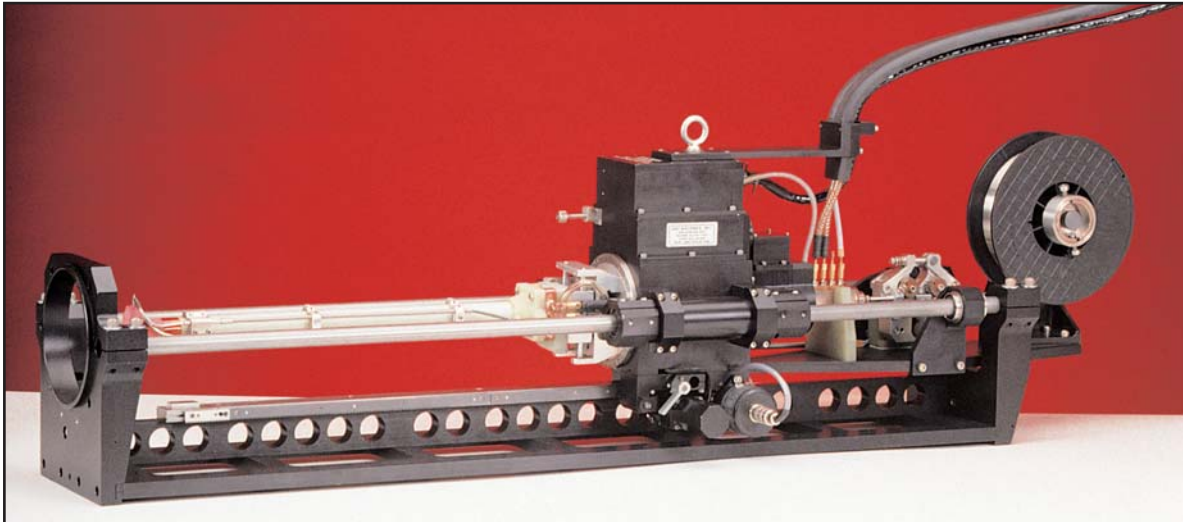


MODEL 94 I.D. SPIRAL CLADDING WELD HEAD



The Model 94 (M94) weld head is specifically designed for spiral cladding and groove welding on the inside (I.D.) of small diameter pipes, fittings and vessel inlet/outlets, using the GTAW (TIG) process with cold wire feed. The M94 is a rugged, stable, precise and repeatable platform for manipulating many different torches for welding and cladding operations. The M94 provides arc rotation, axial (linear) travel, filler wire feed and arc voltage control (AVC) for arc length control. Using the combination of axial travel and arc rotation, the M94 lays down a continuous spiral of uniform cladding in small diameter safe-end applications, vessel nozzles, and stud hole restorations.

- In-place I.D. cladding of nozzles
- Torches available for: 0.68" (17mm) post-weld I.D. to 6.75" (171mm) pre-weld I.D.
- Stainless steel rack-and-gear drive for consistent travel speeds in all positions (no friction drives)
- Manual travel clutch to allow rapid insertion and extraction of torch
- Unlimited torch rotation (no cable wrapping)
- Automatic arc voltage control
- Axial position readout
- Touch detect sensing allows presetting of arc gap for H.F. start
- Torches available for cladding or groove welding applications
- Continuous spiral cladding length (depending on application)

MODEL 94 I.D. SPIRAL CLADDING WELD HEAD

The Arc Machines' M94 is a rugged weld head for high production spiral I.D. cladding applications using the GTAW process. It is intended for small-diameter safe-end and vessel nozzle I.D. cladding and I.D. welding. The M94 lays down a continuous spiral of uniform cladding in small diameter safe-end applications, vessel nozzles, and stud hole restorations.

The M94 uses accessories to accurately position the weld head in axial alignment with the part to be clad. A manual travel clutch allows fast insertion and extraction of the torch and an axial readout gives precise torch location. The use of commutators in the M94 allows unlimited torch rotation. Cables are stationary. The M94 is self-supporting on the workpiece and can operate in any position.

Options include:

- Large Selection of Torches: The M94 is available with various standard and special torches to fit specific I.D. ranges, axial lengths and weld requirements.
- Axial Travel: Optional carriages with other than 24" (60 cm) travel are available. Contact AMI for details.
- Custom Torch Sizes: Consult AMI for more information

The Arc Machines Model 94 Offers:

- Servo-controlled rotation
- Servo-controlled AVC
- Servo-controlled wire feed
- Water-cooled torches
- Assortment of torches for different I.D. and axial requirements
- Pulsed current welding, and synchronized pulsed-wire feed
- Continuous spiral cladding capability
- Pre-set function for H.F. starts
- Compatible with Arc Machines' Model 215 or 415 Power Supplies



Technical Data

Process:	GTAW (TIG)	Tungsten Size:	3/32" or 1/8" (2,4 mm or 3,2 mm Ø)
Weld Current:	Torch specific	Filler Wire:	0.030" (0,8 mm Ø) recommended
Arc Voltage Control:	Automatic	Wire Spool:	8" or 4" diameter (200 or 100 mm Ø)
Wire Feed Speed:	5 to 100 IPM (13 to 250 cm/min.)	Axial Speed:	0.010 to 0.400 IPM (0,25 to 10,2 mm/min.)
Rotation Speed:	0.1 to 2.0 RPM	Weight:	93 lbs. (42 kg)

ARC MACHINES, INC.