

# MD-2030

## Multi-Directional Magnetic Wet Bench for AC, HWDC or 1-Phase FWDC Magnetization

The MD-2030 multi-directional magnetic bench offers 2,500 amps of Alternating Current, 3,000 amps of Half Wave Direct Current and 3,000 amps of 1-phase Full Wave Direct Current for time-saving multidirectional magnetization which can find defects in all orientations with one mag-cycle.

The two outputs (contact and Flux-Flo coil) each offer AC, HWDC or 1-Phase FWDC, and are independently adjustable to balance the magnet field intensity.

### BENEFITS

#### Maximize part throughput

- Maximize throughput by magnetizing a part in all directions in a single shot
- Reduce processing time with operator-enabled automatic Double-Mag Shot
- Generate 300+ shots per hour at maximum unit output
- Optional Database System with advanced touch screen operating interface and barcode scanner eliminates time spent on manual inputs
- Optional automated conveyer system minimizes part handling by transporting parts directly to the inspection booth

#### Easy to use and maintain

- Make quick operational adjustments using the simple, user-friendly operator interface with touch-screen controls
- External pump system provides fast access for easy cleaning and service

#### Advanced process control

- Assure testing accuracy and repeatability with direct amperage control and fluctuation mitigation
- Maximize consistency between tests with 1,000 customer-programmable techniques
- Track productivity using the automatic parts counter
- Prevent accidental and unauthorized alterations with multiple user profiles and varying tiers of control for a range of operator experience levels
- Daily reminder alarms help ensure measurements are compliant with process specification requirements

#### Real-world dependability for minimal downtime

- Allen-Bradley PLC provides reliable controls and off-the-shelf replacements
- Advanced agitator system helps prevent blockages and clumping by keeping magnetic particles well suspended
- Rely on our industry leading warranty with best in-class service delivered by a global network of trained Magnaflux authorized service centers

### STANDARD FEATURES

- 5% duty cycle of 0.5 seconds on, 10 seconds off at maximum output
- Allen-Bradley PLC
- Control circuit feedback loop for amperage regulation and repeatability
- Advanced touch-screen operator interface
- 1,000 customer-programmable techniques
- Automatic parts counter
- User-controlled security systems with password protection, supervisor locks and customizable operator access profiles
- Daily reminder alarms to verify UV light, visible light and particle bath concentration for process control requirements
- Dimmable UI display helps reduce operator eye fatigue and keeps ambient light below required minimums
- External pump system for particle bath agitation, circulation and application
- Integrated rapid-reversing FWDC or decaying-AC demagnetization with 1-touch control
- Low-voltage output minimizes electrical exposure for operator safety
- Adjustable mag shot time from 0.5 to 2 seconds
- Automatic Double-Mag Shot with 1-touch control
- Mag-shot-activating front push bar with 1-touch control to enable/disable this feature
- Two large, easy-to-read digital ammeters confirms amperage sent through the part
- Current assurance alarm with visual and audible alerts and alarm log to confirm magnetizing current delivery
- Solid state circuitry increases lifetime and performance of machinery

### PRODUCT PROPERTIES

<b>Magnetizing Current Capacity</b>	<b>AC</b>	2,500 A
	<b>HWDC</b>	3,000 A
	<b>1-Phase FWDC</b>	3,000 A
<b>Maximum Part Length</b>	41 in / 104 cm	
<b>Maximum Unsupported Part Weight Capacity</b> Only using Head and tailstock mounted V-Blocks	300 lb / 136 kg	
<b>Maximum Supported Part Weight Capacity*</b> (using rail-mounted steady rests) Both limits are considering the use of Rail Mounted Steady rest to help support part on rails	700 lb / 317 kg <i>(1,500 lb / 680 kg)</i>	
<b>Available Voltages</b>	230, 380, 415, 460, 575 V	
<b>Available Frequencies</b>	50 or 60 Hz	

\* Optional feature configurations shown in italics

### UPGRADE OPTIONS

- Database System upgrade with advanced touch screen operating interface and barcode scanner for quality control traceability, record automation and reporting
- Auto-Bath upgrade with 22 in / 55 cm capacity decreases processing time by automatically clamping, bathing, magnetizing and unclamping the part
- XG-Series conveyer inspection booth maximizes throughput by automatically transferring inspection-ready parts to an adjacent inspection booth
- Inspection Enclosure Hood with ventilation fan for a darkened inspection area without sacrificing function and operator comfort, includes an EV6000 LED UV lamp, flame resistant curtains and visible lighting
- ST700 stationary overhead LED UV lamp, 100-240 V, 50-60 Hz

**CONFIGURATION OPTIONS**

- 16 in / 40 cm Coil (instead of Flux-Flo Coils)
- Reinforced Rail for heavier part load, 1,500 lb / 680 kg part capacity
- Dual-Touch Sensor eliminates risk of injury during pinch points

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