

Prod-Type MPI Machine

Product Description:

The **Prod-Type Magnetic Particle Inspection (MPI) Machine** is a portable and versatile non-destructive testing (NDT) device designed to detect surface and near-surface cracks in ferromagnetic materials. It is particularly useful for **on-site inspections, irregularly shaped components**, and **weld testing** where traditional bench-type MPI machines may not be suitable.



The machine uses **handheld prods** to apply electrical current directly to the test surface, generating a localized magnetic field. When magnetic particles are applied, defects become visible under proper lighting conditions.

Key Features:

- ✓ **Portable & Lightweight** – Ideal for field inspections and in-service testing.
- ✓ **Handheld Prods** – Flexible application for various part sizes and shapes.
- ✓ **AC / DC Operation** – Suitable for detecting both surface and sub-surface defects.
- ✓ **Variable Current Control** – Allows adjustment for different material thicknesses.
- ✓ **Built-in Timer** – Ensures consistent application of current for reliable results.
- ✓ **High Durability** – Rugged construction for industrial use.

- ✓ **Safety Features** – Includes insulated prods and overcurrent protection.
- ✓ **Compliant with Industry Standards** – Meets **ASTM E1444, ASME Section V, ISO 9934-1**.

Technical Data Sheet:

Specification	Details
Model	Prod-Type MPI Machine
Magnetization Modes	AC / HWDC
Current Output	Up to 3000 A (customizable)
Power Supply	230V / 415V, 50 Hz
Prod Type	Handheld, Insulated
Cable Length	2m – 5m (customizable)
Weight	15 – 20 kg (varies by model)
Cooling System	Air-Cooled
Demagnetization	Optional Manual or Automatic
Particle Application	Dry / Wet Method
Safety Features	Overcurrent protection, insulated prods
Compliance Standards	ASTM E1444, ASME Section V, ISO 9934-1
Customization	Available for special applications

Applications:

- ✓ **Weld Inspection** – Structural steel, pipelines, pressure vessels
- ✓ **Automotive Industry** – Inspection of chassis, frames, and castings
- ✓ **Aerospace Industry** – Non-critical component inspection

- ✓ **Shipbuilding & Marine** – Hull welds, ship structures
- ✓ **Construction & Fabrication** – Checking steel structures for cracks

Optional Accessories:

- ◆ **Portable Power Pack** – For use in remote locations
- ◆ **Dry Powder Applicator** – Enhances visibility of defect indications
- ◆ **UV Light Kit** – For fluorescent magnetic particle testing
- ◆ **Additional Prod Sets** – Various sizes for different applications

Why Choose Our Prod-Type MPI Machine?

- ✓ **Perfect for On-Site Testing** – Portable & easy to use
- ✓ **Fast & Reliable Defect Detection** – High accuracy for ferromagnetic materials
- ✓ **Industrial-Grade Durability** – Built to withstand tough environments
- ✓ **Customizable Options** – Tailored to specific industry needs