AD-2045

Magnetic Wet Bench with AC and DC Magnetization

The AD-2045 magnetic benches provide 4,000 amps of Alternating Current and 5,000 amps of 1-phase Full Wave Direct Current magnetization for finding surface and sub-surface defects during wet method magnetic particle inspection.

The two outputs are independently adjustable to set each magnetic field, circular or longitudinal.

**BENEFITS**

**Faster part processing**
- 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 and record keeping

**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

**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
- Assure testing accuracy and repeatability with direct amperage control and fluctuation mitigation

**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
- Simple touch-screen operator interface
- External pump system for particle bath agitation, circulation and application
- Integrated 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
- Current assurance indicator light confirms magnetizing current delivery
- Solid state circuitry increases lifetime and performance of machinery
**PRODUCT PROPERTIES**

<table>
<thead>
<tr>
<th><strong>Magnetizing Current Capacity</strong></th>
<th>AC 4,000 A</th>
<th>FWDC 5,000 A</th>
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</thead>
<tbody>
<tr>
<td><strong>Maximum Part Length</strong>*</td>
<td>54 in / 137 cm (102 in / 259 cm, 146 in / 370 cm)</td>
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<tr>
<td><strong>Maximum Unsupported Part Weight Capacity</strong></td>
<td>300 lb / 136 kg</td>
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<td>(using Head and tailstock mounted V-Blocks)</td>
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<tr>
<td><strong>Maximum Supported Part Weight Capacity</strong>* (using rail-mounted steady rests)</td>
<td>700 lb / 317 kg</td>
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<td>Both limits are considering the use of Rail Mounted Steady rest to help support part on rails</td>
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<tr>
<td><strong>Maximum Part Diameter</strong></td>
<td>12 in / 30 cm (16 in / 40 cm, 20 in / 50 cm)</td>
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</tr>
<tr>
<td><strong>Particle-Bath Tank Capacity</strong>*</td>
<td>20 gal / 75 L (32 gal / 121 L, 55 gal / 208 L)</td>
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<tr>
<td><strong>Available Voltages</strong></td>
<td>230, 380, 415, 460, 575 V</td>
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<tr>
<td><strong>Available Frequencies</strong></td>
<td>50 or 60 Hz</td>
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</table>

* 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**

- Long & Extra-Long Part Capacity to increase max clamping length to 102 in / 259 cm or 146 in / 370 cm
- 16 in / 40 cm or 20 in / 50 cm Coil, or 19.5 in / 49 cm Clam-Shell Coil (instead of 12 in / 30 cm coil)
- Pneumatic Tailstock makes it faster and easier to position and remove longer parts from between the contacts
- Rotating Contacts with 70 lb / 31 kg part capacity minimizes part handling during inspection (minimum coil size required is 16 in / 40 cm, reduces part length capacity by 9 in / 23 cm, not compatible with Auto-Bath)
- Oversized Contact Assembly for headstock and tailstock, 12 x 12 in / 30 x 30 cm (minimum coil size required is 16 in / 40 cm)
- Reinforced Rail for heavier part load, 1,500 lb / 680 kg part capacity
- Dual-Touch Sensor eliminates risk of injury during pinch points
- NRTL Certification to CSA C22.2 No. 61010-1