffix with model number for 10 foot long cables, e.g. HFP/10.

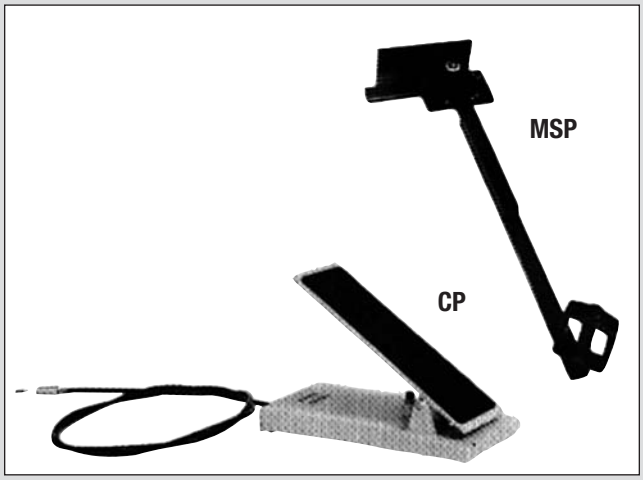
Spirit of Innovation™

MIYACHI UNITEK™

Footpedals

The Model CP cable pedal pivots under the heel for optimum force control. It is equipped with an adjustable down-stop which prevents the application of excess force. It is rated at 25 pounds, and can be used with the 50F, 80F, 86F, or 87F Thin-Line™ weld heads.

The Model MSP medium force swing pedal is fully adjustable for length, stroke, angle and left or right-foot operation. It provides a 5-to-1 mechanical advantage and is rated at 100 pounds. It is used with 83F, 84F, 88F, 89F, and 180F Thin-Line weld heads.



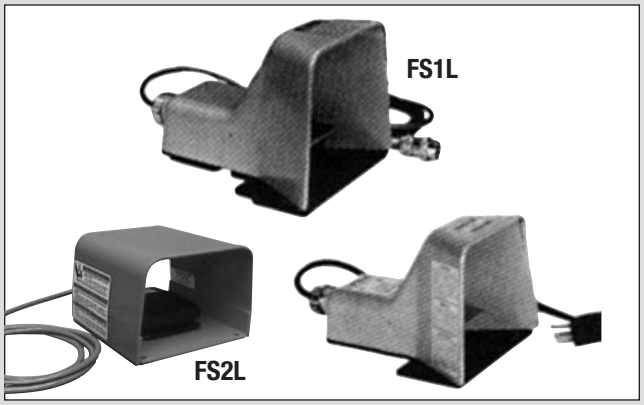
Footswitches for Air Actuated Heads

The Model FS2L two-level footswitch can be used with all Miyachi Unitek power supplies.* The first level actuates the weld head via the air valve driver of the power supply. The second level, along with the force firing switch in the weld head, initiates the welding current.

The Model FS1L one-level footswitch can also be used with all Miyachi Unitek power supplies.* The single level switch actuates the weld head and initiates the welding current (when the firing switch closes).

The Model FSAC footswitch connects to a standard wall outlet and is used to actuate 115-volt weld heads.

**NOTE: Except Unibond 2 which utilizes manually actuated weld heads.*



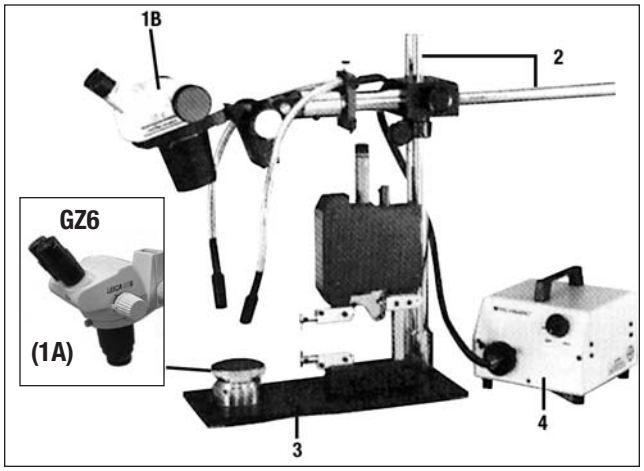
Optic Accessories

The Model GZ6 stereo zoom optic pod (1A) is supplied with 10X eyepieces and a variable auxiliary lens. It provides magnification which is adjustable from 2.0-16X. Its lightweight housing is designed to dissipate static charge, preventing electrostatic discharge (ESD) and reducing dust. It has a 7.9 to 13.8-inch (200 to 350 mm) continuously adjustable focal length and is compatible with any Model 50 or 80 Series Miyachi Unitek Corporation welding head.

The Model SZO stereo zoom optic pod (1B) is supplied with a 20X eyepiece and 0.32X object lens. It provides magnification which is adjustable from 4.4 to 19X. Its arm and porthole mounting assembly has been specially configured so that its 9-inch (230 mm) focal length is compatible with any Model 50 or 80 Series Miyachi Unitek Corporation welding head.

The Model OMA optic mounting assembly (2) provides the posts and hardware required to support the optic pod. The Model BPTL, Thin-Line base plate (3) is drilled to accept all 80 Series Thin-Line weld heads and the optic mounting assembly. The base plate is 6 inches wide x 14-7/8 inches deep x 1/4 inch thick (15.2 cm x 37.8 cm x 6.3 mm).

The BLFOI fiber optic illuminator system (4) transmits light through bifurcated, fiber optic light guides to produce cool, flicker-free, high-intensity light at the worksite. This system can be efficiently used with optical systems providing up to 30% magnification. The self-supporting, ambient temperature, gooseneck light guides can be placed at opposed angles in order to minimize shadows and reduce glare. The focusing lenses, at the end of the gooseneck, can be adjusted to provide either diffused or focused lighting. Light intensity can be quickly set to a maximum of 30,000 lumens/ft^2 (2780 lumens/M^2) using the continuously adjustable control on the front



panel. The mounting adapter block (included) allows the illuminator to be used with the OMA optic mounting assembly.

The light source housing can be operated horizontally or vertically. It has been designed to minimize light spill as well as provide easy access to the lamp compartment. The halogen lamp, whose life is typically 2000 hours, is mounted in a slide-out housing. A low noise, dynamically balanced, ball bearing fan minimizes external temperature, noise and vibration. The Model BLFOI operates at 115 volts, 50/60 Hz. Specify Model BLFOI/230 for operation at 230 volts, 50 Hz.

The height of the 3-inch (7.6 cm) diameter Model WP work positioner (5) is adjustable from 1-7/16 to 2 inches (3.7 to 5.1 cm). The WP is frequently used with the Model 86 parallel gap weld head to support small parts.

Electrode/Material Selection guide

The following material combinations have been welded together successfully for at least one combination of thicknesses. This list is not complete, but includes most of the common combinations. The number which follows each material is the RWMA (Resistance Welding Manufacturers' Association) number of the electrode which would normally be placed against that material.

Material	Elecastrode RWMA Type	Material	Electrode RWMA Type
Alumel	-2	Alumel	-2
		Chromel	-2
		Dumet	-2
Aluminum	-1	Aluminum	-1
		Aluminum Alloys	-1
		Cadmium Plating	-1
		Tinned Brass	-14
		Tinned Copper	-14
		Gold Plated	
		Dumet	-2
		Gold Plated Kovar	-2
		Kovar	-2
		Magnesium	-1
		C.R. Steel	-2
		Stainless Steel	-2
Beryllium Copper	-2	Beryllium Copper	-2
		Brass	-2
		Copper	-14
		Tinned Copper	-14
		Nickel	-2
		C.R. Steel	-2
		Stainless Steel	-2
Brass	-2, -11	Brass	-2, -11
		Tinned Brass	-14
		Bronze	-2
		Consil	-11
		Constantan	-2
		Copper	-14
		Tinned Copper	-14
		Dumet	-2
		Nichrome	-2
		Nickel	-2
		NiSpan C	-2
		Paliney 7	-2
		Silver	-11
		C.R. Steel	-2
		Stainless Steel	-2
Bronze	-2	Bronze	-2
		Tinned Copper	-14
		Iron	-2
		Nichrome	-2
		Nickel	-2
Chromel	-2	Chromel	-2
		Constantan	-2
		Copel	-2
		Copper	-14
		Tinned Copper	-14
		Dumet	-2
		Nichrome	-2
		C.R. Steel	-2

Material	Electrode RWMA Type	Material	Electrode RWMA Type
Consil	-11	Consil	-11
		Tinned Copper	-14
		Dumet	-2
Constantan	-2	Constantan	-2
		Copper	-14
		Tinned Copper	-14
		Iron	-2
		Nichrome	-2
		Nickel	-2
Copel	-2	Copel	-2
Copper	-14	Copper	-14
		Dumet	-2
		Invar	-14
		Karma	-2
		Manganin	-2
		Nichrome	-2
		Nickel	-2
		Paliney 7	-2
		Silver	-11
		C.R. Steel	-2
		Stainless Steel	-2
Dumet	-2	Dumet	-2
		Nichrome	-2
		Nickel	-2
		Platinum	-2
		C.R. Steel	-2
Evenohm	-14	Copper	-14
Gold	-11	Gold	-11
		Kovar	-2
Hastalloy	-2	Titanium	-2
Inconel	-2	Inconel	-2
		Kulgrid	-2
Invar	-2	Invar	-2
Iridium	-2	Iridium	-2
		Platinum	-2
Iron	-2	Iron	-2
Karma	-2	Karma	-2
		Nickel	-2
		Platinum	-2
Kovar, Gold Plated	-2	Gold Plated Kovar	-2
		Kulgrid	-2
		Nickel	-2
		Silver	-11
		Stainless Steel	-2
Magnesium	-1	Magnesium	-1

Material	Electrode RWMA Type	Material	Electrode RWMA Type
Molybdenum	-2	Molybdenum	-2
		Nickel	-2
		Tungsten	-2
Nichrome	-2	Nichrome	-2
		Nickel	-2
		C.R. Steel	-2
		Stainless Steel	-2
Nickel	-2	Nickel	-2
		C.R. Steel	-2
		Stainless Steel	-2
		Tantalum	-2
		Tungsten	-2
Nickel Alloy	-2	Tinned Brass	-14
		Beryllium Copper	-2
		Consil	-11
		Tinned Copper	-14
		Nichrome	-2
		Nickel	-2
		C.R. Steel	-2
NiSpan C	-2	NiSpan C	-2
		C.R. Steel	-2
		Stainless Steel	-2
Niobium	-2	Niobium	-2
Platinum	-2	Platinum	-2
Paliney 7	-2	Paliney 7	-2
Silver	-11	Silver	-11
		Cadmium	-13
		C.R. Steel	-2
		Stainless Steel	-2
		Palladium	-14
Cold Rolled Steel	-2	C.R. Steel	-2
		Stainless Steel	-2
		Tantalum	-2
Stainless Steel	-2	Stainless Steel	-2
		Tungsten	-2
Tantalum	-2	Tantalum	-2
Titanium	-2	Titanium	-2
Tungsten	-2	Tungsten	-2
		Rhenium	-2
Zinc	-14	Zinc	-14

Electrode Force Gauges

Electrode force gauges are used to establish weld schedules and to calibrate weld heads and handpieces. They are color coded to indicate the usable force range. The accuracy is ±2% of full scale.

Model	Capacity	Resolution	Color
FG20	20 lbs.	0.2 lb.	Gold
FG10Kg	10 Kg.	0.1 Kg.	Gold
FG100	100 lbs.	1 lb.	Green
FG200	200 lbs.	2 lbs.	Red
FG100Kg	100 Kg.	0.2 Kg.	Red

Electrodes

Highly conductive materials usually require electrodes of high resistance. Similarly, hard materials require softer copper-based electrodes. When welding dissimilar materials such as copper and nickel, the normal choice would be a molybdenum electrode against the copper and a GLIDCOP electrode against the nickel.

If stored energy or half-cycle equipment is used to weld dissimilar materials, place the more resistive material against the negative electrode. Likewise, if similar materials with thickness ratios greater than 4:1 are welded, place the thinner material against the negative electrode.

If repeatable, reliable welds are desired, electrodes should be dressed with 600 grit silicon carbide paper, rather than with a file. Refer to page 6 for Miyachi Unitek Corporation 600 grit polishing disks.

Electrode Materials

RWMA 2 - COPPER CHROMIUM ALLOY - 83B Rockwell hardness, 85% conductivity. Used for welding steels, nickel alloys and other high resistance materials.

GLIDCOP - DISPERSION STRENGTHENED COPPER with 0.15% ALUMINUM OXIDE - 68B Rockwell hardness, 92% conductivity. Longer life, greater thermal stability, higher strength than RWMA 2. Generally interchangeable with RWMA 2 without changing schedules. All Miyachi Unitek Corporation weld heads are supplied with GLIDCOP electrodes.

RWMA 3 - COPPER COBALT BERYLLIUM ALLOY - 100B Rockwell hardness, 48% conductivity. Used for welding high resistance materials requiring high weld forces.

Example of ordering code -ES0802

ES | **08** | **02**

Series - Straight Electrode | Material - RWMA 2

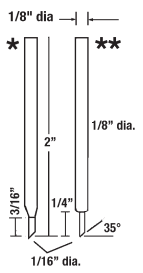
Diameter in 1/32 inch - 08 = 8/32 = 1/4 inch

1/8 Inch Electrodes

EO0400 - 1/8” dia. OFFSET ELECTRODES
Used with 80 Series weld heads

Model	Material
E00402	RWMA 2
E00403	RWMA 3
E00411	RWMA 11 Insert
E00413	RWMA 13 Insert
E00420	Moly Insert

* Copper Alloy
** Refractory Alloy Insert



EO0400 Series Electrodes

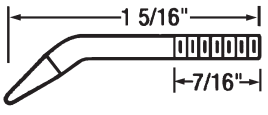
RWMA 11 - COPPER TUNGSTEN ALLOY 99B Rockwell hardness, 46% conductivity. Usually inserted into an RWMA 2 shank. Used for welding cuprous and precious metals. Used for light projection welding dies.

RWMA 13 - TUNGSTEN - 70A Rockwell hardness, 32% conductivity. Usually inserted into an RWMA 2 shank. Cannot be machined but may be ground to the desired shape. Used to weld non-ferrous metals such as copper and brass.

RWMA 14 MOLYBDENUM - 90B Rockwell hardness, 31% conductivity. Usually inserted into an RWMA 2 shank. Machineable. Used for welding copper, silver, gold and their alloys.

EP0400 - 1/8” dia. PROBE ELECTRODES 6-32 NC2 thread
Used with THP and PHP handpieces

Model	Material
EP0402	RWMA 2
EP0403	RWMA 3
EP0450	GLIDCOP

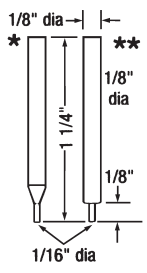


EP0400 Series Electrodes

ES0400 - 1/8” dia. STRAIGHT ELECTRODES
Used with 80, 82 weld heads

Model	Material
ES0402	RWMA 2
ES0403	RWMA 3
ES0450	GLIDCOP
ES0411	RWMA 11 Insert
ES0413	RWMA 13 Insert
ES0420	Moly Insert

* Copper Alloy
** Refractory Alloy Insert

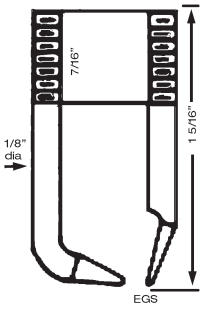


ES0400 Series Electrodes

ESG0402 - 1/8" dia. STRAIN GAUGE ELECTRODES Used with THP

Model	Material
ESG00402	RWMA 2

ESG0400 Series Electrodes For Strain Gauges

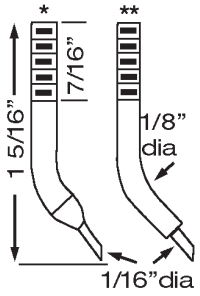


6-32 NC2 Thread

ET0400 - 1/8" dia. TWEEZER ELECTRODES Used with THP AND PHP

Model	Material
ET0402	RWMA 2
ET0403	RWMA 3
ET0411	RWMA 11 Insert
ET0413	RWMA 13 Insert
ET0420	Moly Insert
ET0450	GLIDCOP

* Copper Alloy
** Refractory Alloy Insert



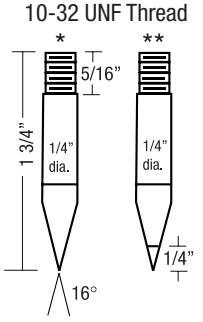
ET0400 Series Electrodes

1/4 Inch Electrodes

EP0800 - 1/4" dia. PROBE ELECTRODES Used with GHP AND HFP handpieces

Model	Material
EP0802	RWMA 2
EP0803	RWMA 3
EP0811	RWMA 11 Insert
EP0820	Moly Insert

* Copper Alloy
** Refractory Alloy Insert

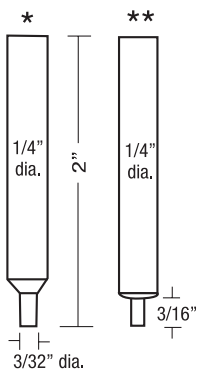


EP0800 Series Electrodes

ES0800 - 1/4" dia. STRAIGHT ELECTRODES Used with 82, 83, 84, 90 Series and 180 Series weld heads

Model	Material
ES0802	RWMA 2
ES0803	RWMA 3
ES0850	GLIDCOP
ES0811	RWMA 11 Insert
ES0813	RWMA 13 Insert
ES0820	Moly Insert
ES0820A	1/8" dia Moly Insert

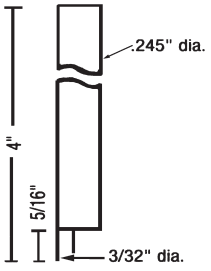
* Copper Alloy
** Refractory Alloy Insert



ES0800 Series Electrodes

ES0800E - .245" dia.
ECCENTRIC STRAIGHT ELECTRODES Used with 88, 89 and 188 weld heads and HE38V and HE88 holders

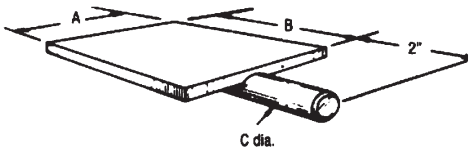
Model	Material
ES0802E	RWMA 2
ES0803E	RWMA 3
ES0850E	GLIDCOP
ES0820E	Moly Insert
ES0850ES	GLIDCOP (.062" Face)



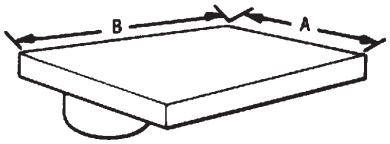
ES0800 Series Electrodes

Other Electrodes

ETB Table Electrodes – RWMA 2



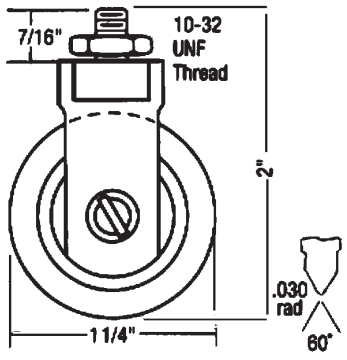
	A"	B"	C"	Used With
ETB2	2	1-3/4	3/8	80 Series
ETB3	3	3	5/8	90, 180 Series



	A"	B"	Used With
ETB4	3	3-3/4	80, 86

EW4002 1.25" WHEEL ELECTRODE RWMA2, Used with HW1090

HW1090 Holder with EW4002 Wheel

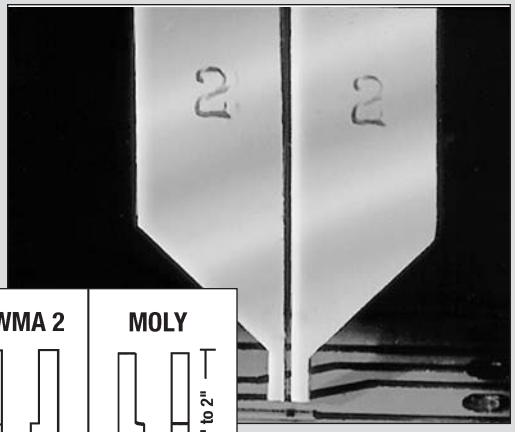


Electrode Rod (12" length)

Model	Material	Dia. (Inch)	Model	Material	Dia. (Inch)
ER0213	RWMA 13	1/16	*ER0450*	GLIDCOP	1/8
ER0220	MOLY	1/16	*ER0802*	RWMA 2	1/4
ER0402	RWMA 2	1/8	*ER0803*	RWMA 3	1/4
ER0403	RWMA 3	1/8	*ER0850*	GLIDCOP	1/4
ER0413	RWMA 13	1/8	*ER1202*	RWMA 2	3/8
ER0420	MOLY 1/8	1/8	*ER2002*	RWMA 2	5/8

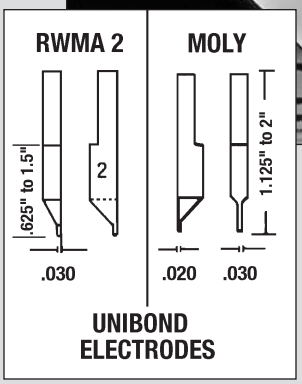
Unibond® Electrodes

Unibond electrodes are used for parallel gap bonding and reflow soldering. Generally, RWMA2 copper Unibond electrodes are used with resistive and/or hard materials such as gold plated kovar and nickel. Molybdenum Unibond electrodes are used for bonding conductive or soft materials such as copper or gold. The face of a Unibond electrode is 0.020 inches (0.5 mm) wide by 0.030 inches (0.75 mm) deep. In unfixtured applications, this limits their use to bonding ribbons (wire) which are at least 0.010 inches (0.25 mm) wide because of the limited visibility.



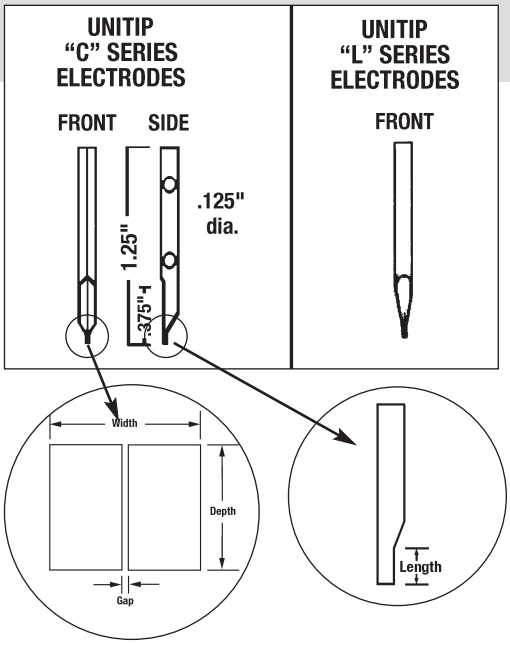
Unibond electrodes perform welded circuit board repair.

Model	Material	Length	FACE		
			Width	Depth	Length
EU1000	RWMA2	1.125”	.020	.030	.080
EU1002	RWMA2	2”	.020	.030	.080
EU2030M	Copper Clad Moly	1.125”	.020	.030	.080
EU2030ML	Moly	2”	.020	.030	.080
EU2537M	Moly	1.125”	.025	.037	.100
EU2030MR	Moly	1.125”	.020	.030	.080



Unitip® Electrodes

Unitips are electrodes for parallel gap bonding of gold plated kovar, copper, or gold ribbons (wires) which are smaller than 0.010 inches (0.25 mm). They are made from two pieces of molybdenum, which are permanently bonded to an insulating spacer. This fixed gap and bonded construction results in a tip which wears uniformly when properly dressed. The length of the Unitip and the flat area on the front allows it to bond ribbons extremely close to the walls of packages as deep as 0.450 inches (11.5 mm). The narrower Thinline “L” series Unitips have a tapered profile, enabling them to be used closer to the corners of packages.

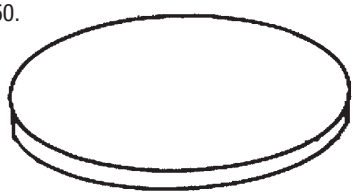


Model	FACE				Max. Force	Max. Force
	Width	Depth	Gap	Length	Oz.	Kgf.
UTM111L	.009	.010	.001	.025	33	.94
UTM112L	.010	.010	.002	.025	33	.94
UTM152L	.010	.005	.002	.025	17	.47
UTM222L	.018	.020	.002	.050	132	3.75
UTM237L	.020	.030	.007	.050	161	4.57
UTM111C	.009	.010	.001	.025	33	.94
UTM112C	.010	.010	.002	.025	33	.94
UTM222C	.018	.020	.002	.050	132	3.75
UTM224C	.020	.020	.004	.050	132	3.75
UTM224L	.020	.020	.004	.050	132	3.75
UTM112CS	.010	.010	.002	.015	33	.94
UTM112LS	.010	.010	.002	.015	33	.94

All dimensions in inches unless noted.
NOTE: Refer to Unitip & Unibond Electrodes Data Sheet 991-461.

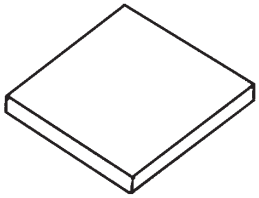
Polishing Disks

Model PD Polishing Disks, 600 grit silicon carbide, 1.5 inch diameter. Package of 50.



1 1/2” dia.
Polishing Disk

Model CPD Ceramic Polishing Disks, 1 inch square x .025 inch thick. Package of 20.



1” square
Ceramic
Polishing Disk

Cables, Terminals, Connectors and Adapters

Standard Connectors and Cables

Symbol	*Stock Number*	*Description*
A	700-120	#2 Terminal for 5/16" Bolt
B	700-137	#2/0 Terminal for 5/16" Bolt
C	700-138	#2/0 Tinned Terminal for 3/16" Bolt
D	700-134	#2 Terminal for 3/16" Bolt
E	700-140	#4/0 Tinned Terminal for 5/16" Bolt
F	550-006	Firing Switch Receptacle for Footswitch, 4 pin
G	520-009	Firing Switch Plug for Footswitch, 4 pin
H	4-02688-01	#2 Threaded Connector for HDT
J	700-141	#4 Tinned Terminal for 7/16" Bolt
K	700-008	#6 Terminal for 3/16" Bolt
P	550-001	Standard Firing Switch Receptacle-2 wire
S	520-001	Firing Switch Plug-2 wire
T	520-011	Firing Switch Jack-2 wire
V	700-121	#6 Terminal for 5/16 Inch Bolt
W	4-28071-02	#6 Female Connector
2U	205-134	#2 Ultra Flexible Cable used with A, D, H
2/0	205-103	#2/0 Welding Cable used with B
2	205-016	#2 Welding Cable used with D, H
6	205-076	#6 Welding Cable used with K, V, W, X
18V	205-005	#18 Firing Switch Cable used with S, T
4/ 0	205-114	#4/0 Cable used with E, J
24	4-28207-01	#24 Hi-Flex Firing Switch Cable used with S, T

Cable Ordering Guide

To order a cable, specify the cable diameter and connector or terminal for each end, then specify the length in inches. For example: 6KV10 where:

CABLE SIZE - 6= #6 AWG
FIRST CONNECTOR - K =#6 Terminal for 3/16" Bolt
SECOND CONNECTOR - V =#6 Terminal for 5/16" Bolt
LENGTH in inches - 10 =10 inches

Use "X" to indicate the end of any cable to be supplied without a connector.
Example: 6XV10 for a #6 Cable with just one connector.

Standard Cable Assemblies

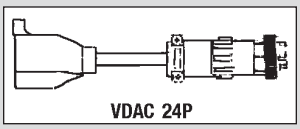
Listed below are the cables which are normally supplied with Miyachi Unitek welding heads and handpieces.

Welding Head/Handpiece	**Ordering Code**
50 Series Weld Cables	2DD11
50 Series with UWS	2DD24
80 Weld Cables	2AD11
86, 87 Weld Cables	2DD11
83, 84 Weld Cables	2/0BC11
88, 89/82 Weld Cables	2/0BB11
180/182/188 Weld Cables	2/0BB16
HFP Weld Cables	2AH60
HFT Weld Cables	2AH48
PHP/THP Weld Cables	6VW48
Firing Switch Extension-60 "	18VST60

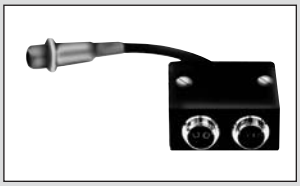
Adapter Cables

The Model VDAC24P 115 Volt Valve Driver Adapter Cable allows a NEMA 115-volt plug on an air actuated weld head to be connected to the standard Miyachi Unitek Corporation 24V/115V receptacle.

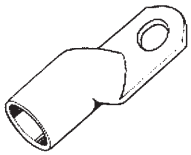
The Model DFS Firing Switch Junction Box allows the firing switch cables from two weld heads or handpieces to be connected to a single power supply.


VDAC 24P

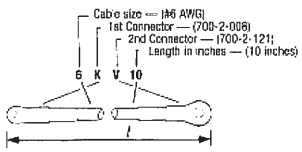
The Model DFS/88 firing Switch Junction Box allows the firing switch cables on the Model 88 and 188 weld heads to be connected in series. A DFS/88 is supplied with the Model 88 and 188.



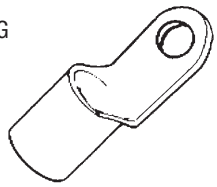
A
#2 AWG
700-120



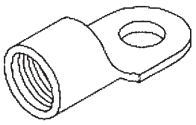
Example of Coding



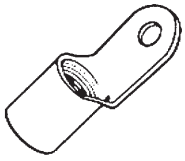
B
#2/0 AWG
700-137



J
#4/0 AWG
700-141

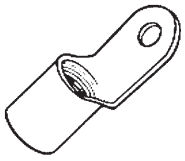


C
#2/0 AWG
700-138



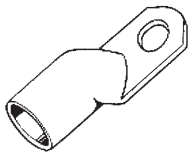
K
#6, #8 AWG
700-008

D
#2 AWG
700-134

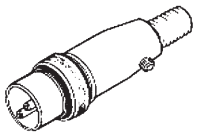


P
Standard
Panel Mount
Receptacle
#18 AWG
550-001

E
#2 AWG
700-140

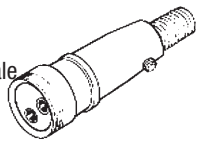


S
#18 AWG
Plug-Male
520-001

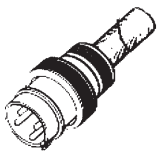


F
#18 AWG
4-PIN
Female Receptacle
for Footswitch
550-006

T
#18 AWG
Jack-Female
520-011



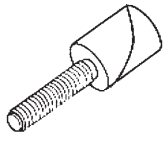
G
#18 AWG
4-PIN
Male Plug
for Footswitch
520-009



V
#6 AWG
(for 5/16" bolt)
700-121

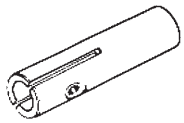
H
#2 AWG

(for HFP)
4-02688-01

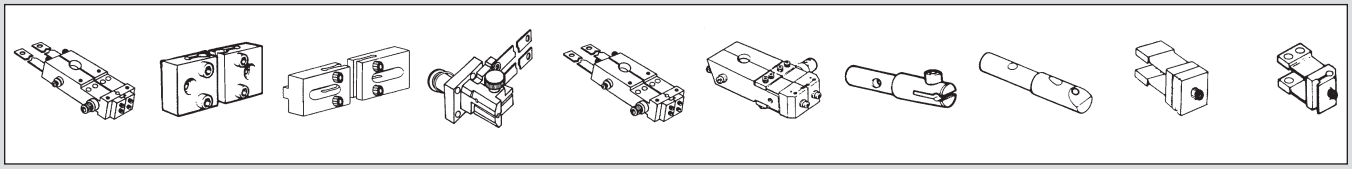


W
#6 AWG

4-28071-02



Electrode Holders and Adapters



HE87 HOLDERS, UNITIP/THERMODE for 87F and 87A.

HE88 ELECTRODE HOLDER Holder .245" dia. ES0800 Series Electrodes in 88 Weld Head. Set (2)

HE188 ELECTRODE HOLDER Holder .245" dia. ES0800E Series Electrodes in 188 Weld Head. Set (2)

HE50 HOLDERS, UNITIP for 50F and 50A Weld Heads.

HE50RF HOLDER, THERMODE, for 50F and 50A Weld Heads.

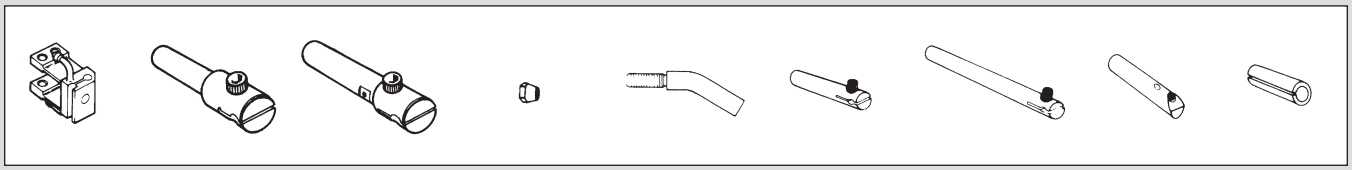
HE50UB FLEXURE SET Holds Unibond Electrodes and Unitip Adapter in 50 Weld Head.

HET0400 STANDARD ELECTRODE HOLDER Holders 1/8" dia. straight electrodes in HFT.

HET0435 35° OFF-SET ELECTRODE HOLDER Holds 1/8" dia. electrodes in HFT handpieces.

HE127SFRE ROUND ELECTRODE HOLDER SET Holds 1/8" dia. Electrodes in 86 Weld Heads. Set (2)

HE127SF STANDARD FIXTURE SET Holds Unibond electrodes in 86 Weld Head. Set (2)



HE127FWC WATER COOLED FIXTURE SET Holds Reflow Tips in 86 Weld Head. Set (2)

HE1208 ELECTRODE HOLDER, 3/8 dia. x 2 long. for 1/4 dia. electrodes.

HE1600 STANDARD ELECTRODE HOLDERS, for 84 Weld Heads, holds 1/4" Electrodes, 1/2" dia. x 2.312 Long.

ELN Nuts for THP and PHP Handpieces. Pkg. (15)

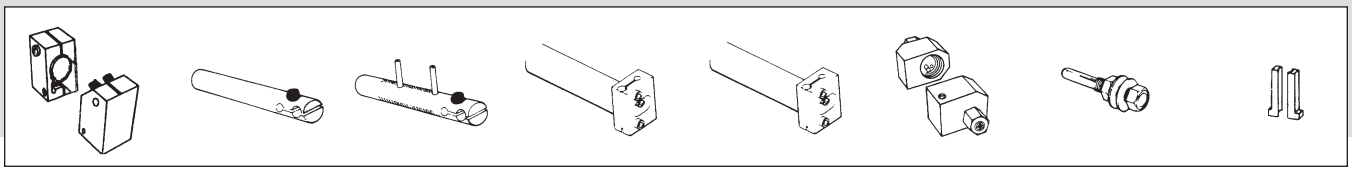
HE30GH 30° ANGLED ELECTRODE HOLDER Holders EP0800 Series Electrodes in GHP at 30° angle.

HE1200S STANDARD 2" ELECTRODE HOLDER Holds 1/8" dia. electrodes in 80 Weld Head.

HE1200L 3-1/2" ELECTRODE HOLDER Holds 1/8" dia. electrodes in 80 Weld Head.

HE0435 35° OFFSET ELECTRODE HOLDER Holds 1/8" dia. electrodes in 80 Weld Head.

HE08040 SLEEVE ADAPTER Adapts 3/8" electrode holder (for 1/8" electrodes) to 1 80 and 188 Weld Heads. Set (2)



HE90ABK OFFSET ELECTRODE HOLDER KIT, for 90F weld head. Increases throat depth. Rated: 100 lbs. includes adapter blocks, HE2000 holders, lower electrode shaft and 1 pr. ES0802 Electrodes

HE2000 ELECTRODE HOLDER Holds 1/4" electrodes in 38, 90 FDT and 180 Weld Heads.

HE2000WC WATER COOLED ELECTRODE HOLDER Holds 1/4" dia. and 1/8" dia. electrodes in 88, 180, 188 Weld Heads. Includes plastic tubing. Set (2)

HE38V ELECTRODE HOLDER Holds .245" dia. ES0800E Series electrodes in 188 and 38 Weld Heads. Set (2)

HE38V04 ELECTRODE HOLDERS, vertical, anti-rotation feature. For 38 Weld Heads. Holds 1/8" dia. ES0400 Series electrodes. used to weld battery tabs.

90RCK Replacement collet kit for 90 in-line Weld Head.

MTA ADAPTER Connects cables with eyelet connectors to "old style" Stored Energy Power Supplies. Set (2)

UTA UNITIP ADAPTER SET Adapts HE50UB and 86 Weld Heads to hold UNITIPS. Set (2)

Miyachi Unitek Corporation offers a broad range of precision resistance welding equipment, including Stored Energy (capacitor discharge), Direct Energy (AC), High Frequency Inverter (HFDC) and Constant Voltage/Power Unibond II for microjoining. All Miyachi Unitek power supplies offer the precision of digital control with the user friendliness of microprocessor control and digital switches, and many offer a built-in user's manual via help screens. Miyachi Unitek's Thin-Line series of weld heads work well with all Miyachi Unitek power supplies and provide force firing, low inertia and excellent follow-up. Thin-Line weld heads have provided consistently reliable service in automated and bench-top production environments. The Model 50 Light Force Head is designed expressly for very low force applications with Unitips.

Miyachi Unitek Corporation products built 25 years ago are still performing today in production facilities around the world. For assistance in selecting accessories and spare parts, contact your local Miyachi Unitek sales representative or telephone our Customer Service Department at (626) 303-5676 (U.S.A.)