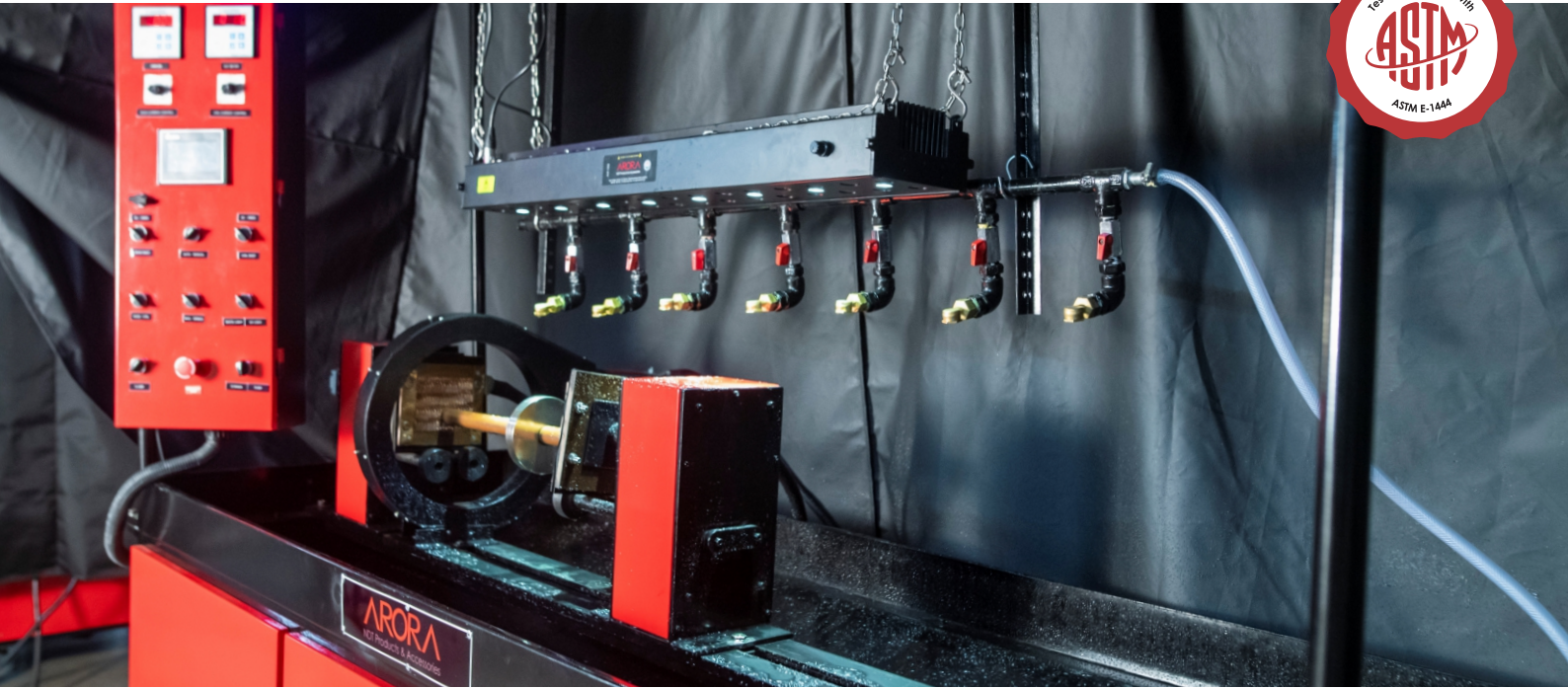


ABM Series Magnetic Bench Machine



The ABM Series are heavy duty bench machine designed for MPI inspection. The ABM Series magnetic benches are available in Six configuration and three sizes (Small/Medium/Large) that offers 1500 Amps to 6000 Amps range of Alternating Current (AC), Half Wave Direct Current (HWDC) or Full Wave Direct Current (FWDC).

The ABM Series magnetic benches are industrial magnetic particle inspection machine, which can rapidly and easily magnetise the job which can further be inspected for surface and subsurface defects in ferromagnetic material without any destruction. The machine can be widely used in any field that need defect inspection, quality control, safety inspection and in-service inspection e.g. manufacturing industry, iron & steel metallurgical industries, metalworking, aerospace, and railway transportation etc.

The Head and coil shots both offer AC, HWDC or FWDC magnetization and are independently adjustable to set each magnetic field i.e. circular or longitudinal magnetization.

Salient Features of ABM Series

- AC, HWDC or FWDC Mag facility
- Auto AC Demagnetization facility with coil only
- Current assurance indication & audible alerts
- Thyristor based stepless current control
- Two large, easy-to-read analogue meters* confirms amperage sent through the part
- Low-voltage output with overload & short circuit protected switching
- Powder coated rust proof MS housing with matt finish
- Anti vibration mount
- Pneumatic headstock makes it faster & easier to position & remove longer parts
- Foot Switch & push button (at control panel) for ease of operation
- Emergency Cut Off
- Dark room with black curtain & ventilation fan to facilitate inspection under UV/Black light

- 20 liters SS tank for water/oil based magnetic powder bath
- External pump system for particle bath agitation, circulation and application
- PLC based reliable control & precise operation
- Automatic sequential mag shot
- Mag-shot-activation with 1-touch control to enable/disable this feature through HMI & foot switch
- User-controlled security systems with password protection, supervisor locks & customizable operator access profiles
- User friendly operator interface for control parameter in-feed and operation mode selection and display

Optionals:

- *Digital Meters
- Combined Magnetization (with two transformers)
2000 Amps for 7.5 KAT
3000 Amps for 15 KAT

General Specifications:

Particulars	Specification
Input Voltage	415 Volt, 50 Hz AC
Phase	3-Phase, 1-Neutral
Operating Temperature	55° C
Humidity	95 %
Current Control	SCR stepless control
Pneumatic	5 Bar
Coil Diameter	305 mm / 12 inch Standard other diameter are available on request
Bath Tank	20 Litre

Technical Specifications:

Specification	ABM-1500S	ABM-2000S
Current Range (Circular Contact Magnetization)	1500 Amps AC / HWDC / FWDC	2000 Amps AC / HWDC / FWDC
Current Range (Longitudinal Non Contact Magnetization)	1500 Amps AC / HWDC / FWDC	2000 Amps AC / HWDC / FWDC
Duty Cycle	2 Sec ON, 6 Sec OFF	2 Sec ON, 6 Sec OFF
Maximum Part Length	700 mm/ 27.5 inch	700 mm/ 27.5 inch
Part Diameter / Thickness	45 mm/ 1.8 inch	64 mm/ 2.5 inch
Overall Bench Dimension (LxWxH)	1500 mm ×600 mm × 2100 mm	1500 mm ×600 mm × 2100mm

Specification	ABM-3000M	ABM-4000M
Current Range (Circular Magnetization)	3000 Amps AC / HWDC / FWDC	4000 Amps AC / HWDC / FWDC
Current Range (Longitudinal magnetization)	3000 Amps AC / HWDC / FWDC	3000 Amps AC / HWDC / FWDC
Duty Cycle	2 Sec ON, 8 Sec OFF	2 Sec ON, 8 Sec OFF
Maximum Part Length	1000 mm / 39.3 inch	1000 mm / 39.3 inch
Part Diameter / Thickness	95 mm / 3.75 inch	127 mm / 5 inch
Overall Bench Dimension (LxWxH)	1800 mm ×700 mm × 2100 mm	1800 mm ×700 mm × 2100 mm

Specification	ABM-5000L	ABM-6000L
Current Range (Circular Magnetization)	5000 Amps AC / HWDC / FWDC	6000 Amps AC / HWDC / FWDC
Current Range (Longitudinal magnetization)	3000 Amps AC / HWDC / FWDC	3000 Amps AC / HWDC / FWDC
Duty Cycle	2 Sec ON, 10 Sec OFF	2 Sec ON, 10 Sec OFF
Maximum Part Length	1400 mm/55 inch	1400 mm/55 inch
Part Diameter / Thickness	158 mm/6.25 inch	190 mm/ 7.5 inch
Overall Bench Dimension (LxWxH)	2200 mm ×800 mm ×2100 mm	2200 mm ×800 mm×2100 mm

Kit Contains:

- Magnetic Particle Bench Machine
- Operational Manual
- Certificate of Conformance

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