

MAGNETIC PARTICLE INSPECTION EQUIPMENT



SQUAREMAG power sources are designed to use in rugged industrial atmosphere. Widely used for Inspection of weldments, castings, Engine blocks and service parts like crane hooks, truck forks etc. Meets ASTM E 1444 requirements

Features:

- ➔ Infinitely variable thyristorised magnetizing current control
- ➔ AC decay demagnetization facility
- ➔ Analog ammeter for displaying the magnetization Amps.
- ➔ Output terminals to connect magnetizing cables of Prod method or Cable wrap method.
- ➔ Provision for remote control assembly
- ➔ Suitable for Prod method, Cable wrap method and coil methods
- ➔ Heavy duty handles for rugged industrial applications.

SPECIFICATIONS	UNITS	SMP-15	SMP-20	SMP-30
INPUT SUPPLY	VOLTS	230/415	415	415
FREQUENCY	HZ	50	50	50
PHASE	PH	2 LINES OF 3 PH	2 LINES OF 3 PH	2 LINES OF 3 PH
MAX. OUTPUT CURRENT	AMPS	1500	2000	3000
DUTY CYCLE AT MAX O/P	%	50	50	50
OPEN CIRCUIT VOLTAGE	V	6.5	8	16
CLASS OF INSULATION	CLASS	F	F	F
KVA RATING	KVA	10	12	48
LINE CURRENT	AMPS	45/24	45	60
CURRENT CONTROL SYSTEM	--	SCRCONTROL	SCRCONTROL	SCRCONTROL
DIEMENSIONS (L X W X H)	MM	550 X 280 X 280	600 X 280 X 280	650 X 350 X 350
NET WEIGHT (APPROX)	KGS	58	72	102
AMMETER	----	DIGITAL / ANALOG	DIGITAL / ANALOG	DIGITAL / ANALOG

Optional accessories:

- ➔ Magnetising cables with prod method and cable wrap methods.
- ➔ Validation Test blocks
- ➔ C-clamp assembly
- ➔ Scissor clamps
- ➔ Magnetic latch

Manufactured by :

SQUAREMAG SYSTEMS

Plot No. 91, H.No. 5-35/153, Prasanth Nagar,
Kukatpally Industrial Estate, Kukatpally, Hyderabad-72.

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MAGNETIC PARTICLE INSPECTION EQUIPMENT



SQUAREMAG mobile magnetic particle inspection units are ruggedly constructed for long, maintenance free service. The advanced solid state circuitry greatly reduces the size and weight of SMP-40 & SMP-60

Key Applications :

These self-contained, mobile units can be moved or rolled anywhere in shop, foundry, refinery, petrochemical plant or manufacturing facilities to detect surface and near surface cracks by the MPI method.

Remote Option :

A special remote-control unit is available for use with the mobile power sources. It provides control of the magnetizing and demagnetizing current from a convenient hand-held unit. A remote On-Off switch on the front panel of the machine provides for quick selection of local or remote-controlled operation.

Controls :

All operating controls and indicators are located on the recessed front panel. The easily read ammeter shows magnetizing current in either AC or half-wave DC operating modes.

SPECIFICATIONS	UNITS	SMP-40	SMP-60
INPUT SUPPLY	VOLTS	415	415
FREQUENCY	HZ	50	50
PHASE	PH	2 LINES OF 3 PH	2 LINES OF 3 PH
MAX. OUTPUT CURRENT	AMPS	4000	6000
DUTY CYCLE AT MAX O/P	%	50	50
OPEN CIRCUIT VOLTAGE	V	17	17
CLASS OF INSULATION	CLASS	F	F
KVA RATING	KVA	64	108
CURRENT CONTROL SYSTEM	--	SCRCONTROL	SCRCONTROL
DIEMENSIONS (L X W X H)	MM	650 X 1000 X 900	650 X 1000 X 900
NET WEIGHT (APPROX)	KGS	250	325
AMMETER	----	DIGITAL / ANALOG	DIGITAL / ANALOG

Optional Accessories:

- Magnetising cables with prod method and cable wrap methods.
- Validation Test blocks
- C-clamp assembly
- Scissor clamps
- Magnetic leech
- Remote Control Pendant

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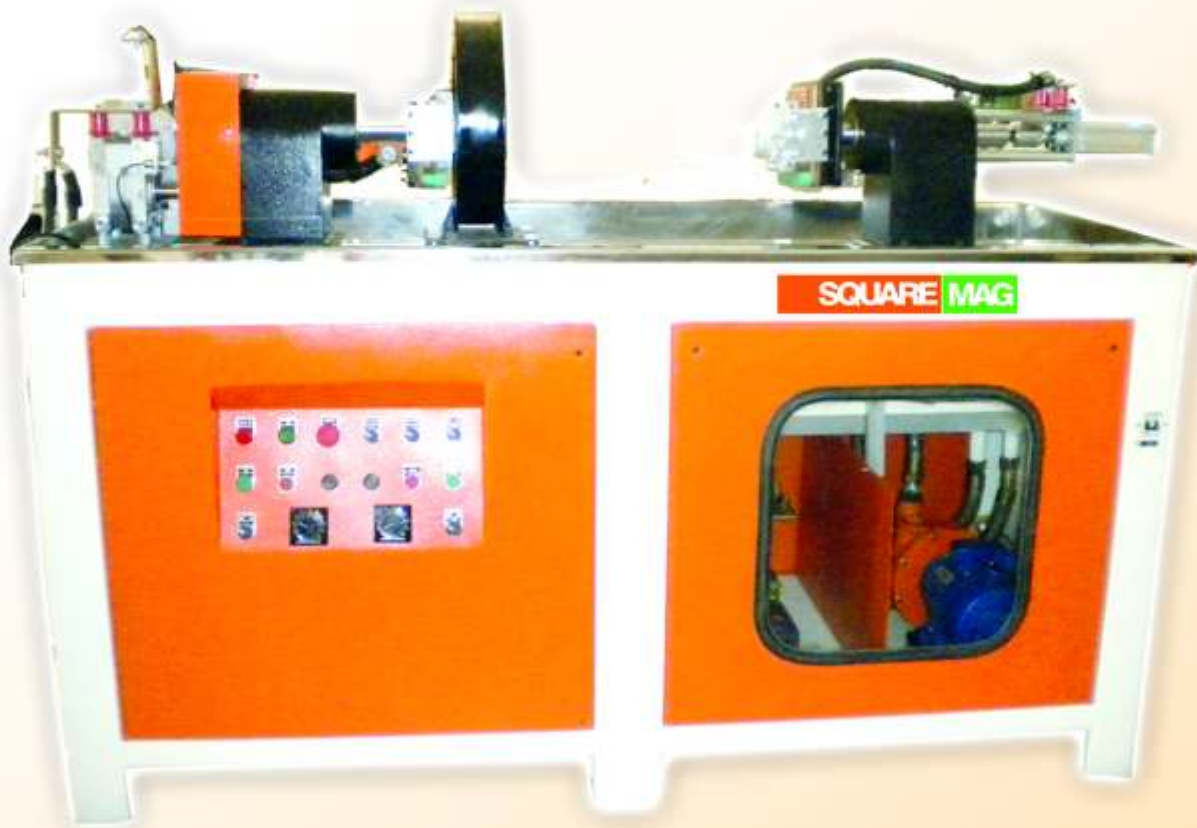
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MAGNETIC PARTICLE INSPECTION EQUIPMENT



SQUAREMAG Wet Horizontal MPI Bench units provide outstanding defect detection and provide major time and cost savings over conventional magnetic testing methods. By providing combination magnetization of the part in multiple directions, virtually all defects can be revealed without having to process the part with a separate head shot and coil shot, which is the case with conventional

Features

- Suitable for contact shot, coil shot and central conductor magnetization.
- Combination of Circular and Longitudinal magnetization facility by logically sequencing the magnetization.
- Infinite variable Thyristorised current control
- Inbuilt power source with solid-state controls
- Double digital ammeter for current readings with retention facility.
- Stainless steel bath circulation tank and Agitation system
- Footswitch operated Pneumatic Headstock.
- Rail mounted movable tailstock with mechanical lock.
- Current assurance indicator.
- Steady rest mounting provision for Head and tailstock mounted Steady rests.

MAGNETIC PARTICLE INSPECTION EQUIPMENT

SQUAREMAG range of wet horizontal magnetic Particle inspection equipments being used in Automotive parts (Forged, Machined and Heat treated conditions), Aircraft engine & structural parts, Power generation, Oil & gas, Foundry, Steel manufacturers (Bright bar, & Black bar) etc, Overhaul, service and MRO industries.

SPECIFICATIONS	SMB-30	SMB-45	SMB-60
MAX. OUT PUT	2500 AMPS AC	4000 AMPS AC	5000 AMPS AC
	3000 AMPS FWDC	5000 AMPS FWDC	6000 AMPS FWDC
MAX. JOB LENGTH (STD)	1300 MM	1300 MM	1300 MM
COIL SIZE (STD), NO.OF TURNS	300 MM, 5	300 MM, 5	300 MM, 5
INPUT SUPPLY	415 V, 50 HZ, 1PH. (2 LINES OF 3 PH)	415 V, 50 HZ, 1PH. (2 LINES OF 3 PH)	415 V, 50 HZ, 1PH. (2 LINES OF 3 PH)
MAX. COIL OUTPUT(12")	1300 AMPS AC	1600 AMPS AC	1800 AMPS AC
	2700 AMPS FWDC	4500 AMPS FWDC	5400 AMPS FWDC
LINE AMPS	55 A	135 A	250 A
O C VOLTAGE	16 V	26 V	17V
TRANSFORMER	48 KVA	120 KVA	108 KVA
TRANSFORMER INSULATION	'F' CLASS	'F' CLASS	'F' CLASS
DUTY CYCLE	INTERMITTENT	INTERMITTENT	INTERMITTENT
THYRISTOR	55 A	132 A	250 A
WHITE LIGHT IN DARK ROOM	<10 LUX	<10 LUX	<10 LUX
AIR SUPPLY REQUIRED	4-6 BAR	4-6 BAR	4-6 BAR
BATH TANK	S S 304	S S 304	S S 304
BATH ATNK CAPACITY	40 LTRS	40 LTRS	40 LTRS
JOB CLAMPING	PNEUMATIC	PNEUMATIC	PNEUMATIC

Options available against request

- Black hood for fluorescent Inspection
- Auto bath application
- Contact block adaptor and extension copper cables
- Small parts adaptor
- Swivel mounting fixture
- Steady rest for heavy parts
- Centrifuge tubes
- Copper Central conductors
- Copper pads

Distributor

Manufactured by :

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MAGNETIC PARTICLE INSPECTION EQUIPMENT



SQUAREMAG wet horizontal magnetic particle inspection equipment is used as a Multi-mode testing for surface and subsurface inspection on critical industrial and aerospace components. AC and Half Wave DC are available to meet test specifications.

A variety of coil diameters and bed lengths are available to suit a wide range of part configuration requirements.

Features

- Inbuilt Power source with solid-state controls
- Thyristorised self regulating current controls
- Current assurance indicator
- Digital current reading ammeters for contact and coil currents with retention facility.
- Pneumatic change over contactor for AC/HWDC and Contact/coil
- AC decay demagnetization facility.
- Stainless steel tank with necessary slope for collection of magnetic ink.
- 0.5 hp pump with recirculation system for proper suspension of magnetic particles.
- Pneumatic operated Head stock and adjustable tail stock with necessary insulations for the contact plates.
- Operator control panel is provided on the bench at convenient height.

SMB-20 WET HORIZONTAL MPI BENCH UNIT - HW SERIES

MAGNETIC PARTICLE INSPECTION EQUIPMENT

SQUAREMAG range of wet horizontal magnetic Particle inspection equipments being used in Automotive parts (Forged, Machined and Heat treated conditions), Aircraft engine & structural parts, Power generation, Oil & gas, Foundry, Steel manufacturers (Bright bar, & Black bar) etc, Over haul, service and MRO industries.

Specifications

MAX. OUT PUT	2000 AMPS AC/ HWDC
MAX. JOB LENGTH	400 MM (Extra lengths on request)
COIL SIZE	250 MM
NO.OF TURNS OF COIL	5
INPUT SUPPLY	415 V, 50 HZ, 1PH. (2 LINES OF 3 PH)
MAX. COIL OUTPUT	900 AMPS AC 1300 AMPS HWDC
LINE AMPS	32 A
O C VOLTAGE	8.0 V
TRANSFORMER	10 KVA
TRANSFORMER CLASS OF INSULATION	'F'
DUTY CYCLE	INTERMITTENT
THYRISTOR	25 A
RECTIFIER ASSLY.	2000 Amps
WHITE LIGHT IN DARK ROOM	<10 LUX
FOOT PRINT	1400 X 1200MM
AUXILARY SUPPLY	230V, 5 AMPS
PUMP	0.5 HP X 1440 PRPM
BATH TANK	S S 304, 20 ltrs

Options available against request

- Black hood for fluorescent Inspection
- Auto bath application
- Contact block adaptor and extension copper cables
- Small parts adaptor
- Swivel mounting fixture
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