



**YOUR PARTNER FOR  
NON-DESTRUCTIVE  
TESTING SOLUTIONS**

**SINCE 1996**



# PRODUCT CATALOGUE



# Multi Directional MPI Machines

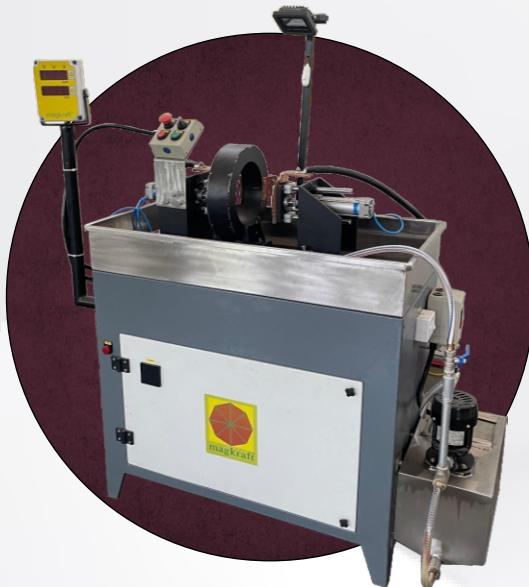
## Vertical Machine for fasteners



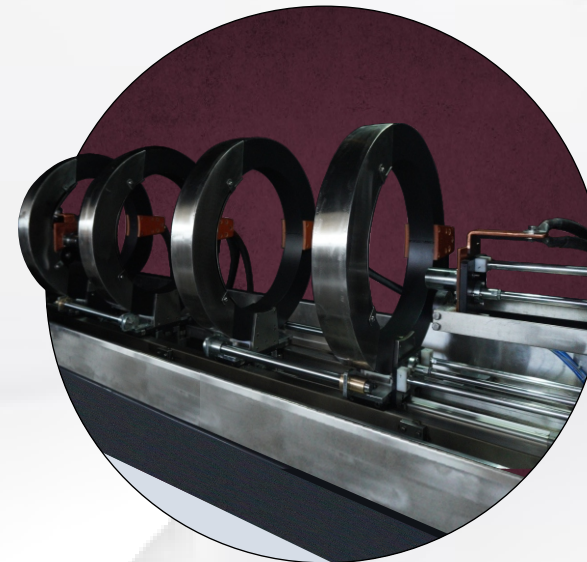
## Machine for Large components



## Machine for Small components



## Machine for Long Components



# Multi Directional MPI Machines

This machine produces multi-directional magnetization to detect defects in all orientations in a single shot. This is different from the combined magnetization shot used in conventional machines, which is not as per ASTM standards. This is achieved by combining two magnetization vectors, one generated by passing current through the job & other by one or more encircling coils.

## Features

- ✓ Automatic Parts Counter.
- ✓ Reverse agitation bath system.
- ✓ Digital, Stepless current control.
- ✓ Steady Rollers for job placement.
- ✓ Both sides have pneumatic clamping.
- ✓ 7 Inch Touch Screen for control & display.
- ✓ Stainless Steel liquid storage tank and collection tray.
- ✓ Operator controlled an automatic double shot.
- ✓ Continuously movable tail-stock with cam lock.
- ✓ Standard make PLC & HMI. Easily serviceable.
- ✓ AC to DC changeover uses solid-state circuitry.
- ✓ PLC-Based Control. Automatic Cycle for faster testing.
- ✓ 1000 Program memory to store settings for different parts.
- ✓ Heavy-duty transformers. No need to wait between two shots.
- ✓ Integrated decaying-AC demagnetization with automatic control.
- ✓ Feedback loop-based current control with current failure indicator.
- ✓ Independent transformers for Circular and longitudinal magnetization.

## Specifications

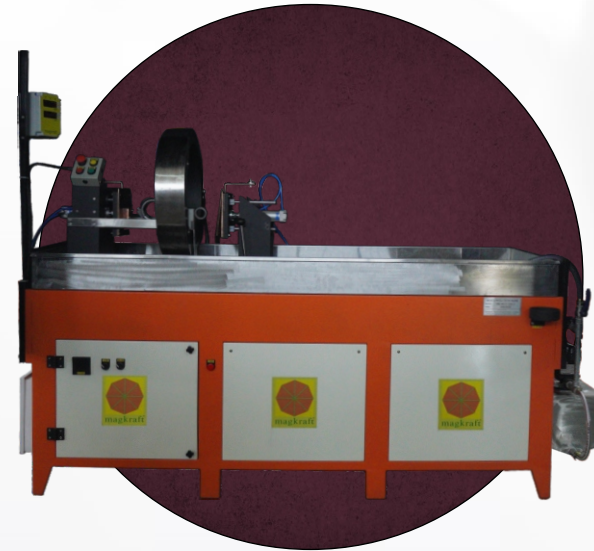
Headshot Current Capacity	Models starting from 1000A going up to 5000A
Maximum Part Length Accommodation	Starting from 200mm going up to 1600mm
Maximum Part Diameter	Starting from 100mm going up to 250mm
Maximum Part Weight	450Kg
Storage Bath Capacity	25 L
Shot Time	Adjustable from 0.5 sec 2.0 sec
Power Supply	3 Phase 3 Wire 415V AC/220V AC
Frequency	50Hz or 60Hz
Pneumatic Pressure Required	4-6 Kg/cm <sup>2</sup>
Coil Diameters	200mm, 300mm, 400mm, 450mm, 500mm
Control Voltage	24V DC
Touch Screen Display Size	7" Diagonal

# PLC Controlled MPI Machines

## Machine for Gears



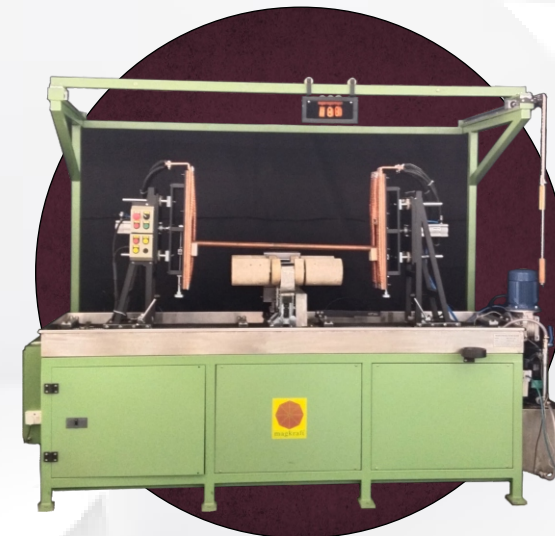
## Machine for Long components



## Machine for Fasteners



## Machine for Coil Springs



# PLC Controlled MPI Machines

Our PLC Controlled Magnaflux MPI Machine test bench units go a step ahead of conventional machines for MPI inspection. They are used across a wide range of industries, such as aerospace, marine automotive, oilfield equipment & railways, for the detection of surface & subsurface defects. These benches are two vector machines. A circular magnetic field is generated by clamping the part between the headstock & tailstock & passing a current through the part. Parts with a central bore can be tested using the threaded bar method. A longitudinal magnetic field is generated changeover is accomplished by solid-state circuitry.

## Features

- ✓ Reverse agitation bath system.
- ✓ Stainless Steel collection tray.
- ✓ Steady Rollers for job placement.
- ✓ Digital, stepless current control.
- ✓ Both sides have Pneumatic clamping.
- ✓ Stainless Steel liquid storage tank.
- ✓ 7 Inch Touch Screen for control & display.
- ✓ Operator controlled an automatic double shot.
- ✓ Continuously movable tail stock with cam lock.
- ✓ PLC-Based Control. Automatic Cycle for faster testing.
- ✓ Error displayed on a touch screen for easy diagnostics.
- ✓ 50 Program memory to store settings for different parts.
- ✓ Heavy-duty transformers. No need to wait between two shots.
- ✓ AC to DC changeover for headshot uses solid-state circuitry.
- ✓ Integrated decaying-AC demagnetization with automatic control.
- ✓ Feedback loop-based current control with current failure indicator.
- ✓ Independent transformers & current control for Circular & Longitudinal magnetization.

## Specifications

Headshot Current Capacity	Models starting from 2000A going up to 6000A
Maximum Part Length Accommodation	Starting from 600mm going up to 1500mm
Maximum Part Diameter	Starting from 100mm going up to 300mm
Maximum Part Weight	300Kg
Storage Bath Capacity	25 L
Shot Time	Adjustable from 0.5 sec 2.0 sec
Power Supply	3 Phase 3 Wire 415V AC/220V AC
Frequency	50Hz or 60Hz
Pneumatic Pressure Required	4-6 Kg/cm <sup>2</sup>
Coil Diameters	300mm, 400mm, 500mm
Control Voltage	24V DC
Touch Screen Display Size	7" Diagonal

# MPI Machine for Aerospace parts

These machines are suitable for the detection of surface & subsurface defects in aerospace parts. These machines comply with ASTM E1444 & E709.

## Features

- ✓ AC Drive for Pump Control.
- ✓ Reverse agitation bath system.
- ✓ Stainless Steel collection tray.
- ✓ Steady Rollers for job placement.
- ✓ Digital, stepless current control.
- ✓ Both sides have Pneumatic clamping.
- ✓ Stainless Steel liquid storage tank.
- ✓ 7 Inch Touch Screen for control & display.
- ✓ Standard make PLC & HMI. Easily serviceable.
- ✓ Operator controlled an automatic double shot.
- ✓ Continuously movable tail stock with cam lock.
- ✓ AC to FWDC changeover uses solid-state circuitry.
- ✓ PLC-Based Control. Automatic Cycle for faster testing.
- ✓ 50 Program memory to store settings for different parts.
- ✓ Error displayed on the touch screen for easy diagnostics.
- ✓ Feedback loop-based current control with current failure indicator.
- ✓ Independent current control for Circular and longitudinal magnetization.
- ✓ Integrated decaying-AC demagnetization with automatic changeover to AC.
- ✓ Range Selection switch for enhanced pulse width in low amperage settings.



# Mobile Current Generators

Mobile Power Packs: Electromagnetic Current Generators for AC or HWDC Magnetization.



750-1500 Amp



2000-3000 Amp



4000-8000 Amp

## Features

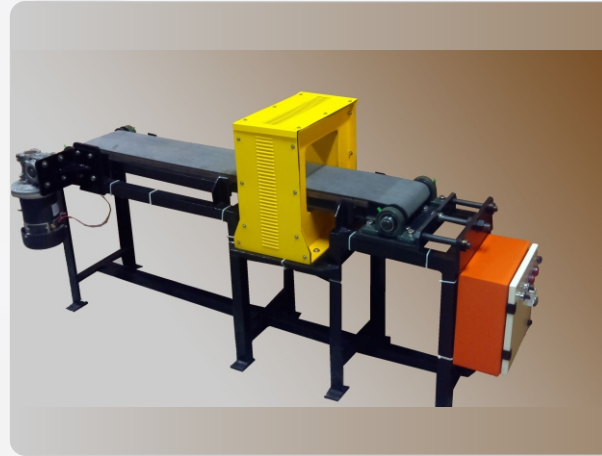
- ✓ Digital, stepless current control.
- ✓ Large digital readout ampere meters with retention.
- ✓ Heavy duty transformer. No need to wait between two shots.
- ✓ Sturdy wheels for movement on the shop floor.
- ✓ AC/HWDC changeover.
- ✓ Integrated decaying-AC demagnetization with automatic control
- ✓ Feedback loop-based current control with current failure indicator.
- ✓ Very few electronic parts. Easily serviceable.
- ✓ Suitable for large casting, Turbines, Steel Industry, Marine, On site Inspections, Aerospace.

# Demagnetizer Machines



## Chute Type Demagnetizer

This demagnetizer has coil opening of 200mm X 200mm. A stainless steel chute passes through the coil & components slide down this chute with gravitational force. It is suitable for small components.



## Conveyor Type Demagnetizer

This demagnetizer uses a belt type conveyor. It is available in three different sizes of coil opening, 200X200mm, 300X300mm & 500X500mm. Conveyor length is different for different coil openings & can be customized also.

Features such as Auto Start, Auto Stop & job counter can be integrated on demand.

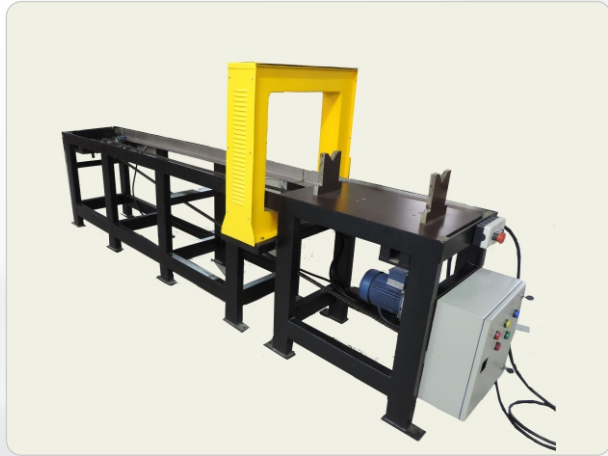


## Trolley Type Demagnetizer

This demagnetizer employs a manual trolley to take the component from one end to the other. Trolley is supported on sturdy wheels. Three different coil opening sizes are available, 200X200mm, 300X300mm & 500X500mm. It is the most commonly used demagnetizer.



# Demagnetizer Machines



## Motorized Trolley Demagnetizer

This demagnetizer uses a motorized trolley to carry the component from one end to the other. The trolley is connected to a chain driven by a geared motor. Three different sizes of coil opening are available, 200X200mm, 300X300mm & 500X500mm.

Optional features such as job counter & auto return can be easily integrated on demand.



## Stationary Type Demagnetizer

This demagnetizer uses electronic circuitry to produce a slowly reducing AC current in the demagnetizer coil. The component is placed inside the coil. The slowly reducing magnetic field demagnetizes the component. Available in coil sizes of 200mmX200mm, 300mmX300mm, 400mmX400mm & 500mmX500mm.



## Reversing DC Demagnetizer

This reversing DC demagnetizer passes slowly reducing & reversing DC current through the component using headshot method. This produces a slowly reducing circular magnetic field in the component thereby demagnetizing it completely. Use of DC ensures that the part is demagnetized not only from the surface but from the core also.

# UV LED LIGHTS

We are one of the leading manufacturers and exporters of UV LED Lights to clients all over the world. These lights are exclusively designed with wavelength concentrated at 365 nm. Some models are mains operated & some models run on rechargeable batteries.

**MK-LED-1500**



**MK-LED-1500-B**



**MK-LED-5000**



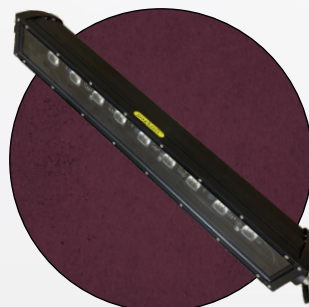
**MK-LED-5000-B**



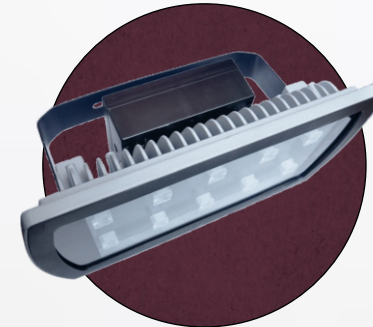
**MK-LED-FL-6**



**MK-LED-FL-9**



**MK-LED-FL-8**



## Features

- ✓ Light Weight
- ✓ Robust Construction.
- ✓ No risk of UV-B radiation.
- ✓ Negligible Heat Generation.
- ✓ Very little Power consumption.
- ✓ Light output concentrated at 365nm.
- ✓ Reaches Full Intensity Within a Second.
- ✓ Sensor based ON/OFF (Increases LED life).
- ✓ Environment friendly, doesn't contain any Mercury.
- ✓ Long Life of LED-No frequent replacement of Lamp.
- ✓ Can Run on battery also. Making it ideal for portable use.
- ✓ Increased Comfort for operator due to lesser weight & heat.

# Accessories for MPI



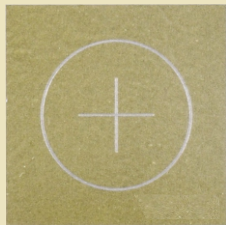
**DIGITAL RFI**

These hall effect digital residual field indicator is used to measure residual magnetic field in components after magnetical particle testing. They are available in two ranges:  
**+ - 30 gauss | + - 50 gauss**  
They are powered by 2 AAA alkaline batteries which can be easily removed and replaced.



**PIE GAUGE**

ASTM PI Field Indicator is used to check the presence and direction of magnetic field. It comes with a non ferrous handle for easy placement on the job. Artificial cracks are generated in an octagonal test piece. Lines which are perpendicular to the magnetic field give indications. Meets Requirements of ASTM E1444.



**QQI SHIMS**

QQI's (Quantitative Quality Indicators) are magnetic particle test pieces with artificial defects used to verify proper field direction and adequate field strength. QQI's are very thin and flexible to conform to the geometry of the test piece. They must be held in intimate contact with the test piece by either tape or glue. Meet Requirements of ASTM E1444.



**COPPER PADS**

We manufacture copper braided contact pads for use in magnetic particle inspection machines. There are two types of pads. Type 1 are fixed on contact plates with screws and are compatible with Magnaflux machines. The other model has provision of hooks, through which it can be hung on the contact plates for easy replacement. These pads can be made as per size of contact plates in your machine.



**KETOS RING**

Used for System Performance Test. Meets ASTM E1444 requirements. Drilled holes simulate subsurface discontinuities. Form surface indications at various magnetizing levels. Comes with a copper central conductor



**CENTRIFUGAL TUBE**

Centrifugal tube also called pear shaped tube is used to measure concentration of magnetic power in the bath. The capacity of this tube is 100ml. The solutions takes around 15-20 minutes to settle down and the powder can be clearly seen at the bottom. It is suited for powders with mixing ratio of 1-10 gms/Litre.

# Eddy Current Testing Instruments

## Single Frequency Eddy Current Machine



## Multi frequency Eddy Current Machine



## Features

**Advanced Eddy Current Technology:** Our Eddy Current testing Machine Instruments utilize the latest in Eddy current testing technology to accurately identify and sort materials based on their hardness and material properties.

**User-Friendly Interface:** Our Eddy Current testing Machine Equipment is designed with the end user in mind, featuring an intuitive interface and clear displays that simplify operation and data analysis.

**Flexible Integration:** The Eddy Current testing Machine are compatible with a wide range of material handling systems, making it easy to integrate into your existing production lines or quality control processes.

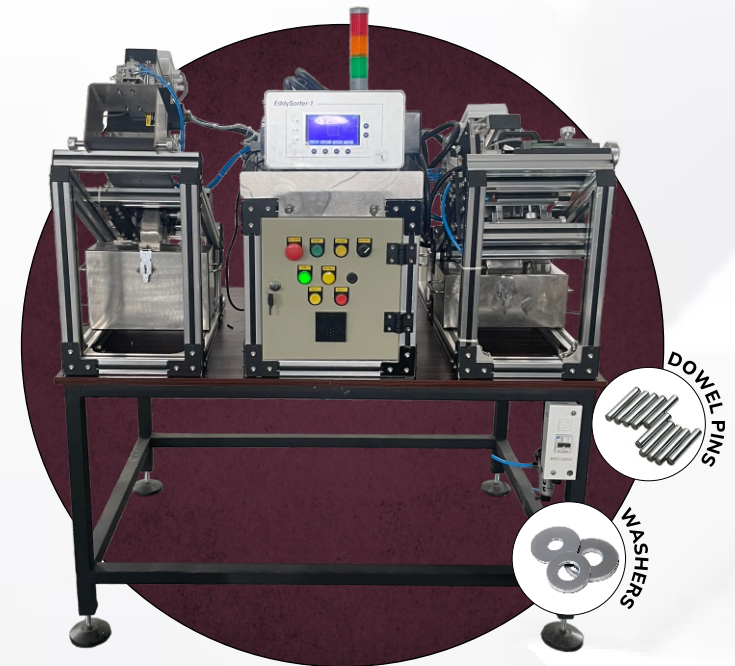
**Customizable Configurations:** Our Eddy Current Machine can be tailored to suit your specific sorting requirements, with customizable options such as adjustable frequency ranges, multi-channel capabilities, and various probe types.

# Automatic Eddy Current Systems

## Dual Station Eddy Machine



## Eddy Machine for Small components



## Applications

- ✓ Hardness based sorting of transmission parts.
- ✓ Hardness based sorting of axles.
- ✓ Hardness based sorting of small shafts
- ✓ Hardness based sorting of washers, bushes and pins
- ✓ Hardness based sorting of fasteners.
- ✓ Surface crack detection in metal tubes
- ✓ Material grade sorting

# Our Clients



# Our Certifications



Recognition Certificate



ISO Certificate

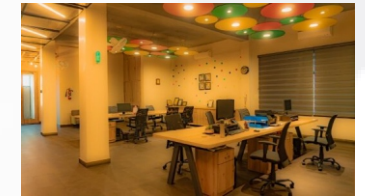


CE Magkraft Certificate

# Our Story

The inception of our voyage into the realm of Non-Destructive Testing was initiated by our visionary founder, Mr. Sunil Bansal, back in the year 1996. This marked the genesis of a remarkable journey that would redefine the standards of quality assessment.

After a significant period of research and development, we embarked on our manufacturing operations in the year 2007. This pivotal step propelled us forward, transforming us into a pioneering force within the industry. Presently, our company stands as a trailblazing manufacturer specializing in the production of cutting-edge Magnetic Particle Inspection machines, renowned as Magnetic Crack Detectors, as well as state-of-the-art Automatic Eddy Current Testing Systems and advanced UV LED lights.



The year 2017 witnessed a momentous expansion of our horizons as we diversified our portfolio by venturing into the realm of third-party inspection services for Non-Destructive Testing. This strategic move was driven by our commitment to offer comprehensive solutions that catered to every facet of quality assurance. As a result of this expansion, we now oversee the inspection of over 7 million components on a monthly basis, underscoring our dedication to upholding the highest standards of quality for the clientele we serve.

## Our Infrastructure

**Located near the city of beautiful Chandigarh, our plant is spread over a covered area of 15000 square feet.**

Within our establishment, we boast comprehensive in-house facilities that encompass a diverse range of capabilities, including sheet metal fabrication, panel wiring, machine assembly, and rigorous testing procedures. Our electronics department operates seamlessly to fulfill the requirements related to circuit boards and associated components. One of the standout pillars of our organization is our in-house, multi-domain design team. This exceptional team is a convergence of experts hailing from various fields, such as non-destructive testing, mechanical engineering, electrical engineering, PLC programming, and electronic design. Their collective expertise ensures that our clients are not just served but truly catered to, with solutions that are not only relevant but also meticulously optimized and custom-tailored. The depth and breadth of our in-house capabilities are a testament to

our commitment to delivering holistic solutions. From the initial stages of conceptualization to the final phases of testing and deployment, we maintain a proactive approach. This approach not only enhances the efficiency of our processes but also guarantees that every facet of our solutions is aligned with the specific needs and aspirations of our clients.

In essence, our establishment is a microcosm of innovation and expertise, where a dedicated team of professionals, combined with cutting-edge facilities, work harmoniously to realize intricate designs and deliver impeccable results. This dynamic integration ensures that our clients receive not only products but also an experience that reflects our unwavering dedication to excellence and customer satisfaction.



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### WE ARE HAPPY TO SERVE YOU

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✉ [sales@magkraftndt.com](mailto:sales@magkraftndt.com) and we'll get in touch shortly.