OPTYTECH ENGINEERS
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MC-025_VEGETABLE METAL DETECTOR MC

METALTRAP SS - GF- 100

OPTYTECH ENGINEERS

4356 – PAHSE- 3 ROAD NO – E END DARED
JAMNAGER – GUJARAT - 361005 – INDIA
sales@optytechdryers.com
optimy@rediffmail.com
+91- 9227733535 / +91- 07567869495

APPLICATION

This Machine is specifically uses for metal part removal for any food product.
The working principle is i.e. 'PRIMARY' coil carries high frequency sinusoidal voltage which generates steady electromagnetic field inside Metal Detector Test coil aperture. The Pick-up i.e. 'SECONDARY COILS' Which are electronically balanced, sense the change in the electromagnetic field by a moving metal. With the help of Phase Sensitive Detection, good detection sensitivity is achieved for all types of Metals i.e. 'FERROUS', 'NON-FERROUS' and S.S. metal particles.
Small signal change in the Secondary Coils is amplified with large electronic circuit gain. Signal is further filtered & processed with digital circuits. Signal is compared with the set 'Defect Threshold'. If signal level crosses the set threshold level, signal is indicated as 'DETECTED' on 'REJECT LED. The same is also displayed on LCD Display, also 'AUDIOALARM' is given & 'REJECT RELAY' is activated which in turn operates 'REJECTION MECHANISM' to reject Metal Contaminated product. Rejection quantity of the product can be optimized by precise Delay settings.

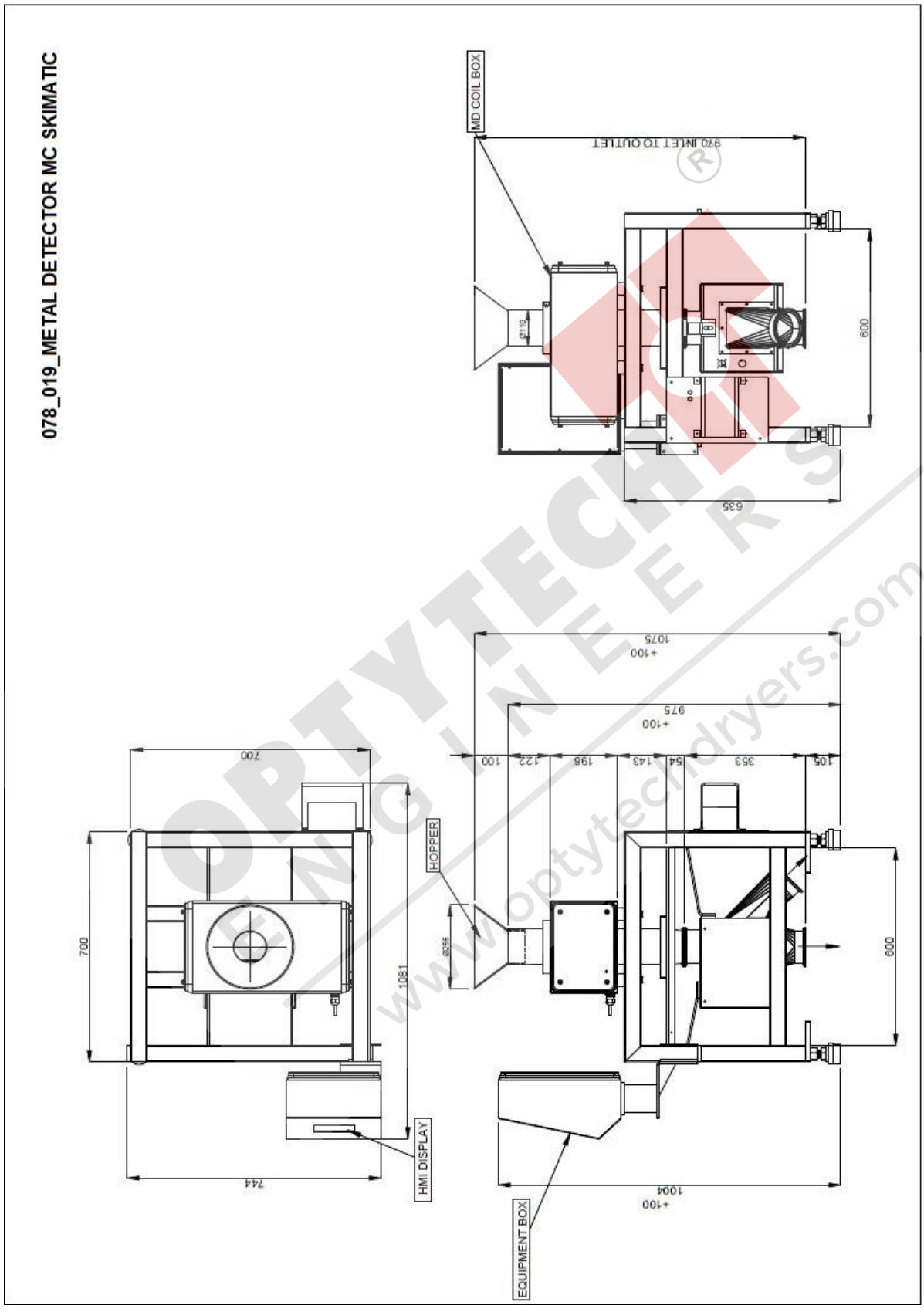
MODEL-SS-GF-100_TECHNICLE SPECIFICATION		
1	Application for	Dried Garlic cloves
2	Installation type	Online
3	Flow rate	500 – 600 Kg/hr
4	Connectivity	USB port & Ethernet port for Modubus TCP/IP PLC connection.
5	Aperture size	Dia Ø 100 mm
6	Display	4.5" HMI
7	Structure MOC	SS 304 matt finish
8	Utility	230 V / 1 Phase / 50 Hz
9	Required air pressure	6 bar pressure
10	Sensitivity	Fe – 0.8mm, NFe – 1.0 mm, SS – 1.2 mm
11	Rejection method	Flap type rejection mechanism

MOC DETAILS & FEATURE		
SR	**COMPONENT**	**MOC / BRAND DETAILS**
1	Input Hopper & material feeding	SS304 & food Grad material.
2	Metal Detector Coil	Body made of SS 304 eternal electricals are made as per standard copper wading with stiff housing.
3	Machine Frame	Made of SS304 pipe & plats with mountings.
4	Inlet / Outlet Hoppers	Finish product good product Outlet is made of SS304 rejected false Material came out through pneumatically Makenzie waste outlet hopper.
5	Control Panel	Control Panel made of Body is SS304 integrated with all electronic Components.

FEATURES	
1	Extremely Super Sensitive detection for all type of metals
2	4.5" HMI Display / 7" Touch Screen
3	Auto Product Tracking
4	Validation using prompt
5	Rejection with Fail safe mechanism
6	Statistical Data with event time stamping
7	Digital Gains and Filters for enhanced sensitivity
8	Phaser Display to analyze type of metal contamination
9	Auto setting facility
11	Sample E- signature
12	Continuous online self check monitoring system
13	Digital control and signal processing
14	Set parameter data retention on loss of power
15	Buzzer on detection of metal contamination
16	Flap type Rejection mechanism / floating relay contact
17	Real X-Y plot / Numerical + graphical display
18	Live metal can be determined as ferrite or non-ferrite
19	5 Year Batch data storage
20	SCADA / IIoT connectivity
21	Multilevel password
22	Reject Time Stamping

PREVENTIVE MANTANCE	
	Caution:
-	During Opening or closing the unit for maintenance work, or change of parts or components.
-	If a measurement, troubleshooting or an adjustment is unvoidable, this work must be done by a specialist, who is familiar with the risk involved.
	In case of any fult, check the following:
1	Disconnect the test head.
2	Check mains voltage at terminals namely L,N,E on terminal strip provided in the instrument. This voltage should be 230 VAC
3	check DC supplies at both SMPS output terminals with reference to respective grounds.
	Check if any loose connections in the system.
	SMPS 1 O/P : +12V, -12V, +24V, +5V, -5VDC
	SMPS 2 O/P : +24V, +5VDC
	If any of these voltages are not there,check loose connection if any.
	Press all respective connectors & check, then replace respective SMPS.
4	If all voltages are OK, then connect test coil.
	Check DC voltages in both SMPS once again.

SPARE PART LIST (EXCLUSION - EXTRA COST)				
SR	**PART**	**SPECIFICATION**	**PRICE**	**NOS**
1	PCB V9	MDMB 2378		1
2	PCB LPC2378	Program Chip		1
3	PCB	SQDRVPAPSD- 15 / SNDRVPAPSD- 15		1
4	PCB TEPL	MD- PREAMP-04		1
5	PCB TEPL	MD PRIME POTCORE		1
6	SMPS	RQ-50D , RD 35B		1 + 1
7	DISPLAY UNIT- HMI	Model- MT 8050 series, Size- 4.3 inches		1



SCHEMATIC DIAGRAM