

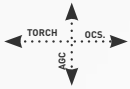


# T HEAD 419

## MAGNATECH

### TORCH OSCILLATION WEAVE

Width, speed, and endpoint "dwell" independently programmable. Torch "cross seam" steering electronically controlled using remote pendant. Pulsed current automatically synchronized with torch oscillation.



### FILLER WIRE SPOOL

Use standard 1 kg (2 lbs) spools.

### HEADMOUNTED WIRE FEEDER

Accommodates range of wire diameters.

### 3-AXIS POSITION ADJUSTMENT FOR FILLER WIRE NOZZLE

Multiple adjustments provide precise positioning of filler wire entry into weld puddle.

### WATERCOOLED TORCH

### WELD HEAD MOUNTING/ROTATION

Guide rings\* attach head to pipe.

\*Guide rings come with a one year warranty

## ORBITAL WELD HEAD FOR MULTIPASS GTAW PIPE WELDING

The Magnatech T model weld head is designed to make pipe-to-pipe and pipe-to-fitting welds. It is “full function” – with the capability of reproducing all the motions of a skilled manual welder. The T Head is used for larger diameter/heavy wall applications, requiring the precise weld process control of gas tungsten arc welding. Interchangeable guide rings provide mounting on the pipe, and allow the T Head to cover a broad size range. The T model weld head improves productivity by increasing duty cycle and reducing repair rates.



### Features

- Full function Capability (Torch Rotation, Filler Wire Feed, Electronic Arc Gap Control, Electronic Oscillation)
- Broad size range
- Guide Rings available for standard Pipe sizes
- Water-Cooled Torch uses standard Expendables
- Tool Kit standard



**Narrow Gap Bevel Geometry**  
shown on 25 mm [1"] wall pipe



**Guide Rings Mount Head on Pipe**

### Options

- Extension cables
- Single or dual wire feeder configurations
- Video Arc Monitoring. Various configurations allow remote operation.

# T HEAD 419

## Applications

- Fossil Power Plant Construction/Maintenance
- Steam Generation Equipment Fabrication
- Nuclear Power Plant Construction/Maintenance
- Chemical Facility Construction/Maintenance
- Shipyard Construction
- Gas Transmission Pipelines
- Process Piping



## Features

### GUIDE RINGS ALLOW USE ON PREHEATED PIPE

Mounting the head on an oversize guide ring with adaptor feet allows use on CrMo and other alloys requiring preheat. The adaptor feet create an air space and prevent heat damage to the head.



Adaptors

Three types of Adaptors can be simply screwed to each of the standard square tubes which are mounted on the Guide Ring.

- 25 mm (1") Adaptor Square tube
- 50 mm (2") Adaptor Square tube
- 3-12 mm (.13-.5") Adaptor Solid Bar (Magnatech can provide these in any dimension)



Adaptor Feet Attach Here

### FLX-TRACK™

In addition to welding pipe, the T Head is also used for ID and OD welding on larger tanks, vessels, and ductwork.

- Flexible track allows mounting on complex curved surfaces
- Standard 2.3m (7.5') Track sections bolt together for longer lengths
- Magnetic or Vacuum attachment



## Specifications

<b>Application</b>	Multi-pass orbital GTAW pipe-to-pipe, pipe-to-fitting	
<b>Cable length</b>	7.6 m (25') standard. Extension cables available	
<b>Pipe (tube) size range</b>	168 – 1524 mm (6 - 60") and larger	
<b>Filler wire module</b>	Wire size	Wire size: 0.8, 0.9, 1.0, 1.2 mm (.030", .035", .040", .045")
	Max. speed capability	2540 mm/min. (100 IPM)
	Spool size	1 kg (2 lbs) standard
<b>Oscillation module</b>	Max. oscillation stroke amplitude	16 mm (0.6275")
	Max. oscillation speed	1520 mm/min. (60 IPM)
	Oscillation dwell	0 – 1 second
	Cross seam adjustment	± 6.4 mm (0.25") fine adjustment ± 38 mm (1.5") course adjustment
<b>Arc gap control module</b>	13 mm (0.5") stroke. Additional mechanical adjustment allows welding heavier wall pipe	
<b>Torch propulsion module</b>	250 mm/min. (10 IPM) maximum rotation speed	
<b>Water-cooled torch</b>	300 A continuous	
<b>Torch adjustment capability</b>	Torch lead/lag adjustment	± 15 degrees (manual)
	Torch tilt adjustment	± 10 degrees (manual)
<b>Power supply compatibility</b>	Pipemaster 515, Pipemaster 516	

## Dimensions/weights

<b>Weight</b>	11.8 kg (26 lbs.) Single wire feeder without wire spool 13.4 kg (29.5 lbs.) Dual wire feeders without wire spools
<b>Axial clearance</b>	Torch C/L to Rear Extremity: 4950 mm (19.5") Torch C/L to Front Extremity: 290 mm (1.1")
<b>Radial clearance</b>	250 mm (9.8")