

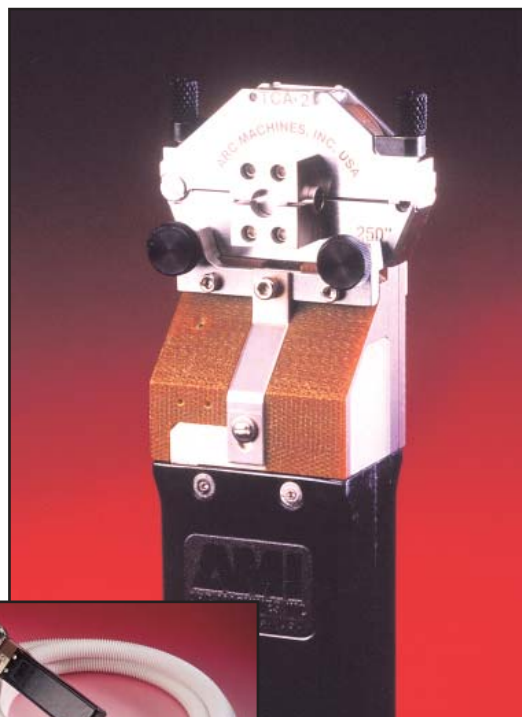


ARC MACHINES, INC. *The widest range of orbital welding equipment in the world*

MODELS 9-500 AND 9-500C MINI TUBE / FITTING WELD HEADS



*Model 9-500
Shown with Tube Clamp Assembly*



*Model 9-500C
Shown with Quick
Release Kit, TCA-2 and
Mini-Cube*



- Available as air-cooled for most applications, or water-cooled versions for high duty cycle applications.
- Extremely narrow design, 0.48" (12,2mm) wide. Allows welding of mini fittings and other short stick-out applications.
- 9-500 and 9-500C are the same size and share the same tooling.
- Accommodates tube/fitting sizes up to 1/2" (12,7mm) O.D.
- Compatible with all AMI power supplies

ARC MACHINES, INC.

AMI is an ISO 9001 Certified Company

www.arcmachines.com

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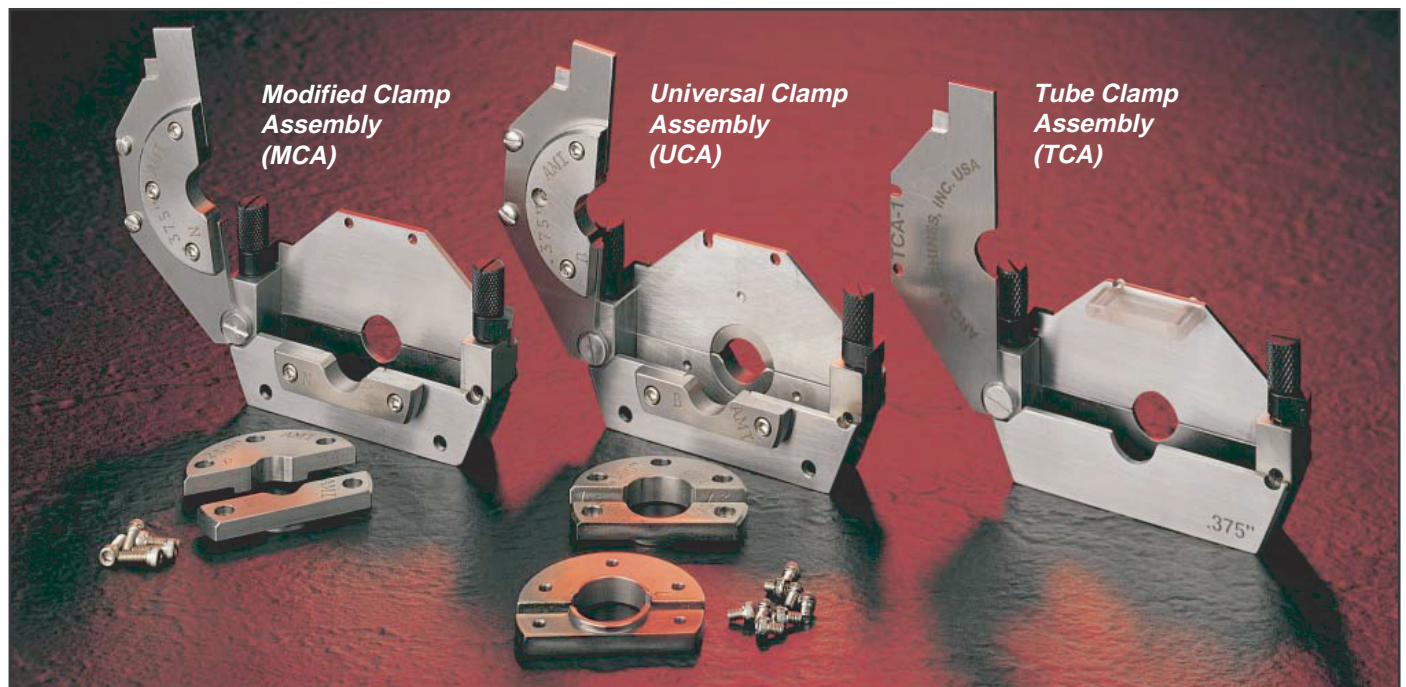
MODELS 9-500 AND 9-500C

The Models 9-500 and 9-500C are precision orbital GTAW (TIG) welding heads, designed for fusion butt welding of tubing, mini fittings, valves and other components having stick-outs as short as 0.25" (6,35mm). The Model 9-500 is air-cooled and the Model 9-500C is air or water-cooled. These heads have a capacity of up to 1/2" (12.7mm) O.D. The 9-500C is capable of higher duty cycle applications, and is provided with a Quick Release Kit. The Quick Release Kit (also available for the 9-500) allows remote loading of the clamp assemblies, providing an unobstructed, (360 degree) view of the weld joint, and facilitates the use of multiple clamp assemblies to further increase the duty cycle.

A wide variety of tooling is available (and interchangeable) for both of these heads. All tools include a visual sight window to verify fit-up prior to welding. Three types of clamp assemblies and two types of cassettes address most all applications. Additional support for tubing or other components, as well as automatic radial orientation of mini fittings is available through the use of a variety of clamp inserts, and mini cubes, which are attached to the clamp assemblies. Consult AMI or one of our factory representatives for tooling recommendations for your application.

These heads are plug compatible with AMI power supply Models 107, 207 and 207-HP. Adapter cables are available for use with other AMI power supplies.

TOOLING



Modified Clamp Assembly (MCA)

Used for mini fitting to tube or to other components having a stick-out of at least 0.385" (9,8mm). Provides automatic alignment of the mini fitting to the electrode. Requires a set of clamp inserts on one side.

Universal Clamp Assembly (UCA)

Used for tube to tube applications, or other components having at least 0.385" (8,8mm) stick-out. Requires a set of clamp inserts on each side.

Tube Clamp Assembly (TCA)

Used for fitting to fitting applications, or other applications, where the two components being joined have stick-outs as short as 0.25" (6,35mm). Provides automatic alignment of the mini fitting to the electrode. Note: Not recommended for components having stick-outs longer than 0.385" (9,8mm).

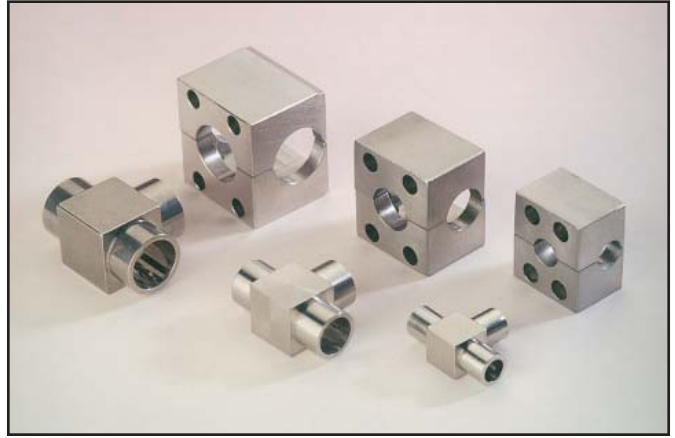
TOOLING



Tube Clamp and Fitting Clamp Inserts

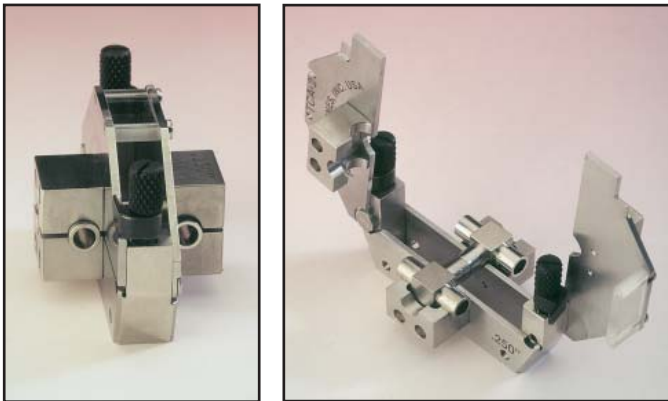
(TCI, FCI)

Used in conjunction with an MCA or UCA. TCI provides additional support for welding tubing or other components, having at least 0.385" (9,8mm) stick-out. FCI provides automatic alignment of ABW/ATW fittings.



Mini Cube

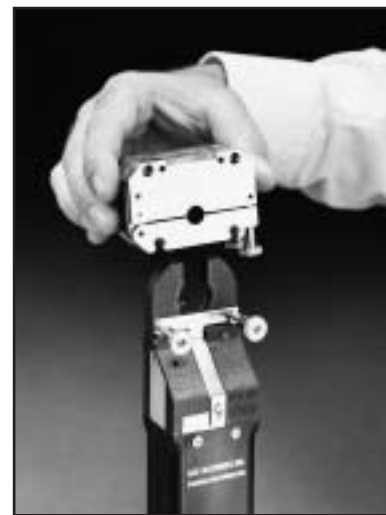
Provides automatic radial and axial positioning of mini tee and elbows. Can also be used to support components having a longer stick-out, such as tubing or glands. Available for optional use only on TCA-2 or MCA-2 clamp assemblies.



TCA-2 with Mini Cube on one side and adjustable Mini Cube on the other. Provides automatic radial positioning of mini fittings.

Adjustable Mini Cube

Provides automatic radial positioning of mini tees and elbows. Used in conjunction with the Mini Cube or FCI for fitting to fitting applications. Allows axial movement of the mini fitting to assure positive contact between two fittings. Can also be used to support components having a longer stick-out, such as tubing or glands. Available for optional use only on TCA-2 or MCA-2 clamp assemblies.

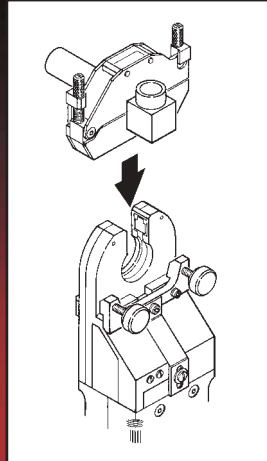


Tube to Tube and Tube to Fitting (heavy duty) Cassettes

These cassettes provide extremely rigid support for tube to tube or tube to mini fitting applications. They are designed to be remotely loaded, and unloaded, and are easily mounted and dismounted to and from the weld head. Typical applications include in-place welding vs. bench work, and the welding of relatively heavy components.

ADDITIONAL OPTIONAL ACCESSORIES

Quick Release Kit



Quick Release Kit

(Standard equipment on the Model 9-500C, optional on the 9-500) Allows rapid remote loading and/or unloading of the TCA, MCA or UCA from the weld head. This allows 360-degree visibility of fit-up prior to assembly onto the weld head. Facilitates the use of multiple clamp assemblies to increase duty cycle.

Remote Alignment Fixture



The Remote Alignment Fixture allows the remote loading (into the clamp assembly) of tubing or components that are not provided with a locating shoulder. It is designed with a dead-stop, providing automatic alignment of the tube or fitting to the electrode. This is especially important when increased duty-cycles are required. While one clamp assembly is being used on the weld head, a second clamp assembly may be remotely loaded using this fixture, then swapped with the clamp already on the weld head. The fixture may be hand-held or mounted on a bench. The Quick Release Kit (shown above) facilitates rapid removal and replacement of clamp assemblies, to and from the head.

Technical Data

| | | | |
|----------------|--------------------------------|-----------------|---------------------|
| Process: | GTAW (TIG) Autogenous | Electrode size: | 0.040" (1,0mm) |
| Tube/Fitting | | Cable length: | 9-500, 20 ft. (6m) |
| O.D. Capacity: | 3/32" to 1/2" (2,3mm - 12,7mm) | | 9-500C, 10 ft. (3m) |
| Travel motor: | Tachometer feedback, D.C. | Head Weight: | 1.75 lbs. (800g) |
| Electrode RPM: | 0.1 to 20.0 | | |

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