

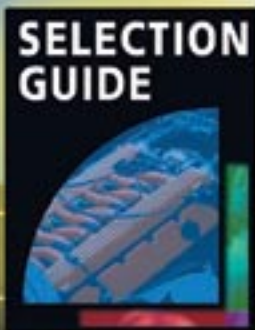
MAGNETIC PARTICLE EQUIPMENT



SELECTION
GUIDE

MAGNAFLUX®

A Division of Illinois Tool Works Inc.



INTRODUCTION

Whether you're testing a small bolt, a large turbine rotor, or anything in between, Magnaflux offers a complete selection of high-quality magnetic particle inspection (MPI) equipment for every application.

Value-engineered and manufactured to meet government and industry specifications, Magnaflux MPI equipment provides many advantages:

- Simple, fast, reliable operation
- Versatility to locate both surface and near-surface defects
- Economical operation for high-volume inspection rates
- Durability for industrial environments
- Little or no size limitations of parts being tested
- No elaborate pre-cleaning of parts is required

For optimum inspection performance, Magnaflux produces and supplies a complete line of materials and accessories. Because we offer a full line of equipment, accessories, and materials, we can easily serve you the customer, and work to satisfy all of your inspection needs. For more information on these products, refer to the last page of this catalog or contact Magnaflux.

TABLE OF CONTENTS

For information about a particular machine, refer to the pages listed below

Introduction.....	ii
Selection Guidelines.....	ii
2000 Series.....	1-7
MD Series.....	2-3
3-Phase Units.....	4-5
1-Phase Units	6-7
CSV Series	8
M Series	9
Demagnetizers	9
Inspection Hood.....	10
Custom Designed Units.....	11
Blacklights.....	12
Magnetic Particle Accessories.....	13
Magnetic Particle Materials.....	13

CHOOSING THE RIGHT EQUIPMENT

Magnaflux wants you to buy the best piece of equipment to suit your needs. If at anytime you need assistance or clarification, feel free to contact the Magnaflux Equipment Group. The equipment group can be reached through our customer service at 847 657 5300. Listed below are several issues you will need to address as you review this catalog.

1) Type of Defect

- a. Surface—if the only defect is open to the surface, Alternating Current (AC) units offer the best, least expensive solution. But on larger parts where more power is needed, a Direct Current (DC) of some form may be a viable solution.
- b. Sub-Surface—In order to locate defects close to the surface or below the surface, Direct Current (DC) is the best choice. Magnaflux offers units with Half Wave DC, One Phase FWDC, and Three Phase FWDC outputs.

2) Part Length

- a. Main line Magnaflux units will accept parts up to 146 inches (371 cm)
- b. Magnaflux custom equipment has handled parts 30 feet long and longer. We work hard to fit your need.

3) Processing Rate

- a. Low processing rates (Approximately one part every 30 seconds) can be processed on our "conventional" equipment. Conventional machines normally require two magnetizing shots with a separate inspection after each shot.
- b. High processing rates can be handled by Multidirectional units. These units offer one shot one inspection on many parts, cutting process time in half. They also have higher levels of technology built in allowing interfaces with automated equipment.

4) Magnetizing Field Strength

- a. Field Strength depends on part size, geometry, and material. Location and type of defect are also factors to determine how much field you will need. Magnaflux units can create 20–20,000 amps of magnetizing current.
- b. Magnaflux offers a free service with our applications library and our applications engineer to help you determine how much magnetic power you will need for a proper inspection. Contact the equipment group through our customer service.

5) Customer Requirements

On occasion, additional customer requirements may help determine the best unit. Quite often specifications are written to require inspections be done in certain ways. These specifications may require AC when surface flaws are the only predicted flaw. If you need help to interpret a specification, feel free to contact us. We have a library for our use containing many of the industry standards.

ANCILLARY EQUIPMENT

Magnaflux offers many standard units to help you process your parts. Inspection Hoods, Conveyor Systems, Demagnetizing Units, and Induced Current Fixtures are a few of the items we offer. These items have proven themselves as products of durability and reliability.

Magnaflux reserves the right to change specifications without prior notice or obligation.

© 2006 MAGNAFLUX, A DIVISION OF ITW

2000 SERIES



The Magnetic Particle Inspection series is both operator and maintenance friendly, with more standard features, increased reliability, ease of use and a longer warranty.

New pushbar design with adjustable sensitivity and operator disable control switch.

- Pushbar activation switches can be adjusted to change operation sensitivity.
- Pushbar operation can be turned off at operator panel.

Ergonomic operator control panel.

- Allows operator easy access for operational adjustments.
- Improved digital meter visibility for operator.

Microprocessor control system.

- RS-232 output for computer interface.
- Simplified control system eliminating complex relay logic circuits and timers.
- Offers expandability for future unit upgrades.
- Advanced technology reduces electrical components and minimizes maintenance.

3 Position rail system.

- Rail can be adjusted quickly to any one of three positions rear, center, or forward to meet specific customer needs and improve operator ergonomics.

Adjustable grill system.

- Allows grills to be configured for any of 3 rail positions.
- Grills are reversible for longer life.

Quick attach hood system.

- Improves hood assembly ease.
- Offers hood controls fully integrated into unit.

Improved coil base.

- New style lock improves bearing life.

Innovative pump system.

- Eliminates all fluid couplings from inside cabinet.
- Eliminates annoying seal failure leaks in cabinet area.
- Allows pump to be removed from tank in seconds for easy maintenance.



Improved pneumatic controls.

- Regulator controls moved forward for easy operator access.

Remote mag control operating system.

- Outlet located at each end of unit to accommodate remote control mag accessories such as our ZB-100F MB blacklight. (MX # 600086)

Dual accessory outlets.

- 115 volt accessory outlets located at each end of unit for blacklights, etc.

Seam sealed panel areas.

- Reduces fluid intrusion into cabinet area from panel areas.

Improved bath drain system.

- Allows unit to be drained easier and faster with larger fittings and higher drain valve location.

Separate contact and coil current control.

- Set contact and coil levels separately.



MD SERIES



The Magnaflux Multi-Directional units are our most versatile standard units. The MD Series offers time savings multidirectional magnetization for finding defects in all orientations with one cycle. The two or three outputs are independently adjustable to balance the magnetic field intensity, and each output offers AC, HWDC or One Phase FWDC output. The user can mix and match current types while adjusting current levels creating virtually infinite combinations for the operator. These combinations allow the machine to be used with a wide range of parts, while the Customer Programmable Settings insure repeatability whether you process the same part every day or once a year. Supervisor Locks keeps stored settings safe from inadvertent variation.

MD-2030

3000 amp HWDC, FWDC, 2500 amp AC Output Capabilities
2 Outputs—Contacts, Flux-Flo® Coils
Voltages Available (208 V or Higher)
Only Available in Standard Size
Standard Type Coil May be Substituted for Flux-Flo® Coils

MD-2060

6000 amp HWDC, FWDC, 5000 amp AC Output Capabilities
2 Outputs—Contacts, Flux-Flo® Coils
Voltages Available (380 V or Higher)
Standard Type Coil May be Substituted for Flux-Flo® Coils

MD3-2060

6000 amp HWDC, FWDC, 5000 amp AC Output Capabilities
3 Outputs—Contacts, Flux-Flo® Coils, 16" ID Auxiliary Coil
Voltages Available (380 V or Higher)
20" or 25" ID Coil May be Substituted for 16" ID Coil

CMD Series

This series of units are the Power Pack versions of the units listed above. The power packs can easily be integrated with custom handling equipment, or used to update old wet horizontal units. They can come with 2 or 3 outputs.

2000 SERIES



Features:

All the features listed for the 2000 Series PLUS

- Integrated Multidirectional Power Supply
- Programmable Logic Controller (PLC) with Graphical Display Interface
- Large, Easy to Read Display with Digital Amperage Readout
- Independent Variable Current Controls with Key Pad Entry
- Visual and Audible Current Assurance Alarm with Automatic Log
- Quick Disconnect Wiring, allows Quick and Easy Maintenance
- 100% Solid State Circuitry
- Fifty (50) Customer Programmable Piece Part Settings
- Automatic Piece Parts Counter
- Security System allowing Password Protection
- Multi-Lingual (English, Spanish, French) Display
- Daily Operator Check Reminders (UV & White Light Intensity, Bath Concentration)
- Five (5) Year Frame and Tank Warranty
- Two (2) Year Parts and Labor Warranty

Options:

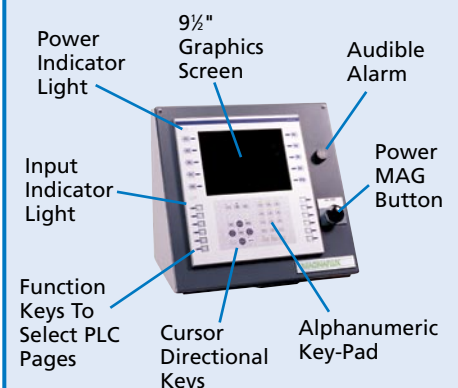
- Magnaflux Inspection Hood (See Page 10)
- Decaying AC or Reversing DC Demagnetization, to reduce the residual field in the test piece to enhance machining, and welding operations.
- Dual Palm Buttons (in lieu of Footswitch) insuring Hands Clear Operation
- Infrared Light Curtains for Operator Safety
- Fifty (50) Additional Customer Programmable Piece Part Settings
- Powered Conveyor with two person inspection booth
- Current Set Points (Over / Under Current Alarm)
- Automatic Bath up to 20" (for Longer Lengths Contact Magnaflux)
- Pulse Feature (CMD only)

Unit Size	Part Length Capacity	Unit Dimensions	Tank Capacity
Standard	41 Inches (104 cm)	89" x 41" x 61"	25 Gal (95 L)
Long	89 Inches (226 cm)	133" x 41" x 61"	37 Gal (140 L)
Extra Long	133 Inches (338 cm)	177" x 41" x 61"	60 Gal (235 L)

GRAPHICAL OPERATOR INTERFACE



- Increase Reliability and Speed
- Reduce Operator Errors
- Write Reports
- Count Parts
- Maintain Cycle Repeatability
- Store and Recall Application Setup



3-PHASE UNITS



The Magnaflux D Series are our most powerful standard wet bench units. They offer maximum magnetization for finding surface and sub-surface defects while using minimal power. The two outputs are independently adjustable to set each magnetic field, circular or longitudinal.

The CD units are power pack versions of our wet horizontal units. Some of the 2000 Series features may not apply.

D-2060

6000 amp 3 Phase FWDC
2 Outputs—Contacts, 12" ID Coil
Voltages Available (208 V or Higher)
Standard Coil May be Substituted for 16", 20", or 25" ID Coil

D-2100

10,000 amp 3 Phase FWDC
2 Outputs—Contacts, 12" ID Coil
Voltages Available (230 V or Higher)
Standard Coil May be Substituted for 16", 20", or 25" ID Coil

CD-2060

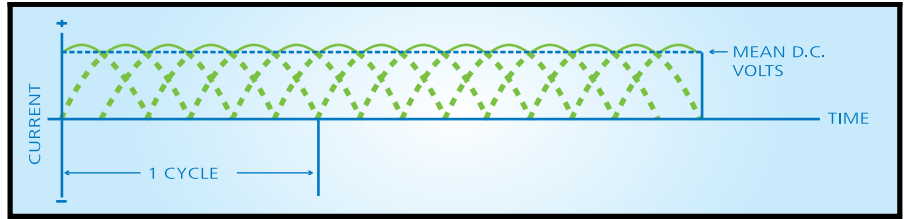
6000 amp 3 Phase FWDC
1 Output—Bus Bars
Voltages Available (208 V or Higher)

CD-2100

10,000 amp 3 Phase FWDC
1 Output—Bus Bars
Voltages Available (230 V or Higher)

2000 SERIES

3PH FWDC



Features:

All the features listed for the 2000 Series PLUS

- Quick Break Function
- Five (5) Year Frame and Tank Warranty
- Three (3) Year Parts and Labor Warranty

Options:

- Magnaflux Inspection Hood (See Page 10)
- Mod 2.5 AC-2500 amps AC Output with Decaying AC Demagnetization*
- Mod 4 AC- 4000 amps AC Output with Decaying AC Demagnetization**
- Mod 6 AC- 6000 amps AC Output with Decaying AC Demagnetization**
- Reversing DC Demagnetization, to reduce the residual magnetism in the test piece to enhance machining, and welding operations.
- Dual Palm Buttons (in lieu of Footswitch) insuring Hands Clear Operation
- Infrared Light Curtains for Operator Safety
- Rotating Contacts (300 lbs capacity)
- Automatic Bath up to 20" (for longer lengths contact Magnaflux)
- Auxiliary Output for External Coil Wraps
- Pulse Feature (CD-2060 & CD-2100 Only)

* Must purchase Demagnetization Option with Mod 2.5 AC

** Only available in Long or Extra Long Frames

Unit Size	Part Length Capacity	Unit Dimensions	Tank Capacity
Standard	54 Inches (137 cm)	89" x 41" x 61"	25 Gal (95 L)
Long	102 Inches (259 cm)	133" x 41" x 61"	37 Gal (140 L)
Extra Long	146 Inches (371 cm)	177" x 41" x 61"	60 Gal (235 L)

QUICK BREAK

When magnetizing parts using three phase FWDC current it is imperative the unit has a properly functioning Quick Break. Simply put, Quick Break is a defined function that measures how fast the magnetic field collapses in an induced (coil) shot. A part being magnetized with a FWDC Induced Current will receive the majority of its magnetism at the beginning and the end of the shot. The level of the induced field is directly determined by the rate of change in the magnetic field. By defining and measuring the collapse rate at the end of the magnetizing shot, we can insure a consistent field is induced into the part under test. A consistent magnetic field is the first step in an accurate repeatable inspection.

1-PHASE UNITS



The Magnaflux A, AD and ADH Series are our most economical standard wet bench units. They offer great particle mobility for finding surface and sub-surface defects, and the versatility of using AC or DC magnetization (except A-2030). The two outputs are independently adjustable to set each magnetic field, circular or longitudinal. Magnetization shot time is adjustable, allowing better development of indications.

AD-2045

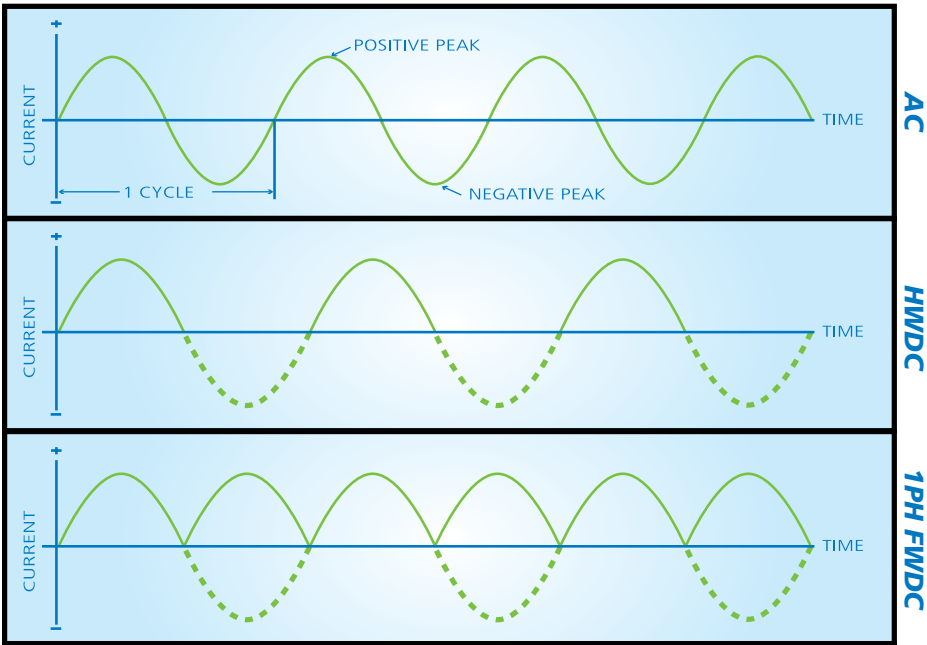
4000 amps AC or 5000 amps 1 Phase FWDC
2 Outputs—Contacts, 12" ID Coil
Voltages Available (208 V or Higher)
Standard Coil May be Substituted for 16", 20", or 25" ID Coil

ADH-2045

4000 amps AC or 5000 amps 1 Phase HWDC
2 Outputs—Contacts, 12" ID Coil
Voltages Available (208 V or Higher)
Standard Coil May be Substituted for 16", 20", or 25" ID Coil

A-2030

3000 amps AC
2 Outputs—Contacts, 12" ID Coil
Voltages Available (208 V or Higher)
Standard Coil May be Substituted for 16" or 20" ID Coil



Unit Size	Part Length Capacity	Unit Dimensions	Tank Capacity
Standard	54 Inches (137 cm)	89" x 41" x 61"	25 Gal (95 L)
Long	102 Inches (259 cm)	133" x 41" x 61"	37 Gal (140 L)
Extra Long	146 Inches (371 cm)	177" x 41" x 61"	60 Gal (235 L)

Features:

All the features listed for the 2000 Series PLUS

- Switch between AC and one phase DC output (except A-2030)
- 100% Solid State
- One Touch Decaying AC Demagnetization
- Five (5) Year Frame and Tank Warranty
- Three (3) Year Parts and Labor Warranty

Options:

- Magnaflux Inspection Hood (See Page 10)
- Dual Palm Buttons (in lieu of Footswitch) insuring Hands Clear Operation
- Infrared Light Curtains for Operator Safety
- Automatic Bath up to 20"
- Rotating Contacts (300 lbs capacity)

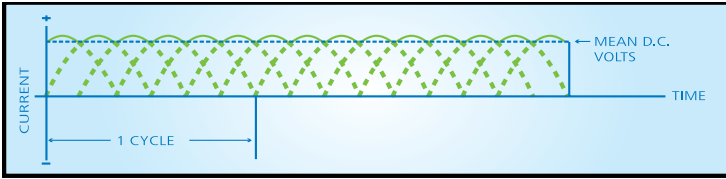


PARTICLE MOBILITY

Particle Mobility is a term used to help explain how the magnetic particles flow across the part under test. The motion of the particles is mostly due to gravity. As the particle flows over the part, the leakage fields from flaws will grab some of the particles and hold them. There is a second form of mobility. As the electrical current ebbs and wanes the particles will vibrate. The vibration is due to the magnetic field swinging on the hysteresis curve. For AC signals the swing is dramatic, in DC fields the vibration becomes less as the signal approaches a true flat constant current, like a battery.

The vibration of the particle allows greater accumulation around the leakage field. This accumulation translates into better, sharper development of indications. AC and Half Wave DC offer better particle mobility because of the "vibration" but One Phase Full Wave DC has higher magnetizing power. Generally, finer flaws will develop better with better particle mobility.

CSV SERIES



3PH FWDC

CSV-20



CSV-10 or -15
STANDARD CONTROL PANEL

Magnaflux understands some parts will not lend themselves to traditional units. Some of these parts are too large, some need special handling, some are better processed dry. The CSV Series offers a solution to the parts that are too large for normal systems. Three independent outputs to help speed processing time and a pulse feature to allow development of larger areas. These units feature 3 phase rectified to FWDC output. The CSV units are the most economical way to create a high magnetizing current with minimal power requirements.

Features

- Three Phase Full Wave DC Output
- Multi Vector Capability
- Three Independent Outputs
- Three Independent Current Controls
- Large Display Meters, one for each output
- Ultra Low Frequency Reversing DC Demag (output 1 only)
- 100% Solid State Circuitry
- One to Four Pulses Selectable
- One to Three Vectors Selectable
- Modular PLC
- Two (2) Year Parts and Labor Warranty
- Five (5) Year Frame Warranty

Options:

- Demag on Circuits 2 and 3
- Remote Mount Operator Interface with Pedestal (Standard on 20,000 amp unit)
 - 50 customer recipes—store and recall settings
 - Key Pad Entry
 - Visual and Audible current Alarms
 - Reminder Alerts—UV, White Light, Bath Concentration
 - Alarm Log
 - Security Passwords

Unit	Output Capacity
CSV-10	10,000 Amps
CSV-15	15,000 Amps
CSV-20	20,000 Amps

M SERIES

Magnaflux understands some parts can not be moved so the magnetizing station needs to be brought to the part. The M Series offers a solution by providing an adaptable mobile unit. These units feature AC or Half Wave DC output.

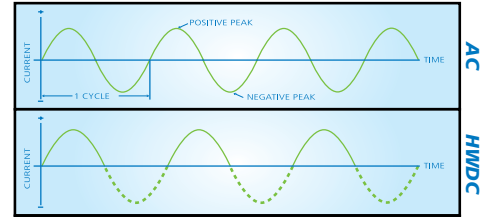
Unit	Output*	Terminals	Rated Load
M-2040	4000 Amps AC/HWDC	Bus Bar	30' of 4/0 cable
M-2060	6000 Amps AC/HWDC	Bus Bar	30' of DOUBLE 4/0 Cable
M-2030 FOR LONG CABLE OUTPUT	3000 Amps AC/HWDC	Bus Bar	90' of 4/0 Cable

Output rating is based on Load Specified

Note: M-2030 FOR LONG CABLE OUTPUT is designed for applications in which the power source cannot be close to the inspection piece. This unit designed to work with long cable lengths necessary for inspecting large parts (i.e. power generator parts).

Features:

- Two heavy-duty fixed casters and two swivel casters with locks for easy, safe movement
- AC/HWDC current selector eliminates the need to switch between bulky cables on the output terminal
- Set current with power pack dial or standard remote control pendant (can be moved up to 15' from power pack)
- Digital amperage meter display (meter now holds the value of the last current shot)
- Pulse function
- Locate defects in any direction using prods, central conductor, or coil (wrap part with 3-5 turns of cable)
- Dimensions: 44" L x 22" W x 39" H
- Many voltages available, single phase
- Infinitely variable current control
- Three (3) Year Parts and Labor Warranty



Accessories:

- #622088 standard prod set, 4 PTL plug
- #622085 dual horizontal prod assembly, 4 PTL plug
- #11307 cable with either end at one end/lug at the other end, 15 feet (457 cm)
- #600004 black light, ZB-100F, portable, 100 watt light with sealed transformer and carrying base for storage of cords (115v/60hz/1ph)

DEMAGNETIZERS

The SB series offer inexpensive, powerful, (8000 amp turn) stand alone demagnetization. Three (3) Year Parts and Labor Warranty. See the table below for standard sizes.

Options:

- Track and Carriage or Table Top for part handling assistance
- 12,000 Ampere Turn Output (50% Higher)
- Ring Down Capacitors (Reduces current draw and slowly decays magnetic field)
- Automatic Triggering (electronic eye automatically starts timed cycle)



SB Unit with track and carriage

Unit	Window Size (width x height)	Window Size (width x height)
SB-1416	14" x 16"	36 cm x 41 cm
SB-1619	16" x 19"	41 cm x 48 cm
SB-2824	28" x 24"	71 cm x 61 cm

INSPECTION HOOD



Magnaflux has worked hard to create a very functional inspection environment while keeping operator comfort and convenience in mind. Our durable curtains darken the inspection area to levels well below the common standards. The easy access to the unit is improved by the front "theater style" curtain mechanism. This same front curtain can be folded in half and hung to allow better ventilation in warmer environments.

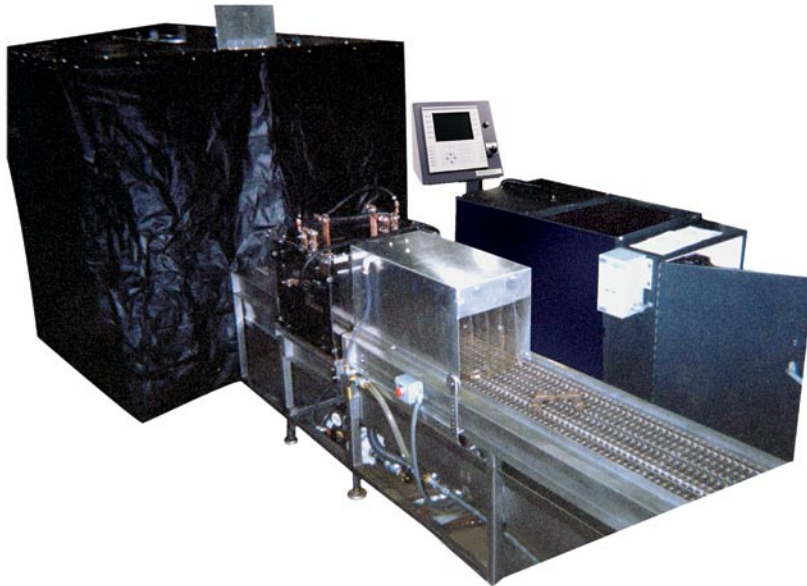
GE Series Hood Features

- ZB-100F Black Light (see page 12)
- Unit Integration Quick Connection to Magnaflux 2000 Series units
- Quick Mount Design
- Easy Access through Front Curtain (Theater Style)
- Adjustable Length Curtain
- Fire resistant curtains
- White Light and Ventilation Fan controlled from operator interface panel

Unit Size	Hood Dimensions Closed	Hood Dimensions Open
Standard	86" x 70" x 90"	86" x 70" x 122"
Long	134" x 70" x 90"	134" x 70" x 122"
Extra Long	178" x 70" x 90"	178" x 70" x 122"

All Dimensions are Length x Depth x Height

CUSTOM DESIGNED UNITS



With safety and ergonomics in mind, Magnaflux will custom design units to fit your assembly line and satisfy your needs.

Processing parts in a repeatable manner with the least effort often requires special units. With over 70 years of experience to draw from, there are few parts Magnaflux has not seen.

Most often we start with an application study. We evaluate your part to determine the best methods of magnetization. Once we know current requirements, we often select a standard power pack. Selecting standard power and controls systems keeps the cost down and the reliability high. Next, Magnaflux evaluates the process and standards to meet the customer's requirements. Communication with all parties involved gives Magnaflux and the customer the advantage.

The advantage for the customer is processing parts in a timely, efficient, and repeatable manner. Magnaflux understands each customer is unique, and each part has different concerns associated with it. Our goal is to help you produce a quality product.



From start to finish, application to materials, Magnaflux is committed to our quality as well as yours.

BLACKLIGHTS

UV LIGHTS

Magnaflux designs our UV lights to meet standard specifications first and foremost. Nevertheless, we do work for operator comfort. Magnaflux formulates and manufactures the materials to fluoresce at peak intensity of 365 nanometers. In turn, we take care to design our lights to have peak output at the same 365 nanometers, while filtering out the nonconforming light.

ZB-100F HAND-HELD, FAN-COOLED BLACK LIGHT

ZB-100F Features

- 100 Watt reflective light source
- Fan cooled, cool to the touch
- Cooler running means longer bulb life
- 4000+ Microwatts/Centimeter Squared @ 15"
- White Light Emission, less than 1 foot candle @ 15"
- Weight of hand Held Light Only 3 Lbs (1.4 kg)
- 15 foot (4.6 m) cord from Lamp to Transformer
- 12 foot (3.7 m) cord from Transformer to Supply end
- Ground Fault Circuit Interrupt protection (110/115V only)
- Available voltages: 110v/50 Hz, 115v/60Hz, 220v/50Hz, 230v/60 Hz



ZB-100 F MB—MAG SHOT BLACK LIGHT

All the Features of the ZB-100F PLUS a button conveniently located in the handle, this button is ready to integrate into any of our standard MPI units to trigger the magnetizing current. Or, we can assist you in integrating the new black light into existing equipment. The black light can start rinse cycles on Zyglo Systems, act as a remote trigger on power packs, used to activate touch up developer, or to prompt a parts counter. The possibilities are only limited by the user.

ZB-150 FSB SELF-BALLASTED BLACK LIGHT

ZB-150 FSB Features

- 150 Watt, self ballasted, reflective light source
- Fan cooled, cool to the touch
- Cooler running means longer bulb life
- 4000+ Microwatts/Centimeter Squared @ 15"
- White Light Emission, less than 1 foot candle @ 15"

- Weight of Hand Held Light Only 4 Lbs (1.9 kg)
- 12 foot (4.6 m) cord from Lamp to plug
- Ground Fault Circuit Interrupt protection
- Available voltages: 115v/60Hz

Uses 150w Self-Ballasted Replacement Bulb



MAGNETIC PARTICLE ACCESSORIES



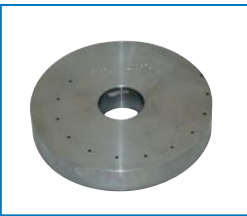
#18948 BRAIDED PAD WITH V-BLOCK

- Heavy copper braid over neoprene base
- Molded-in V-block centers and supports test parts
- Flexibility provides contact over greater surface area and helps to protect parts from arcing
- Reversible—two wear faces



#519296 SELF BALLAST REPLACEMENT BULB

- 150W Built-in ballast bulb
- Replacement bulb for our NEW ZB-150F SB



#159999 TEST RING WITH CERTIFICATION

- Drilled holes simulate subsurface discontinuities
- Form surface indications at various magnetizing current levels
- Meets ASTM E 1444 requirements
- Certified to AS 5282



#8493 CENTRIFUGE TUBE

- 100 ml, 0–1.0 ml in 0.05 increments
- For use with #14A, #14AM and #20B MAGNAGLO fluorescent materials

#1837A CENTRIFUGE TUBE STAND

- Safely holds centrifuge tubes when mixing bath concentrations



#519630 QQI (Quantitative Quality Indicators)

- QQI (Quantitative Quality Indicators) are Magnetic Particle Test Pieces with Artificial Defects



#105645 CALIBRATED FIELD INDICATOR, 20 GAUSS

- Accurate to ± 0.5 gauss. Scale range of 20-0-20

#505056 CALIBRATED FIELD INDICATOR, 10 GAUSS

- Accurate to ± 0.5 gauss. Scale range of 10-0-10



#148335 QUICK BREAK TESTER

- Quickly and accurately confirms function status of "quick break" circuitry in 3-PH FWDC Magnetic Particle Units



#507320 MEDIUM BASE BULB, 100 WATT

- 100 watt Spotlight bulb, replacement for ZB-100 and ZB-100F models and all other MAGNAFLUX 100 watt lamps made after May 1982



#519227 SMOOTH FILTER GLASS

- For use with ZB-100 and ZB-100F models and all other 100 watt lamps



#506249 UV ABSORBING SPECTACLES

- Reduces eye fatigue from exposure to UV light emission

MAGNETIC PARTICLE MATERIALS

MATERIAL CONSIDERATIONS: WATER BATH VERSUS OIL BATH

Advantages to Oil Bath

- Stable concentration since evaporation is negligible
- Essentially no electrical conductivity
- Excellent wetting
- No detrimental foaming
- Capable of some rust inhibition of processed parts
- Simple bath maintenance

Advantages to Water Bath

- Low Cost (includes water conditioner)
- Nonflammable
- No exhaust required
- Odorless
- More rapid forming of indications
- Faster settling test
- Less effect on skin than oil bath

OIL BATH ONLY



CARRIER II OIL VEHICLE
55 gallon or 20 gallon drum, *for oil bath only*

OIL & WATER BATHS



14A WET METHOD MAGNETIC PARTICLES
Six 1 lb. bottles, *for oil or water baths*

WATER BATH ONLY



14A REDI-BATH
Six 27 oz. bottles, *for water bath only*

MAGNAFLUX FACILITIES

DEWITT, IOWA

- Material Manufacturing
- Penecert Testing
- TAM Recertification
- Equipment Manufacturing
- Accessory Manufacturing
- Calibration



GLENVIEW, ILLINOIS CORPORATE HEADQUARTERS

- Sales/Marketing
- Application Studies
- Customer Service

MAGNAFLUX[®]
A Division of Illinois Tool Works Inc.

3624 West Lake Avenue
Glenview, IL 60026
tel (847) 657-5300
fax (847) 657-4791
www.magnaflux.com
info@magnaflux.com

MAGNAFLUX
Faraday Road
South Dorcan Industrial Estate
Swindon, Wiltshire, SN3 5HE
ENGLAND
tel +44(0)1793 524566
fax +44(0)1793 619498
www.magnaflux.co.uk
sales@magnaflux.co.uk

ITW CHEMICAL PRODUCTS
Ave. Jorge Alfredo Camasmie,
670, Embu
Sao Paulo, 06816-050
BRAZIL
tel 55-11 4785-2660
fax 55-11 4785-2677
www.itwchem.com.br
sales@itwchem.com.br

ITW SIGNODE INDIA LIMITED
Plot nos. 34-37, Phase 2, IDA,
Pashamylaram, Medak District
502 307. A.P.
INDIA
tel 91-8455-226574, 226337,
226089
fax 91-8455-226336
cheminfo@itwsignode.co.in