

## 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.



#### Faster part processing

- Reduce processing time with operatorenabled 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

#### NDT Supply.com, Inc. 7952 Nieman Road Lenexa, KS 66214-1560 USA

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#### **PRODUCT PROPERTIES**

| Magnetizing Current  | <b>AC</b> 4,000 A   |
|--|---------------------|
| Capacity   | <b>FWDC</b> 5,000 A |
| Maximum Part Length*   | 54 in / 137 cm      |
|  | (102 in / 259 cm,   |
|  | 146 in / 370 cm)    |
| Maximum Unsupported<br>Part Weight Capacity                      | 300 lb / 136 kg     |
| Only using Head and tailstock mounted V-Blocks                   |                     |
| Maximum Supported Part   | 700 lb / 317 kg     |
| Weight Capacity* (using  |                     |
| rail-mounted steady rests)                                       |                     |
| Both limits are considering the                                  |                     |
| use of Rail Mounted Steady rest<br>to help support part on rails |                     |
|  | 12 in / 20 am       |
| Maximum Part Diameter  | 12 in / 30 cm       |
|  | (16 in / 40 cm,     |
|  | 20 in / 50 cm)      |
| Particle-Bath Tank Capacity*                                     | 20 gal / 75 L       |
|  | (32 gal / 121 L,    |
|  | 55 gal / 208 L)     |
| Available Voltages   | 230, 380, 415, 460, |
| -  | 575 V               |
| Available Frequencies  | 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
- NRTL Certification to CSA C22.2 No. 61010-1

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