इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

SAMEER

Tec-Verse 2026
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SMART WAREHOUSES WITH APPLICATION OF FRONTIER EM & ELECTRONICS BASED TECHNOLOGY



- PRECISION GRAIN MANAGEMENT SYSTEM
- OPTIMIZED FOR QUALITY ASSURANCE

INDIGENOUSLY DEVELOPED SYSTEMS

WEIGHT MEASUREMENT CONVEYOR

Precision weight measurement conveyor for accurate grain monitoring





MOISTURE MEASUREMENT CONVEYOR

Cutting-edge moisture measurement conveyor for grain quality assurance

RF DRYER

Precision Treatment using High-Power RF Dryer for Wastage Reduction



SOCIETY FOR APPLIED MICROWAVE ELECTRONICS ENGINEERING AND RESEARCH
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ABOUT SYSTEM

Revolutionizing Grain Storage in India

In a nation where grain preservation is paramount, our cutting-edge technology is here to make a difference. High moisture, insects, rodents, and fungi have been causing significant grain losses in Indian warehouses. Our solution is simple yet powerful. Grain sacks are received, processed, and segregated based on moisture content, ensuring optimal storage conditions. Sacks falling outside the desirable moisture range undergo treatment with our high-power RF system, safeguarding your grains and reducing wastage. Welcome to a new era of grain preservation.

SYSTEM SPECIFICATIONS

Control System	User friendly PLC Based Control
Line Power	3 Phase, 415 VAC, 50 Hz
Moisture Measurement Range	6% to 30%
Weighing Scale Capacity	600 Kg

KPIs

ACCURACY
Ensures precise moisture & weight measurements

EFFICIENCY
Efficiently reduces moisture content using RF technology

RFID INTEGRATION
Enhanced traceability with RFID tagging

ALERTS
Real-time alerts for out-of-range grain quality

USER-FRIENDLY
Easy-to-use PLCbased control system

VERSATILITY
Suitable for various grains

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SYSTEM USP

U
- **PRECISION GUARANTEED** — Accurate moisture & weight control for topquality grains.
- **MOISTURE MANAGEMENT** — Efficiently reduce moisture content, minimize spoilage.

S
- **USER-FRIENDLY CONTROL** — Anyone can manage grain quality with ease.
- **STAY INFORMED** — Instant alerts ensure grain quality is always on track.

P
- **ENHANCED TRACEABILITY** — RFID tagging for easy tracking and data access
- **ADAPTABLE SOLUTION** — Perfect for diverse grain storage needs.

Applications



MILLERS



GRAIN STORAGE INDUSTRIES



DAIRY PRODUCTS INDUSTRIES



FOOD PROCESSING INDUSTRIES



DAIRY PRODUCT INDUSTRIES

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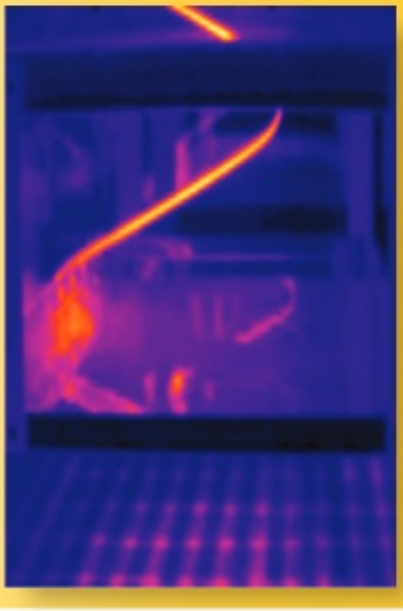
VACUUM ASSISTED RADIO FREQUENCY DRYER SYSTEM

TECHNICAL SPECIFICATIONS

RF POWER	25 kW
FREQUENCY	27.12 MHz
PRESSURE	100 to 1013 mbar
ELECTRICAL SUPPLY	415 ± 1% V; 50 Hz ; 3 Phase





FEATURES

- Radio Frequency Heating assisted with Vacuum drying
- Hot air pre treatment of the product in Vacuum available which saves energy
- Cold water circulation in a jacketed piping on the vacuum chamber
- Technology helps in retention of critical volatile substances in the product

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