

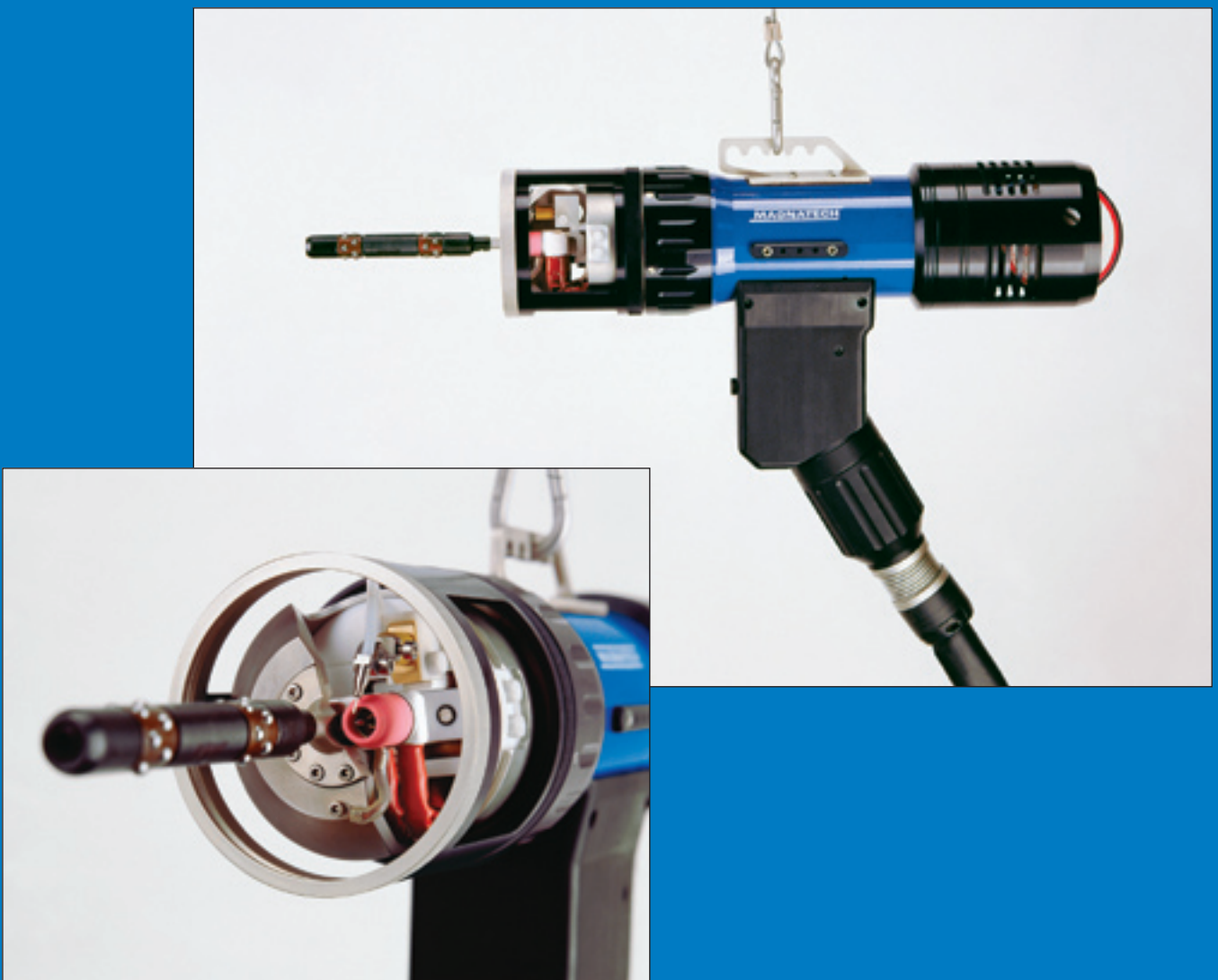
MAGNATECH

ORBITAL WELDING SYSTEMS

TUBESHEET WELD HEADS

Models 424, 425, 430

Weld Heads for Fusion and Wire Feed
GTAW Tube-to-Tubesheet Welding



Use with

- *Tubemaster Model 514*
- *Pipemaster Model 515*
- *Pipemaster Model 516*

TUBESHEET Weld Heads

Weld Heads for Fusion and Wire Feed GTAW Tube-to Tubesheet Welding

Precision Tools for Perfect, Repeatable Welds

Magnatech Tubesheet Heads are designed to make tube-to-tubesheet welds with precision and repeatability.

All models can be used for fusion welding. The Models 424 and 425 provide for filler wire addition – an integral Head-mounted feeder is standard.

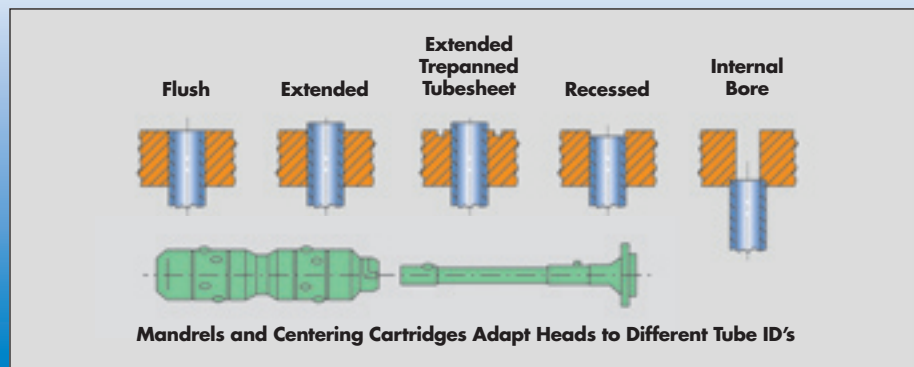
Three models cover the size range of 10 to 140 mm (0.4 to 5.52") OD. Digital technology forever eliminates the need for periodic calibration – rotation and wire speed remain accurate regardless of wear, and Heads can be interchanged without time-consuming recalibration.

These weld Heads improve productivity by increasing duty cycle, reducing repair rates and producing welds of consistent quality.

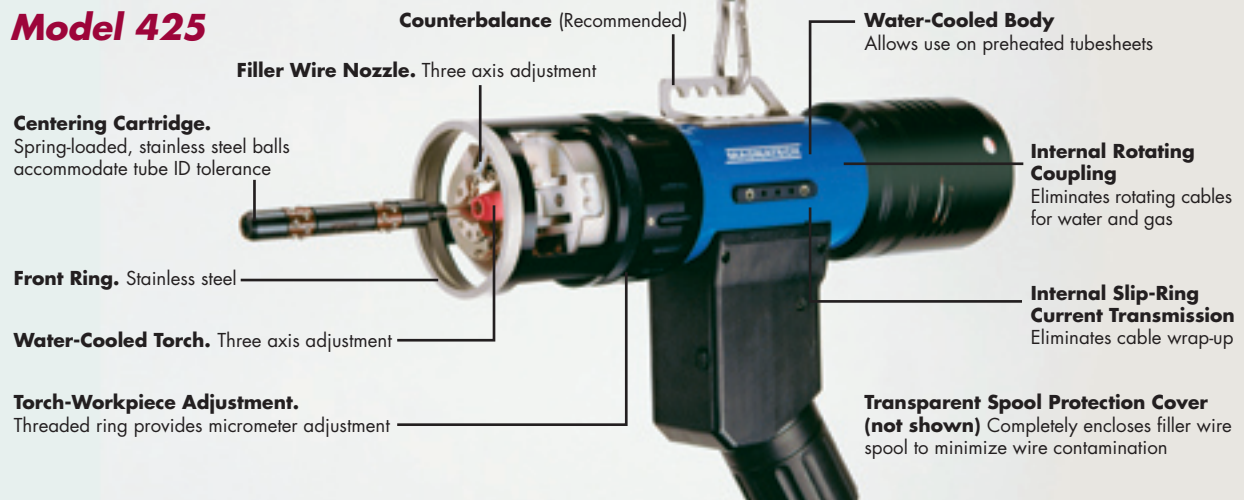
Tube Geometries

- Model 424 ideal for all tubesheet geometries
- Model 425 with AVC for multipass welding
- Model 430 ideal for fusion welding of flush or slightly extended tubes where where preheat is not required ¹

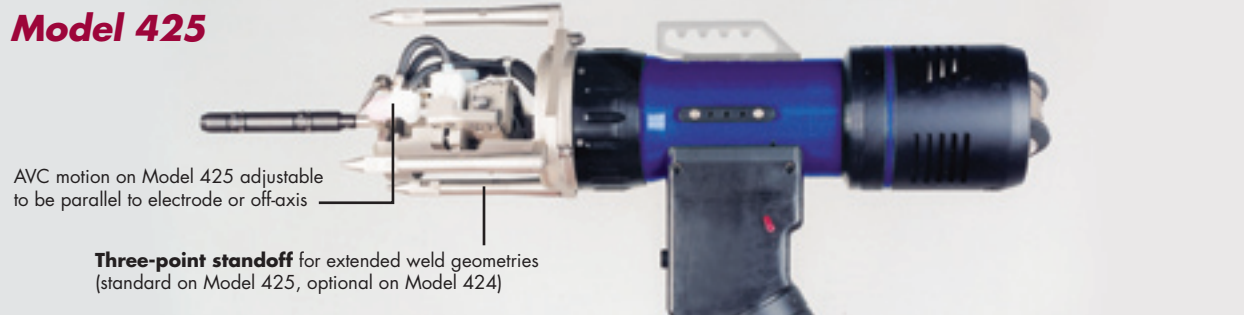
¹ The Model 430 uses an expanding mandrel design



Model 425



Model 425



Features

Models 424 and 425

- Use standard 1 kg (2 lb.) wire spools
- Torch adjustments accommodate all geometries
- Water-cooled body for preheated tubesheets
- Filler wire feeder rotates with torch – prevents wire flip
- Arc Voltage Control (425 only) allows multipass welding

Model 430

- Lightweight Head for fusion welding
- Simple expanding mandrel clamps Head in tubes
- Integral Purge Gas Chamber ideal for welding Titanium

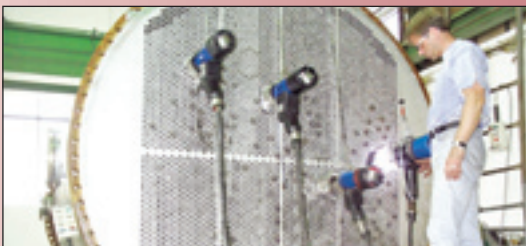
Options

- Extension cables
- Purge Gas Chamber for Titanium welding
- Internal bore torches allow ID fusion welds



Applications

- Heat exchanger seal and strength welds
- Power generation
- Petrochemical
- Sanitary • Food and beverage



Specifications

	Model 424	Model 425	Model 430
Applications			
Joint Design	Extended, Flush, Recessed and Internal Bore	Extended, Flush, Recessed and Internal Bore	Flush, Slightly Extended
Pitch Pattern	Triangular or Square	Triangular or Square	Triangular or Square
Tube O.D. Size Range*	10 – 78mm (.4 – 3.07") *10 – 38mm (.4 – 1.5") with Electrode Angle at 30° *10 – 78mm (.4 – 3.07") with Electrode Parallel to Tube	10 – 140mm (.4 – 5.52")	10 – 26mm (.4 – 1.02")
Basic Head			
Rotation Speed	0.33 – 6 rpm	0.33 – 6 rpm	0.33 – 6 rpm
Filler Wire Module	Rotates Coaxially with Torch	Rotates Coaxially with Torch	N/A
Wire Size	0.8/0.9/1.0/1.2mm (.030"/.035"/.040"/.045")	0.8/0.9/1.0/1.2mm (.030"/.035"/.040"/.045")	N/A
Speed Capability	0 – 150 cmpm (0 – 60 ipm)	0 – 150 cmpm (0 – 60 ipm)	N/A
Spool Size	1 kg (2 lb)	1 kg (2 lb)	N/A
Water-Cooled Torch			
Amperage Capability	200 A Continuous	200 A Continuous	100 A @ 60%
Cable Length	8M (25') Standard Extension Cables available	8M (25') Standard Extension Cables available	8M (25') Standard Extension Cables available
Head Weights			
Weight	8 kg (18 lb)	9 kg (20 lb)	1.2 kg (2.65 lb)
Weight with Filler Wire	10 kg (22 lb)	11 kg (24 lb)	N/A
Torch/Wire Nozzle Adj.	3 Axis Adjustment	3 Axis Adjustment	3 Axis Adjustment, Torch Only
Machine Body Cooling	Yes, Water	Yes, Water	No
Torch-Workpiece Adj.	Threaded Ring	Threaded Ring	Threaded Ring
Manual	± 5 mm (0.2")	± 5 mm (0.2")	± 5 mm (0.2")
Arc Voltage Control	No	Yes	No
AVC Stroke	N/A	16 mm (0.625")	N/A
Weld Orientation	All (Vertical & Horizontal Gravity Positions)	All (Vertical & Horizontal Gravity Positions)	All (Vertical & Horizontal Gravity Positions)
Power Supply Compatibility	Tubemaster and Pipemaster Models	Pipemaster Models Only	Tubemaster and Pipemaster Models

Represented By:

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