EDDY CURRENT SORTER MODEL : ECS-M 0011

In all industries mix-up of metals in the form of raw, semi finished or finished products may occur in transit, storage or at different stages at manufacturing processes and is segregated by chemical, spectro analysis or metallurgical tests. When proper coils are selected, Eddy Current Sorter is used for segregation of ferrous and non-ferrous metals without even a scratch on job or when bulk materials having external similarity are mixed up. Eddy Current Sorter can segregate metals of all forms and conditions when proper

coils are selected. widely used for up of metals in the tubes, rods, bolts, components, forged types of metal a u t o m o b i l e treatment shop,



This instrument is segregation of mixedform of bars, pipes, nuts, gears, machined parts and various components in industries, heat fastener industries,

forging unit, metal processing unit, fertilizer, refinery and petrochemical projects & also final inspection in quality control department.

Description :

Eddy Current Sorter is sturdy, light weight and portable test unit with a adjustable handle. Powered from single phase, 220V a.c., 50 Hz source. The unit offers both sine wave and ellipse display. A ten (10) position rotary band switch (frequency from 10 Hz to 10000 Hz), two threshold level controls to set upper and lower limits of acceptance, a phase control to adjust the 10° to 170° phase of the sine wave. Three level indicators (Red for upper rejection, Green for acceptance and Blue for lower rejection) to indicate three different groups according to limits of acceptance set, buzzer is provided at rejection mode to alert the operator. An additional indicator (amber) to indicate improper setting or internal fault of instrument by blinking. This machine is for quick fault identification and easy maintenance and has all the components with reliability durability and perfect functioning.

How it works?

When a metallic object is placed within or adjacent to a coil energized by alternating current, eddy currents are generated in it due to electromagnetic induction. If two metal objects having identical dimensions differ in metallurgical conditions, magnitude and phase of eddy currents generated in them will also differ. Eddy current sorter compares this difference electronically & it is projected on Cathode Ray Tube. Another logical circuit also compares this difference and shows a indication on LEDs. Thus the test objects can be sorted out.

Technical Specification :

Input Supply	:	Single Phase, 230V AC, 50 Hz
Power Consumption	:	40 Watts (approx)
Dimension (L X W X H)	:	450 mm x 340mm x 160 mm
Screen (monitor) Size	:	70mm x 65mm
Mode of Operation	:	Sine / Elipse both mode.
Receptacle	:	For external remote alarm & indication
Test Frequency	:	10 Hz to 10000 Hz in ten steps
Sensitivity	:	Increasing in five steps.
Phase Control	:	to adjust sine wave at 10° to 170°
Threshold I & II	:	to control upper limit & lower limit respectively
Bridge Volt	:	Increasing the bridge volt in five steps
Coil Balance	:	to balance the Coil impedence
Bridge Balance	:	to control unbalance impedence.
Gain Control	:	Low to High gain amplification for test
		sensitivity.



REAR VIEW OF EQUIPMENT



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