

# Model 6

## SELF-SUPPORTING TUBE-TO-TUBESHEET GTAW (TIG) WELD HEAD



### INDUSTRY

- Nuclear
- Power Generation
- Shipyards
- Oil and Gas

## THE WIDEST RANGE OF ORBITAL WELDING EQUIPMENT IN THE WORLD

The Model 6 is a rugged, field-proven weld head for high-production welding of tube-to-tubesheet using the GTAW process. The Model 6 has exceptionally fast mount and dismount times for ease of operation and productivity. The torch is positioned on the tube to be welded by a pneumatically operated locating fixture. With the touch of a button, the locating fixture precisely locates itself over the tube to be welded.

### FEATURES

- Rugged, reliable tube-to-tubesheet weld head with 200 A torch
- Unlimited torch rotation
- Welds in any position, including overhead
- Can weld projected or recessed tubes with filler wire, or flush joints without filler wire
- Makes multiple-pass welds without stopping
- Air-operated fixtures speed up production
- Servo-controlled AVC, rotation and synchronized wire feed
- Water-cooled torches
- Adjustable torch tilt
- Automatically sets distance between electrode and tubesheet before arc initiation
- Non-linear vertical tungsten travel prevents tube-end burn-off
- Pulsed current welding and synchronized pulsed wire-feed

### TORCH OPTIONS

The "C" and "D" torches (for fillet welds) are spring loaded torches with a chill follower. The chill follower is located on the inside of the tube to be welded and contacts the tube wall exactly opposite the electrode, thus minimizing the possibility of burn-through on thin-wall tubes. The mechanics of the spring-loaded torch allows it to perfectly track the shape of the tube regardless of minor ovality. Gas chamber for welding titanium available.

- "C" torch - for fillet welding of projected tubes
- "D" torch - for fillet welding of projected tubes with minimum spacing between tubes
- "E" torch - for welding flush or recessed tubes



TUBE-TO-TUBESHEET WELD HEAD

Visit [arcmachines.com](http://arcmachines.com) for more information.

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## TUBE-TO-TUBESHEET WELD HEAD

QUICK SPECS	
Weld Current	200 A
Arc Voltage Control (AVC)	Automatic
Rotation Speed	0.1 - 10.0 RPM
Wire Feed Speed	5 - 100 IPM (13 - 254 cm/min.)
Tungsten Size	1/16" or 3/32" (1.6 mm or 2.4 mm ø)
Travel/Rotation Speed	0.1 - 9.9 RPM
Wire Manipulator (manual adj.)	Vertical, Horizontal and angular
Filler Wire	0.030" Recommended (0.8 mm ø)
Wire Spool	2 lbs, 4" Standard (1 kg, 100 mm)
Weight (less cables)	16 lbs. (7.3 kg)

\* Several torch options are available.

## COMPATIBLE AMI POWER SUPPLIES

The Model 6 is compatible with the following AMI Power Supplies:

**MODEL 317**  
VERSATILE WELDING  
POWER SUPPLY



**MODEL 415 WDR**  
PROGRAMMABLE HEAVY DUTY  
POWER SUPPLY



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