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# EQUIPMENT MANUAL MY-3 YOKE RANGE 110V AND 220V





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## 1. Warnings

#### a) General Warnings



#### Danger to life for persons with Cardiac Pacemakers

Magnetic fields can, in some cases, interfere with cardiac pacemakers



#### Warning strong magnetic field

# Danger of Electromagnetic Fields

Strong magnetic fields can have serious health effects.

Do not use this Yoke if you have a pacemaker, insulin pump or other implanted device, you have any metallic implants, you are pregnant or for more than 8 hours a day.



#### **Danger of Electrocution**

Make sure the power cable is undamaged before using the yoke. If the switch cover is defective or if there are cracks in the yoke housing, do not use and return the unit to the manufacturer for repair by qualified service personnel.



Danger of Fire

Testing oils are highly flammable. When using testing oils, ensure that appropriate fire extinguishers are nearby and easily accessible.



**Danger of Radiation Burns** 

When using any UV light system, always follow the instructions in the relevant operating manual.

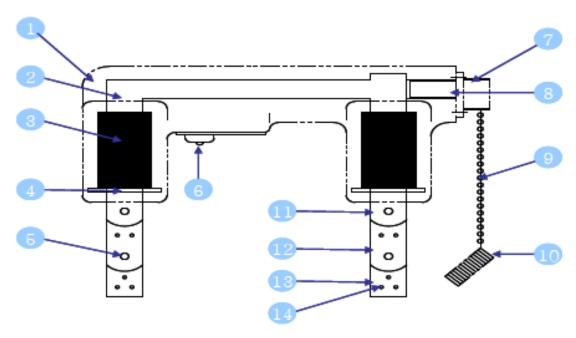
# b) Operational Warnings

- 1. Please keep any electronic equipment away from the MY-3 Yoke during operation. The strong magnetic field can cause come damage to electronic equipment.
- 2. Do not operate the MY-3 Yoke in wet or damp conditions, including in the rain. Water can cause issues with the electric connectors.
- 3. Please stop operating the MY-3 Yoke if you experience an abnormal noise or smell. Turn off the MY-3 Yoke immediately.
- 4. Never move the equipment by using the cable of the MY-3 Yoke. It can be a cause of serious damage. Always pick the Yoke up by the main body of the equipment.

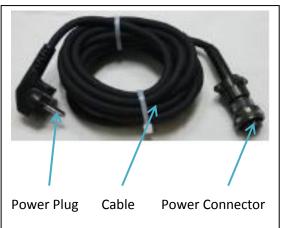
#### 2. Actions Before Use

- 1. Check for damage on the power cable of the MY-3 and the connection to the power source before operating.
- 2. Check if there are any iron particles on the connector. It can be a cause of electrical shorts

#### 3. MY-3 Yoke Parts List



- 1. Rubber Coating
- 2. Body Core
- 3. Coil
- 4. Bobbin
- 5. Wrench Bolt (5x25)
- 6. Micro Switch
- 7. P/cable Connector
- 8. P/cable Connector Housing
- 9. Connector Stopper Wire
- 10. Power Connector Stopper
- 11. Fix Pole
- 12. Middle Pole
- 13. Inspect Pole
- 14. Core Rivet

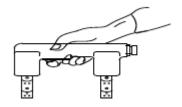


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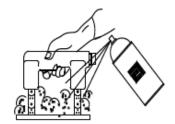
## 4. Operation



1. Connect the connector to main Yoke body and then connect the AC plug to the electric outlet.



2. Place both poles of the MY-3 Yoke on the part to be tested and press the button to achieve the best contact between the part and poles.

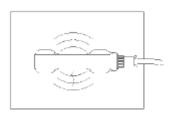


3. On pressing the magnetising switch on the MY-3 Yoke, apply your MPI fluid or powder of choice to the magnetised part on test.



4. For a wider test area, divide the surface of the part and perform several inspections to cover the whole test area.

## 5. Technical – Magnetic Particle Inspection using the MY-3 Yoke



The MY-3 Yoke uses the regular Magnetic Testing method. The two magnetising Coils create a magnetic field through the Yoke Poles and into the test part. A crack that is perpendicular to the direction the magnetic field is flowing in will cause the magnetic field to break its flow and it will create different magnetic fields around the crack.

By adding Magnetic Particle Inspection (MPI) agent such as dry, wet and fluorescent MPI ink to the test area, the iron particles from the agent will gather within the crack and will be easily visible.

The Operator can easily estimate the location, size and width of defects on the part simply by seeing magnetised particles settling in the defect.

# 6. Specification

| Power                   | AC 220V 50/60Hz           | AC 110V 50/60Hz                        |  |
|-------------------------|---------------------------|--|--|
| Current                 | 50Hz: 2.8 A / 60Hz: 2.8 A | 50Hz: 4A / 60Hz: 4A                    |  |
| Lifting Power           |                           | 5.44 Kg                                |  |
| Magnetomotive Force     | 220V : 50Hz: 3,3          | 220V : 50Hz: 3,300 AT / 60Hz: 3,800 AT |  |
| Available Pole Distance | Centre Pole Distance      | 145mm                                  |  |
|                         | Minimum Pole Distance     | 75mm                                   |  |
|                         | Maximum Pole Distance     | 210mm                                  |  |
| Weight                  |                           | 2.3 Kg                                 |  |
| Dimensions              | 182mm(L) X 2              | 182mm(L) X 230mm(H) X 45mm(W)          |  |
| Power Cable             | 1.0 Sc                    | 1.0 Sq x 3 p x 4.5 m                   |  |
| Duty Cycle              | 2 /sec (                  | 2 /sec ON , 2 /sec OFF                 |  |