

# 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

#### 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

<b>Magnetizing Current Capacity</b>	<b>AC</b> 4,000 A <b>FWDC</b> 5,000 A
<b>Maximum Part Length*</b>	54 in / 137 cm <i>(102 in / 259 cm, 146 in / 370 cm)</i>
<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
<b>Maximum Part Diameter</b>	12 in / 30 cm <i>(16 in / 40 cm, 20 in / 50 cm)</i>
<b>Particle-Bath Tank Capacity*</b>	20 gal/ 76 L <i>(34 gal/ 129 L, 46 gal/ 174 L)</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

- 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