

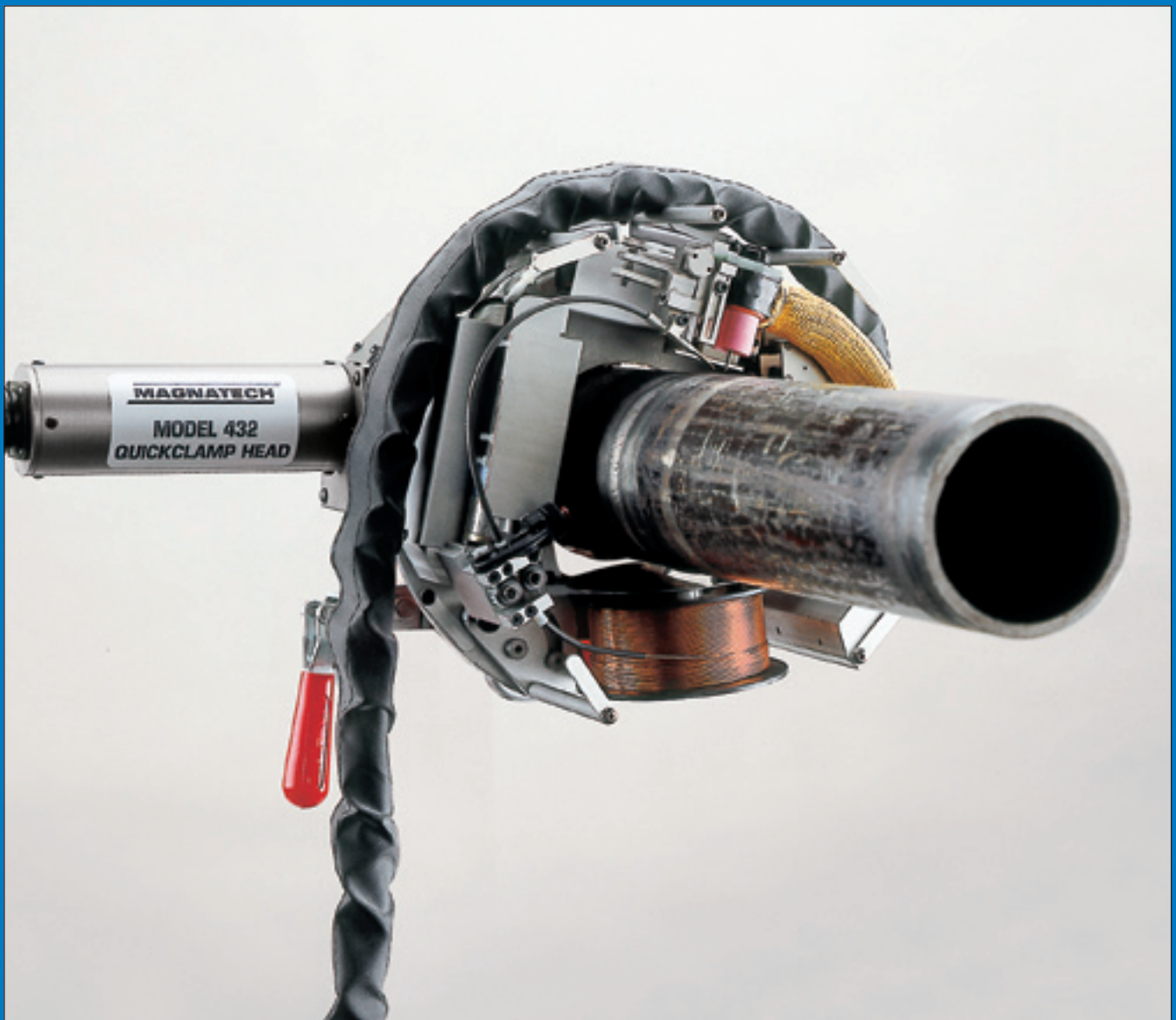
MAGNATECH

ORBITAL WELDING SYSTEMS

QUICKCLAMP WELD HEADS

Models 432 and 433

Orbital Weld Heads for
Multi-Pass GTAW Pipe Welding



Use with

- *Pipemaster Model 515 Power Source*
- *Pipemaster Model 516 Power Source*

QUICKCLAMP Weld Heads

Orbital Weld Heads for Multi-Pass GTAW Pipe Welding

Precision Tools for Perfect, Repeatable Welds

The Magnatech Quickclamp Weld Heads are designed to make pipe-to-pipe and pipe-to-fitting welds. They are “full function” – with the capability of reproducing all the precise motions of a skilled welder. A continuously adjustable clamp eliminates the need to interchange components when changing pipe sizes. Simply slip the Head over the pipe and clamp with a toggle lever. The Quickclamp Heads improve productivity by increasing duty cycle, reducing repair rates, and producing welds of consistent quality.

Cable Guides

control torch cable wrap up – prevent damage

3-Axis Position Adjustment for Filler Wire Nozzle.

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

Integral Filler Wire Feeder

accommodates range of wire diameters (separate floor-mounted feeder not required)

Filler Wire Spool.

Use standard 1 kg (2lb.) spools

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.

Arc Gap Control (Arc Voltage Control). Electronically maintains programmed arc length.



Water-Cooled Torch

with adjustable Lead/Lag Angle uses standard expendables

Features

- Multipass welding of tubes/pipes in all gravity positions
- Use economical standard 1 kg (2 lb.) wire spools
- Push button clutch for rapid cable unwind
- Heat tolerant steel bearings and chain drive
- Waterproof Carry Case/Tool Kit standard

- Socket Welding Kit and Tilt AVC option for angled torch applications
- Water-Cooled Torch uses standard Expendables

Options

- Extension Cables



TILT-AVC standard. Allows the torch to be pivoted for socket/fillet welding applications, maintaining the arc length correction motion along the tungsten electrode axis (tilt-torch bracket also provided standard).



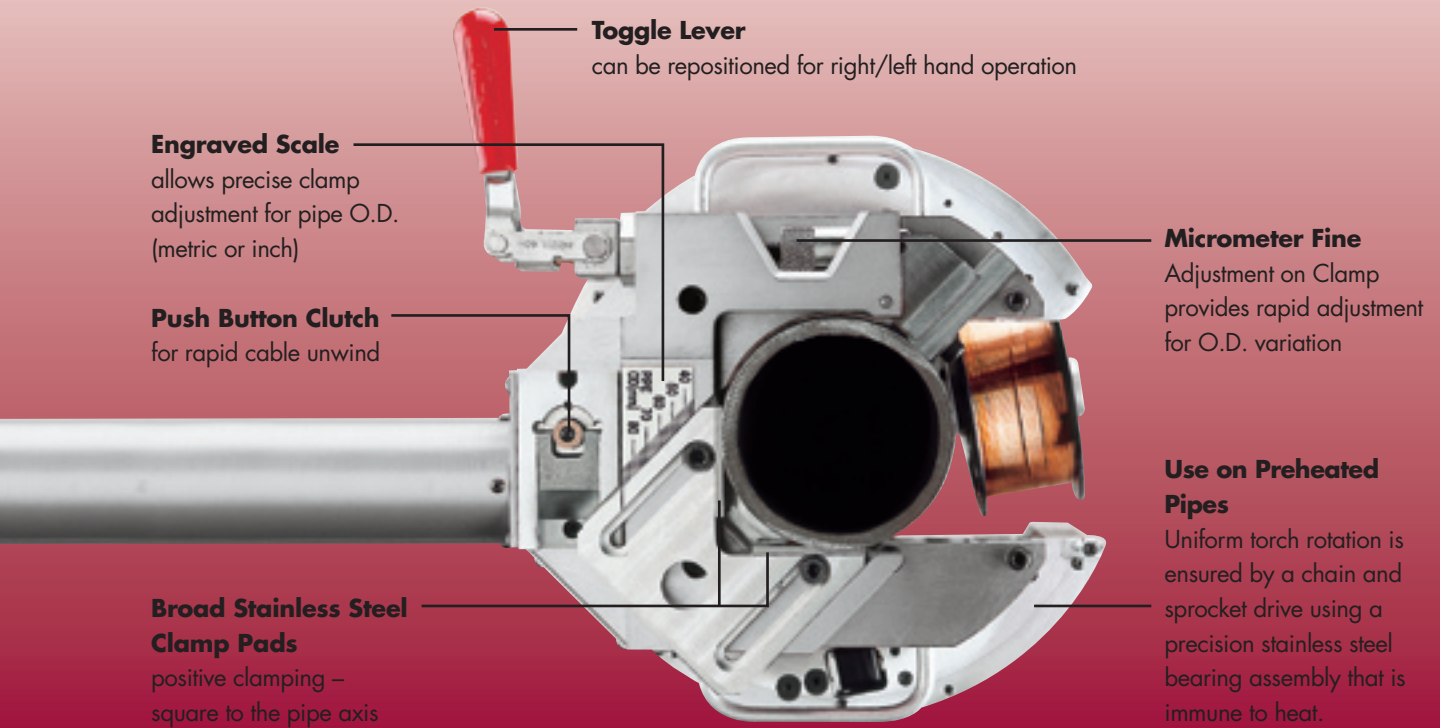
Head mounts entirely on one side of the joint, allowing use for pipe-to-fitting welds.



Pivoting Spool Mount. Unique design maintains tension on wire, prevents bending (not required on Model 433)



Narrow Axial Profile



Toggle Lever
can be repositioned for right/left hand operation

Engraved Scale
allows precise clamp adjustment for pipe O.D. (metric or inch)

Push Button Clutch
for rapid cable unwind

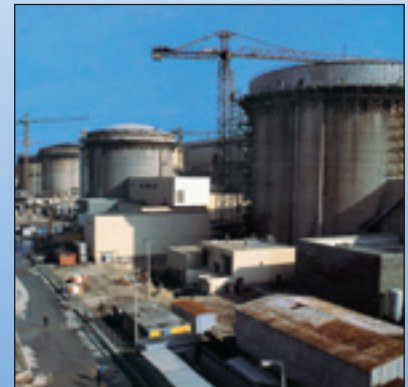
Broad Stainless Steel Clamp Pads
positive clamping – square to the pipe axis

Micrometer Fine
Adjustment on Clamp provides rapid adjustment for O.D. variation

Use on Preheated Pipes
Uniform torch rotation is ensured by a chain and sprocket drive using a precision stainless steel bearing assembly that is immune to heat.

Applications

- Fossil Power Plant Construction/Maintenance
- Steam Generation Equipment Fabrication
- Nuclear Power Plant Construction/Maintenance
- Chemical/Petrochemical Facility Construction and Maintenance
- Shipyard Construction
- Fabrication Shops
- Process Piping



The Quickclamp is used in diverse industries throughout the world

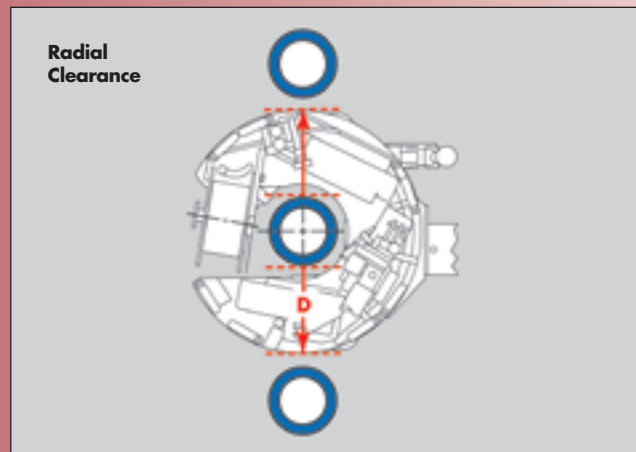
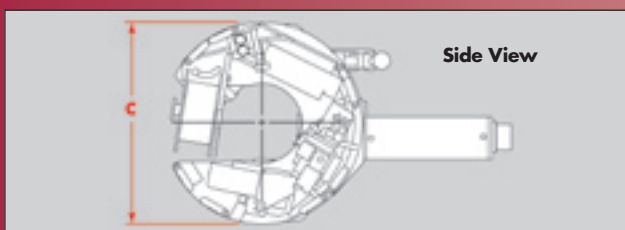
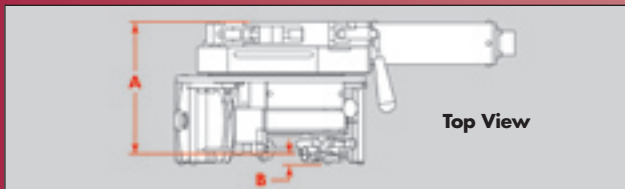


Specifications

	Quickclamp Model 432	Quickclamp Model 433
Applications	Multi-Pass Orbital GTAW pipe-to-pipe, pipe-to-fitting	
Pipe (Tube) OD Size Range	25mm – 89mm (1.0" – 3.5")	60mm – 168mm (2.375" – 6.625")
Filler Wire Module	Wire Size: 0.8, 0.9, 1.0mm (.030, .035, .040") Max. Speed Capability: 254cm/minute (100 IPM) Spool Size: Standard 1 kg (2 lb.)	
Oscillation Module	Max. Oscillation Stroke Amplitude: 16mm (0.625") Max. Oscillation Speed: 152cm (60 IPM) Oscillation Dwell: 0 – 1 second Cross Seam Adjustment: $\pm 6.4\text{mm}$ ($\pm 0.25"$)	
Arc Gap Control Module	13mm (0.5") Stroke. Additional Mechanical adjustment allows welding heavier wall pipe.	
Torch Propulsion Module	0.1 – 1.8 rpm	0.05 – 0.9 rpm
Water-Cooled Torch	200 A Continuous	
Torch Adjustment Capability	Torch Lead/Lag Adjustment: ± 15 Degrees (manual) Torch Tilt Adjustment: ± 10 Degrees (manual)	
Cable Length	8m (25') Standard. Extension cables available.	
Power Supply Compatibility	Pipemaster Model 515, Pipemaster Model 516	

Dimensions/Weights

	Quickclamp Model 432	Quickclamp Model 433
Weight	5.9 kg (13.0 lb.)	8.1 kg (17.8 lb.)
Axial Clearance (Torch Centerline to Rear Extremity) (A)	158mm (6.24")	158mm (6.24")
Axial Clearance (Torch Centerline to Front Extremity) (B)	10mm (0.41")	10mm (0.41")
Width (C)	241mm (9.50")	321mm (12.63")
Radial Clearance Requirement (D)	$[241\text{mm (9.50") - Pipe OD}] \div 2 = \text{Radial Clearance}$	$[321\text{mm (12.63") - Pipe OD}] \div 2 = \text{Radial Clearance}$



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