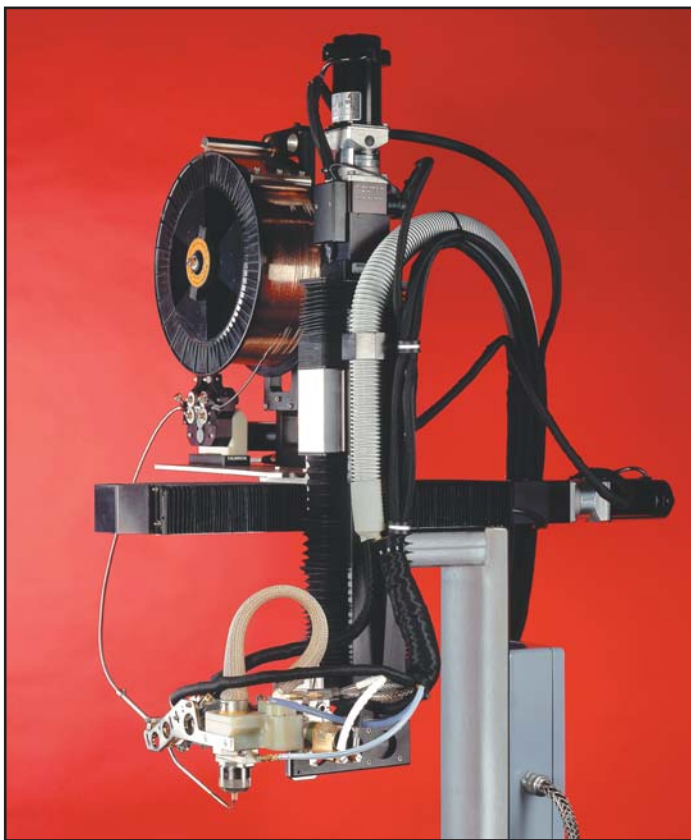


MODEL 2 MODULAR PRODUCTION WELDING SYSTEMS



The Arc Machines Model 2 is a series of specialized durable, high precision components that are custom-configured for a specific set of application requirements. The Model 2 is generally used in production applications where orbital welding may be impractical. The Model 2 “building block” approach uses a series of standardized motion stages for functions such as AVC (Arc Voltage Control), Torch Oscillation (weaving), onboard Wire Feeder and Travel. Up to eight motion axes of movement can be integrated into a welding system and controlled by the AMI Model 415 power supply, including positioners, side beams, welding lathes, seamers and rotators. The Model 2 series can also be equipped with a wide variety of general purpose and specialized welding torches including hot wire and remote arc viewing systems. Contact the AMI sales group for expert configuration assistance.

- Rugged production-worthy tool for beam or positioner mounting
- Modular design for easy customization for specific applications
- Heavy-duty components
- Multiple torch configurations available, such as:
 - Simple torch with arc length control (AVC) and wire feed
 - Torch with AVC and Oscillation, video vision system optional
 - Hot-Wire Torch with AVC and Oscillation, video vision optional
 - Narrow-gap torch with AVC, Oscillation and video vision system
- Controlled by Arc Machines’ Model 415, GTAW 400 amp DCSP, Power Supply/Controller with built-in digital data acquisition and multi-servo control capabilities

MODEL 2 MODULAR PRODUCTION WELDING SYSTEMS



AVC slides



Short or long reach torch mounts

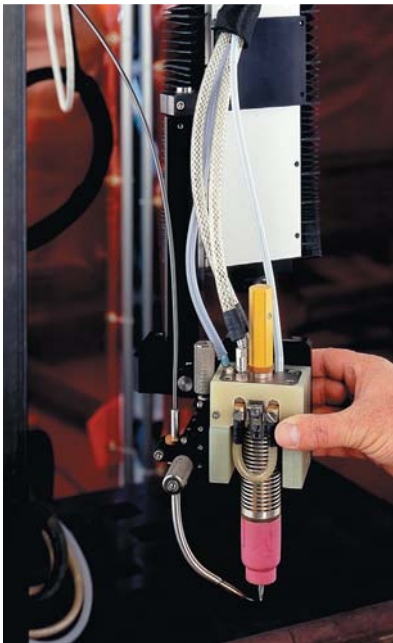


OSC/Travel/Positioning slides

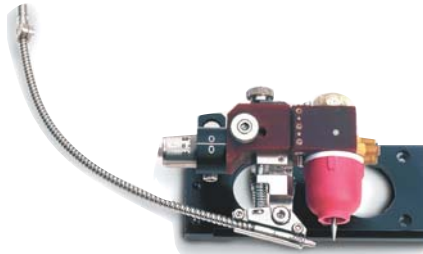


Short axial motor mounts

SLIDES

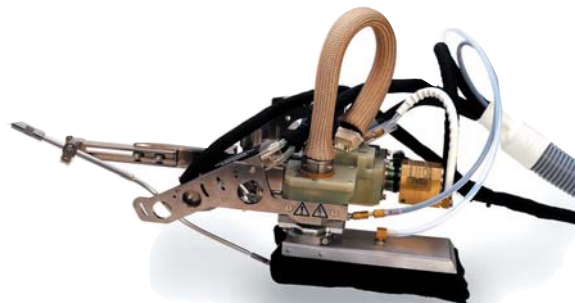


Hot or cold wire heavy-duty torches



Light to medium duty GTAW torches (Cold wire)

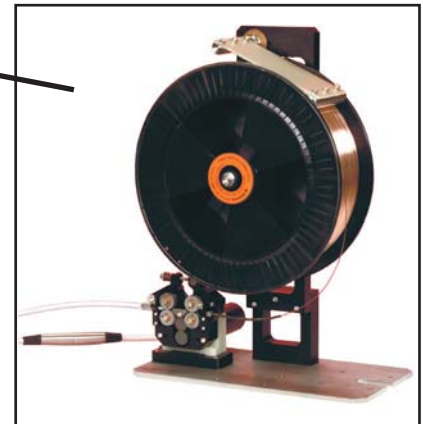
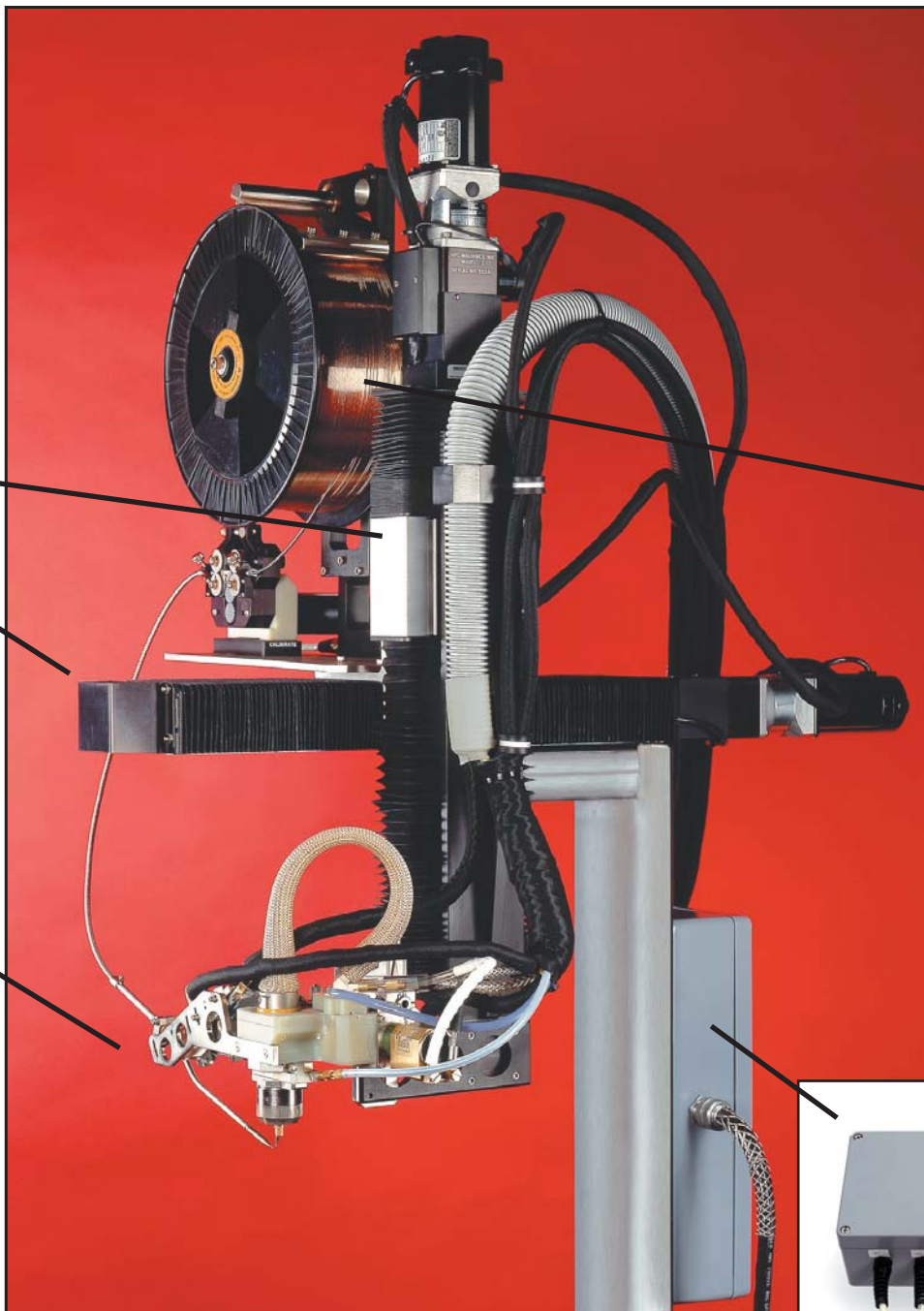
**GTAW (TIG)
TORCHES**



Narrow-gap GTAW torch with Trailing Shield and remote video

The Arc Machines' Model 2 was designed for factory applications requiring heavy-duty, in-place welding systems. Featuring precision ball-screw positioning slides, the Model 2 can be configured in many different ways. This unit is intended to mount on a positioner, a beam or a positioning carriage. Its most common application will be found in down-hand, high-quality welding applications using the GTAW (TIG) process, or as a replacement for some MIG applications. Many torch versions and Model 2 configurations are available from AMI.

Shown on the next page is a typical set-up for the Model 2, in this case featuring an Arc Machines' narrow-gap torch with rotation tungsten. The vertical slide positions the torch and serves as the arc-gap (AVC) mechanism. The horizontal slide is used (in this application) for positioning, but, with other torches, can also be used for oscillation. The slides shown are 12" (300mm) total-movement versions; they are available in many lengths in 2" increments.



Wire Feeder



Electrical Control Interface

While the most common Model 2 configuration is a vertical and a horizontal slide (as shown), other configurations are readily available. The Arc Machines' narrow-gap, hot-wire GTAW torch configuration is an example that can yield near MIG deposition rates with GTAW (TIG) weld quality. The available Arc Machines' patented vision system permits a clear view of the weld puddle and wire entry which can reduce or eliminate operator errors and fatigue, as well as providing visual Quality Control which can also be recorded on videotape.

Because of the flexibility and the modular design of the Model 2 and the many available torch assemblies, it is not possible to show all the possibilities in this brochure. We invite you to consult the AMI factory experts to discuss a solution to your requirements.

ARC MACHINES, INC.

MODEL 415 (400amp) PROGRAMMABLE MULTI-FUNCTION WELD POWER SUPPLY FOR THE MODEL 2



- Computer-controlled, built-in Windows™ operating system
- High-speed switching type, precision pulsed GTAW power supply
- Automatic configuration for AMI welding heads
- Easily adaptable to custom-designed and other weld heads and fixtures
- Complete operation and programming in English or user-defined languages
- Simple graphic display of all weld information and function values
- Standard full-function remote operator's pendant with patented "Heads-Up" Display
- Operation via touch-screen display or remote operator's pendant
- Built-in fault detection
- Current pulsation synchronized with oscillation, dwell, wire feed, travel or external inputs
- Up to eight optional multi-function programmable servos

ARC MACHINES, INC.

Specifications subject to change without notice.

Made in the U.S.A.

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