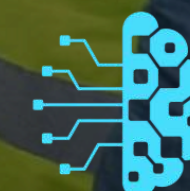




VERACON AUTOMATION

The mind behind the machines

Electrical & Automation Engineering
Industrial Machines • Control • Integration • Safety



VERACON
AUTOMATION



About VERACON

Reliable. Scalable. Industrial automation Solutions That Power Progress

VERACON specializes in delivering advanced electrical and automation systems designed for modern industrial machinery.

Our solutions combine high-precision engineering, intelligent software, and robust electrical infrastructures to create environments where machines operate with stability, accuracy, and efficiency.


We approach every project with the belief that automation is not simply about controlling machines – it is about designing ecosystems where power, logic, and safety work together as one cohesive structure.

This philosophy allows us to support industries in optimizing productivity, improving quality, and reducing operational risks.


Our Engineering Philosophy

At VERACON, automation is built on four pillars:


Precision

 Every element of our systems — from the smallest sensor to the largest MCC panel — is selected to ensure accurate measurement and repeatable performance.


Reliability

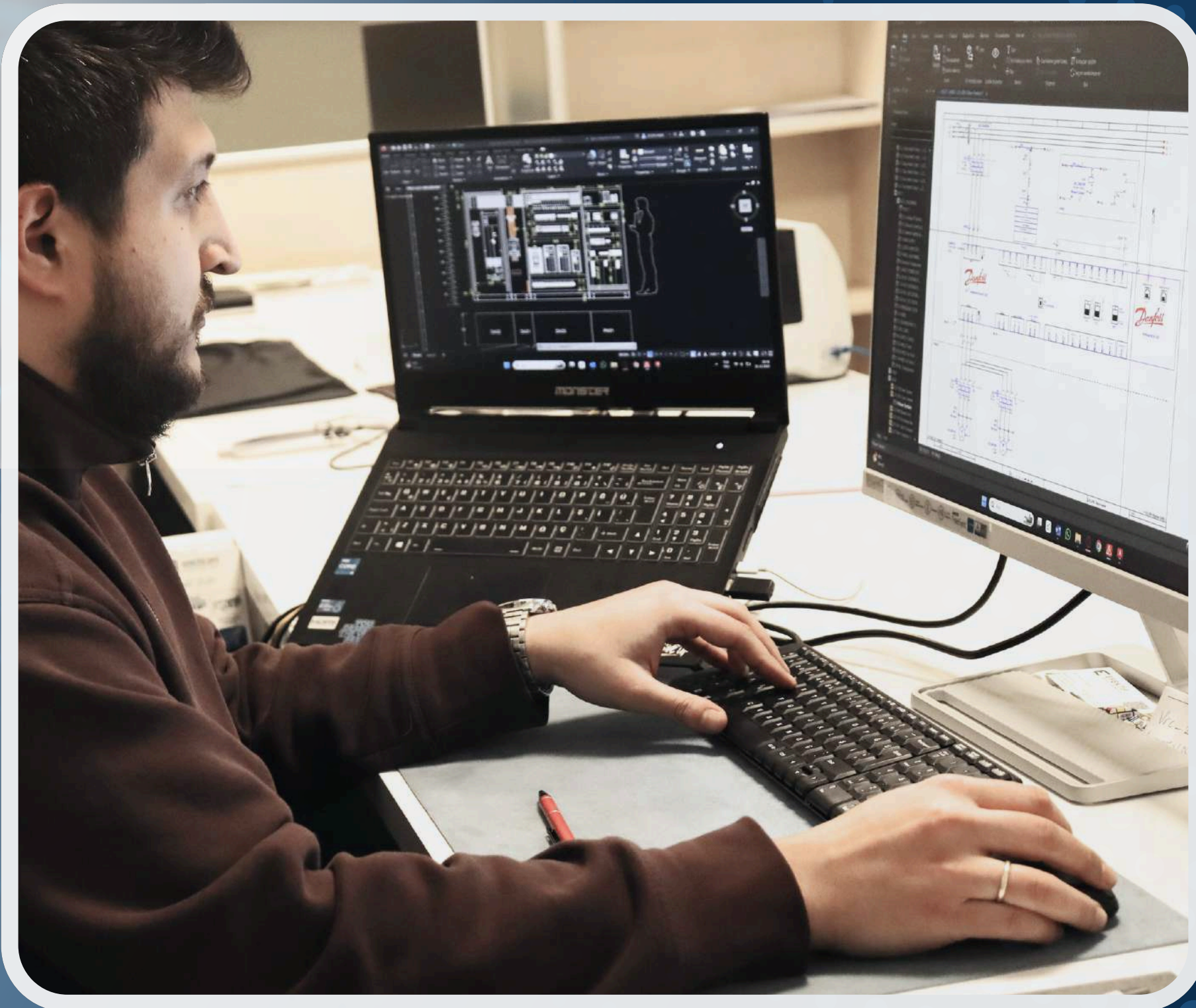
 We design systems that maintain consistent operation despite environmental challenges such as dust, vibration, temperature variations, or heavy loads.

Intelligence

 With adaptive control logic, advanced diagnostics, and modern interfaces, machines gain the ability to self-adjust and report their conditions clearly.

Safety

 Machine protection, operator safety, and energy control are integrated into every design, ensuring secure and stable operation at all times.



Industrial Machine Automation

Modern industrial environments require machines that think, react, and adapt.

VERACON provides automation architectures that coordinate machine behavior with unmatched precision:

- Closed-loop control strategies
- Parameter-based operation modes
- High-speed logic processing
- Fault-resistant wiring and electrical distribution
- Real-time data acquisition

Our systems monitor each part of the machine continuously, adjusting performance according to process demands and ensuring that output remains consistent throughout the entire production cycle.



Sectoral Solutions: Building Materials & Powder Processing

Gypsum Plant Automation Integrated management of crushing, calcination, and separation processes.

- Calcination Control: Independent PID loop management for multi-zone kiln temperatures and burner modulation for consistent product stability.
- Mill Load Control: Dynamic optimization of feed-rate based on mill main motor current and acoustic monitoring.
- Hot Gas Generator: Proportional damper and fan control to maintain precise process air temperatures.

Sectoral Solutions: Building Materials & Powder Processing

Plasterboard Production Line Automation Synchronization and mixing precision in high-speed production lines.

Master-Slave Synchronization: Millisecond-level speed matching between forming line, knife, and dryer conveyors (Drive-to-Drive communication).

Mixer & Dosing: Continuous dosing of gypsum, water, and additives indexed to line speed, ensuring consistent density without grammage fluctuation.

Rotary Shear Control: Encoder-based high-speed cutting algorithms for precise board length accuracy.

Sectoral Solutions: Building Materials & Powder Processing

Lime Plant Automation Robust process control for vertical and rotary kilns in harsh environments.

- Kiln Pressure & Draft Management: Stabilization of negative kiln pressure via precise control of exhaust fans and dampers.
- Stoichiometric Combustion: Precise air/fuel ratio adjustment and thermal profile monitoring to achieve desired lime reactivity.
- Charging & Discharging Logic: Anti-jamming loading/unloading algorithms that balance kiln level and material flow.

Sectoral Solutions: Building Materials & Powder Processing

Dry-Mix / Mortar Plant Automation Facility management focused on recipe flexibility and contamination prevention.

- Advanced Recipe Management (Batching): Unlimited recipe storage, raw material traceability, and order-based production planning.
- Precision Weighing & Micro-Dosing: High sampling rate processing of load cell signals; exact filling with automatic in-flight compensation.
- Route Interlocking: Valve and routing logic designed to prevent cross-contamination between different product batches.

Comprehensive Capabilities

VERACON delivers complete automation packages including:



Electrical Engineering

- Power distribution design
- Control circuit design
- Cable routing & field instrumentation layout
- Load analysis and protection coordination
- MCC/PLC panel construction



Instrumentation

- Speed measurement
- Level detection (radar/ultrasonic/contact)
- Temperature and pressure monitoring
- Flow measurement and dosing accuracy
- Vibration and motor condition sensing



Control Engineering

- PLC program development
- SCADA visualization
- HMI touchscreen interfaces
- Real-time data processing
- Alarm management & diagnostics



Integration

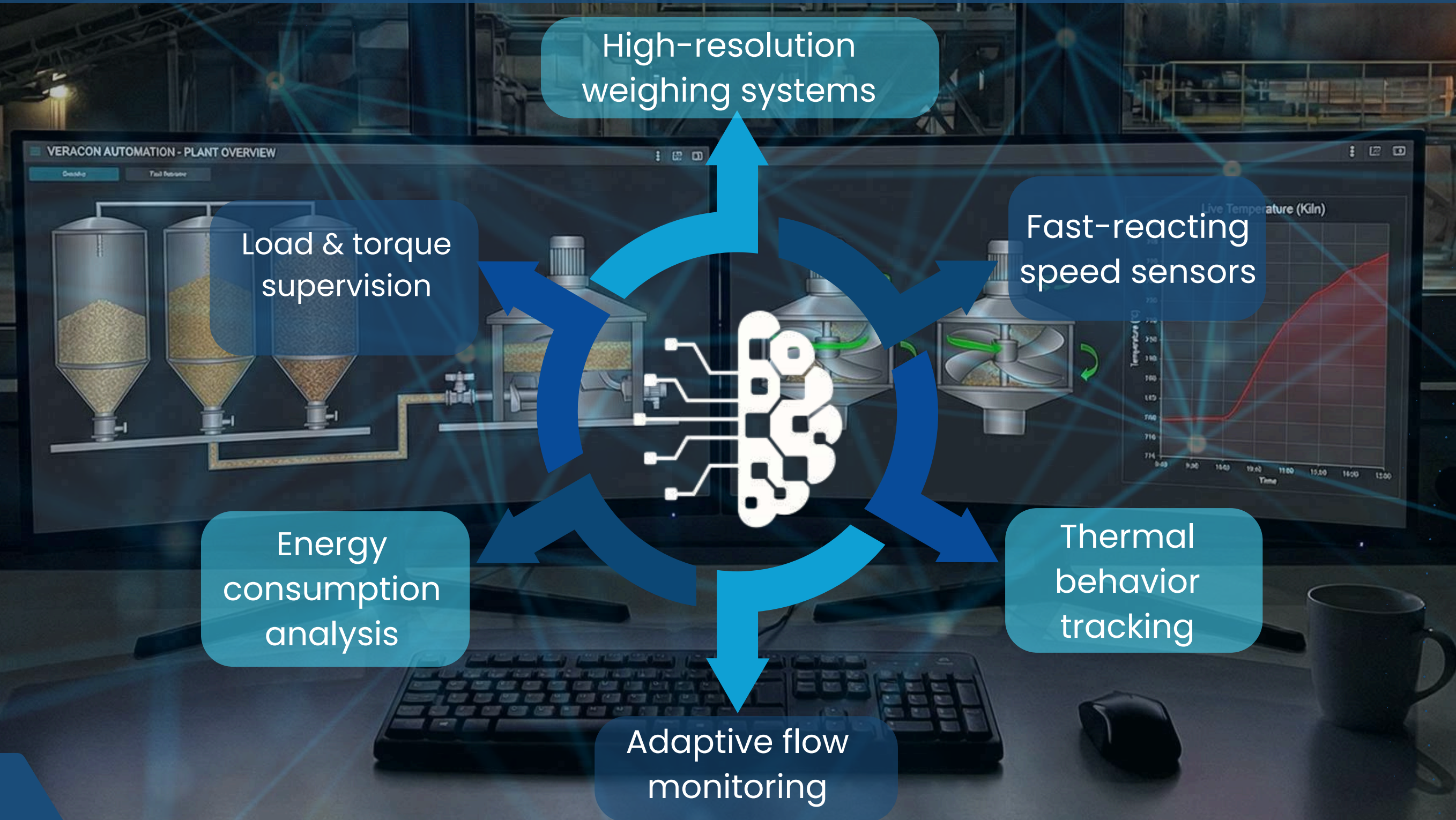
- Multi-machine synchronization
- Centralized control architecture
- Communication over industrial networks (Profinet, Modbus, Ethernet/IP)





Intelligent Measurement Monitoring

Machine performance is only as strong as the information it provides. VERACON integrates advanced sensors and measurement modules to deliver reliable, high-precision data:





High-Strength Sensors for Harsh Environments

Our sensors are selected to survive the realities of industrial conditions:

- Dust-heavy atmospheres
- High vibration zones
- Heat exposure
- Moisture-prone areas
- Continuous 24/7 operation

This ensures uninterrupted machine control and highly reliable measurement accuracy even in demanding environments.

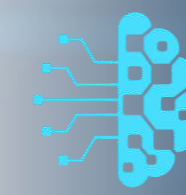
Dosing, Feeding & Flow Control Automation

- Variable-speed dosing mechanisms
- Controlled fast/slow filling
- Weight-based dosing algorithms
- Continuous belt weighing
- Inductive and impact flow meters
- Adaptive recipe control

These systems minimize wastage, control load distribution, and maintain smooth machine operation.

Precision in material handling defines the quality of machine output.

VERACON designs dosing and feeding systems that ensure consistent flow and stable material behavior:



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Our MCC panels are engineered for durability, safety, and long-term performance.

Key Features:

- ✓ IP41–IP55 protection classes
- ✓ Epoxy powder-coated galvanized structures
- ✓ Fault-segregated compartments
- ✓ Busbar systems with certified adaptors
- ✓ Overload, short-circuit & surge protection
- ✓ Integrated energy analyzers
- ✓ Optional panel cooling or filtration units
- ✓ Full labeling and structured cable documentation

MCC (Motor Control Centers)



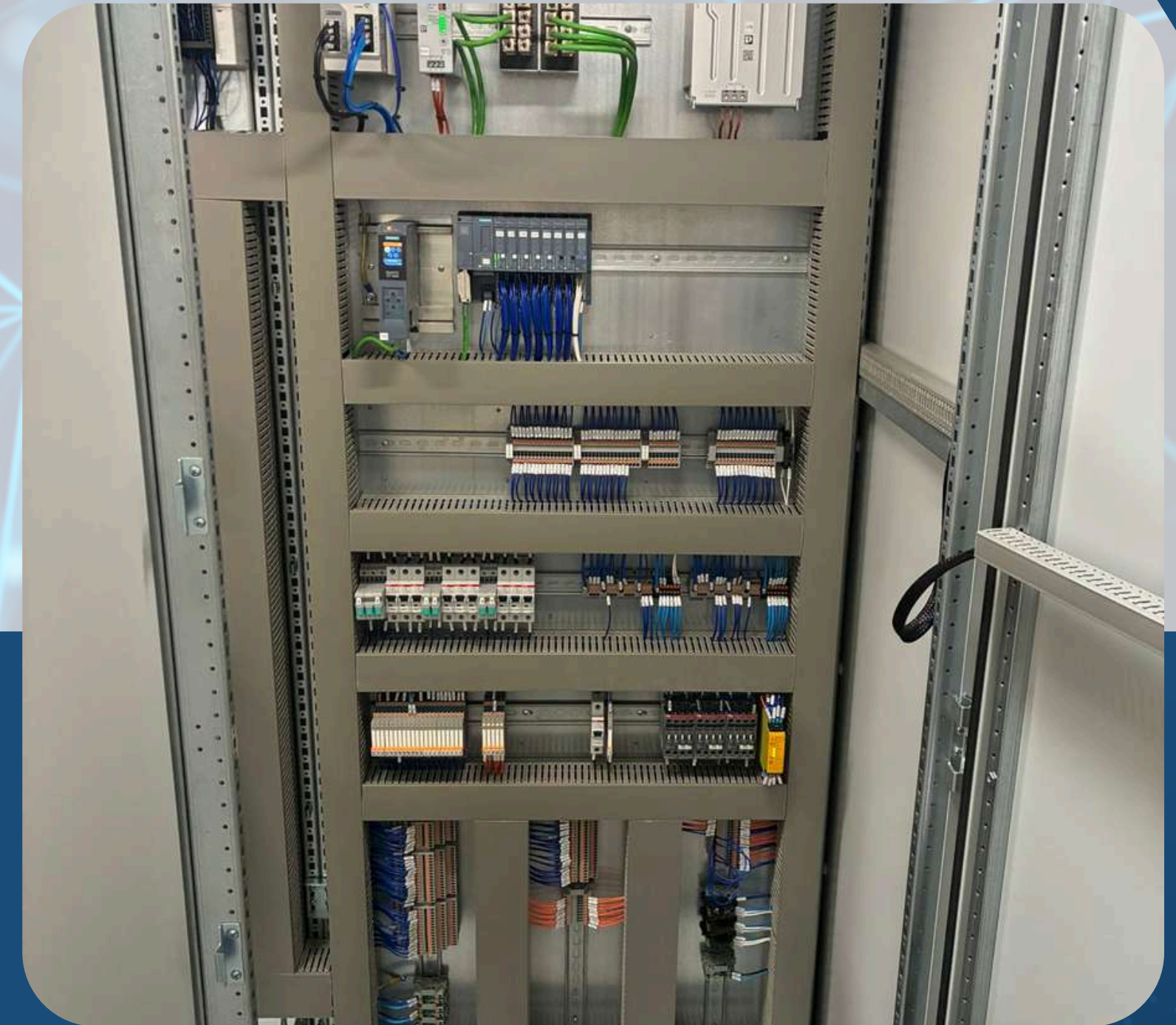
Each MCC follows strict electrical design standards and is verified through multiple mechanical and functional tests.

PLC panels serve as the command unit of every VERACON automation system.

PLC Control Panels

Panel Capabilities:

- ✓ Modular I/O expansion
- ✓ Redundant power supply options
- ✓ UPS-backed logic systems
- ✓ Isolated control circuits
- ✓ High-speed CPU processing
- ✓ Industrial communication ports
- ✓ Safety relay integration



Every panel is built to operate reliably under continuous machine cycles and support future system expansion.

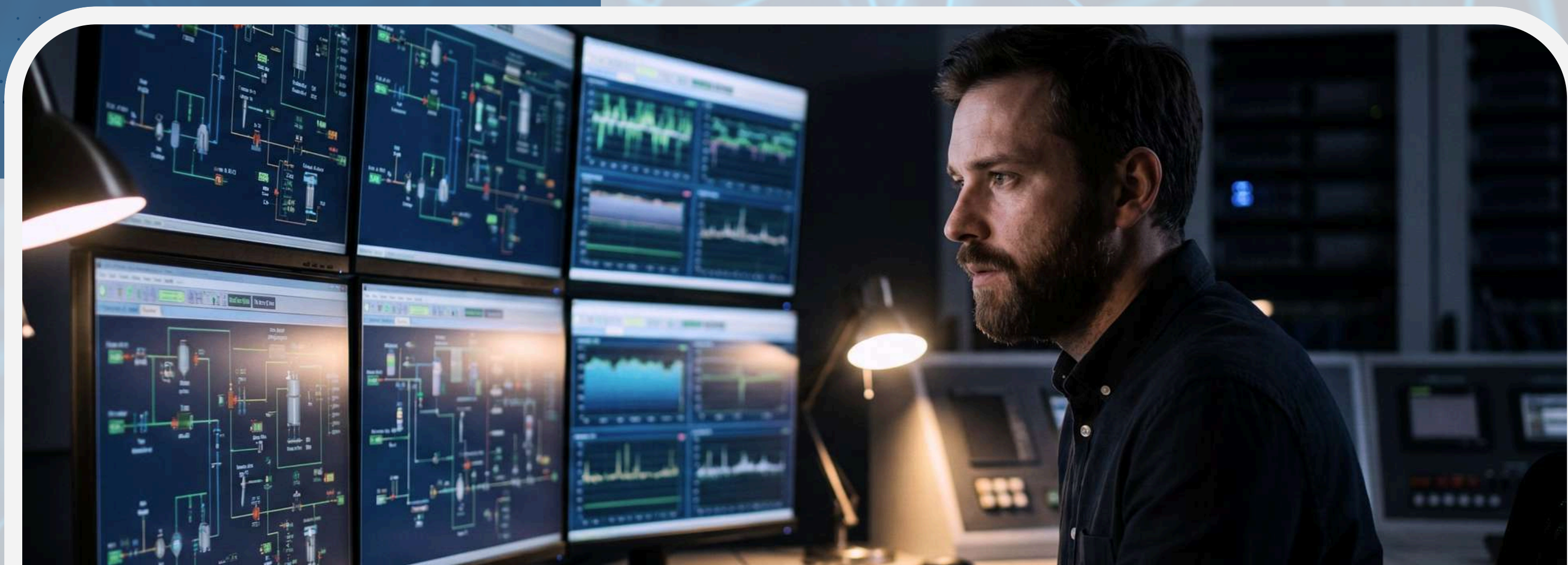
SCADA Visualization

SCADA transforms machine activity into real-time intelligence.

SCADA Features:

- Live monitoring of machine conditions
- Historical trend recording
- Alarm management with categorized warnings
- Energy usage dashboards
- Parameter adjustment & recipe control
- Remote-access capability
- Production reports and shift summaries

This centralized platform gives operators full visibility into machine behavior, enabling informed decisions and rapid response



Software Engineering & Logic Structure



VERACON develops automation software using structured, modular logic to ensure clarity, speed, and scalability.

Software Strengths:

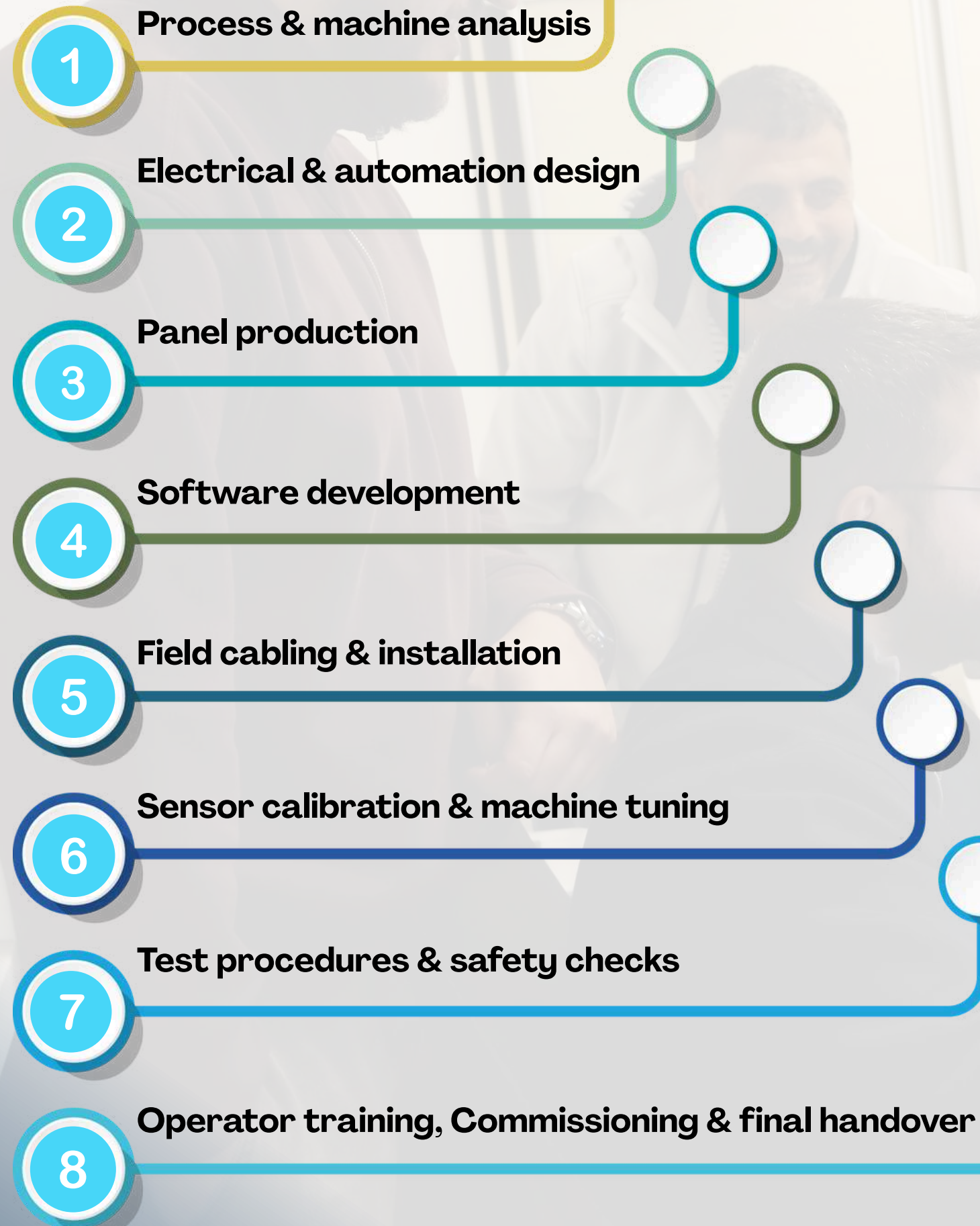
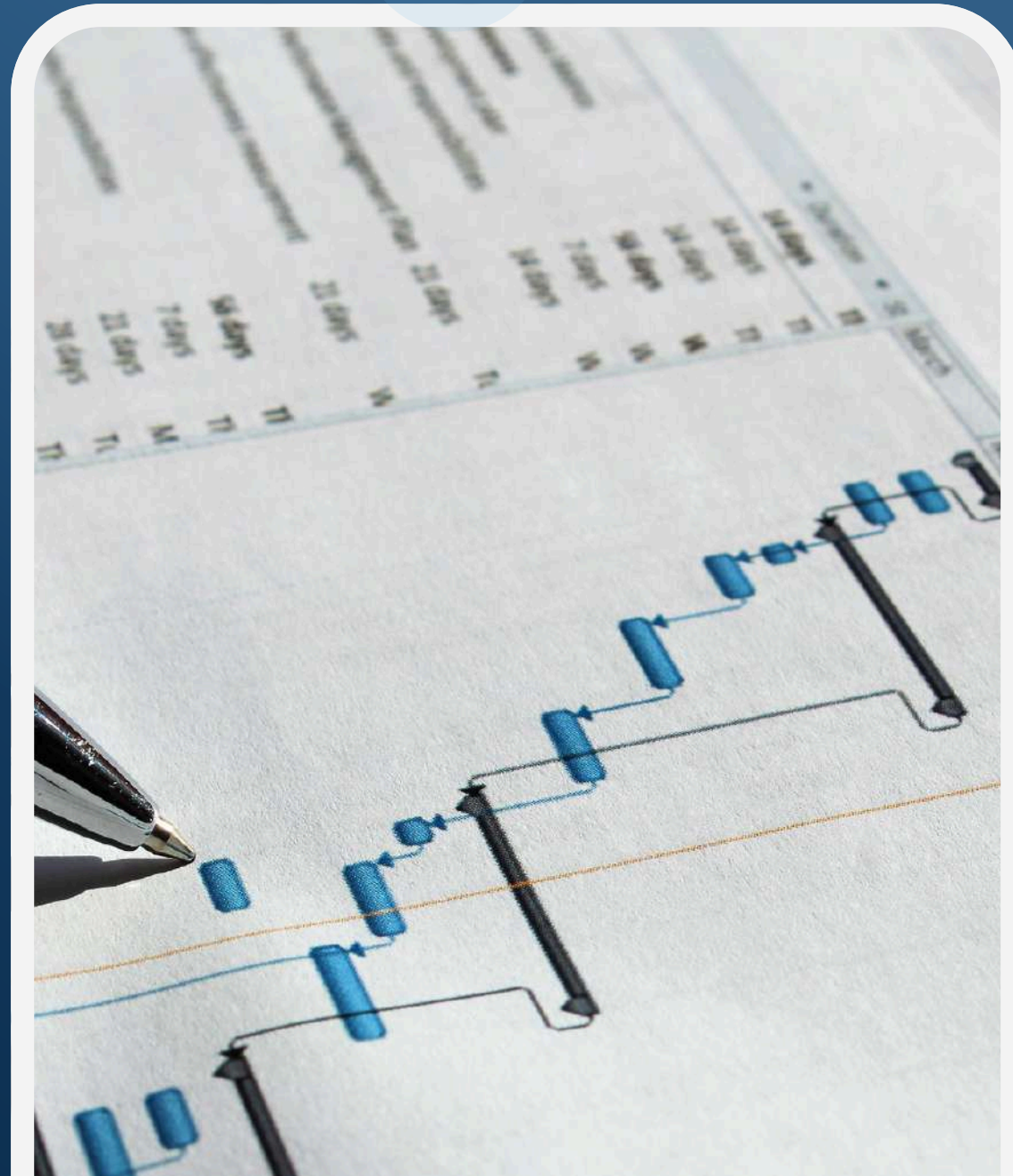
- Standardized function blocks
- Diagnostic layers for error tracing
- Single-click parameter changes
- Fail-safe logic where required
- Optimized cycle times
- Integration with third-party equipment

Our programming methods support long-term maintenance and easy system upgrades.



Project Workflow

Every VERACON project follows a structured roadmap:

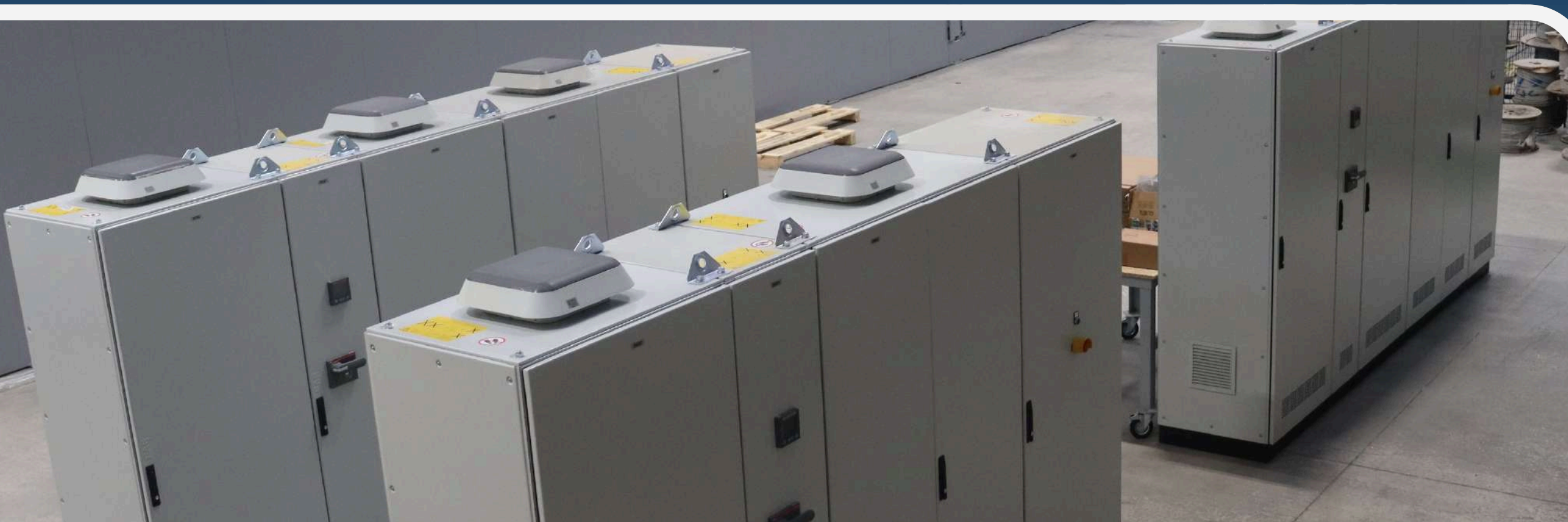
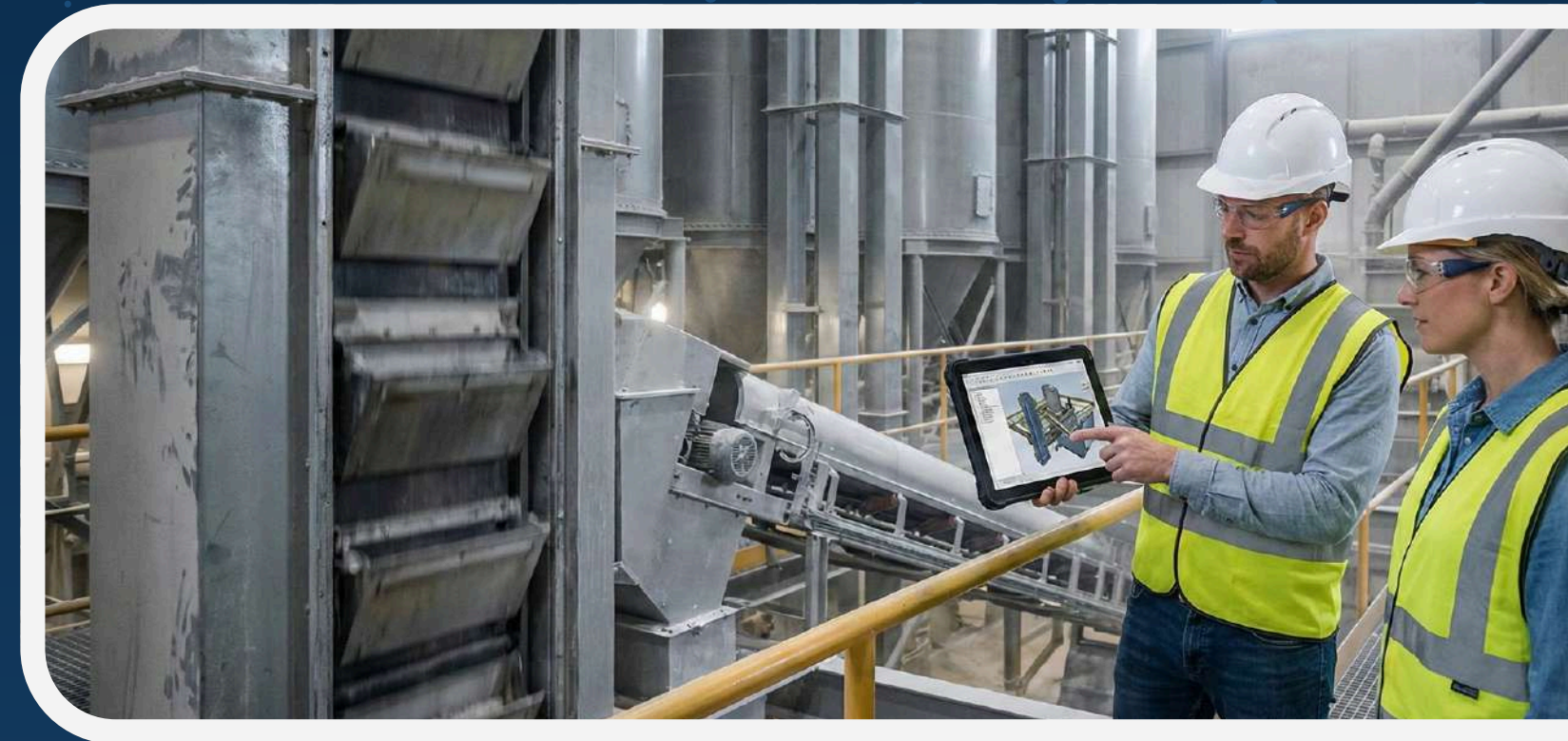


Quality Assurance Standards

Our QA procedures include:

- Panel functional tests
- Insulation and grounding checks
- Sensor accuracy verification
- Communication stability tests
- Logic and alarm behavior validation
- Load simulations
- Environmental condition tolerance checks

Only after passing every stage does a VERACON system leave our hands.

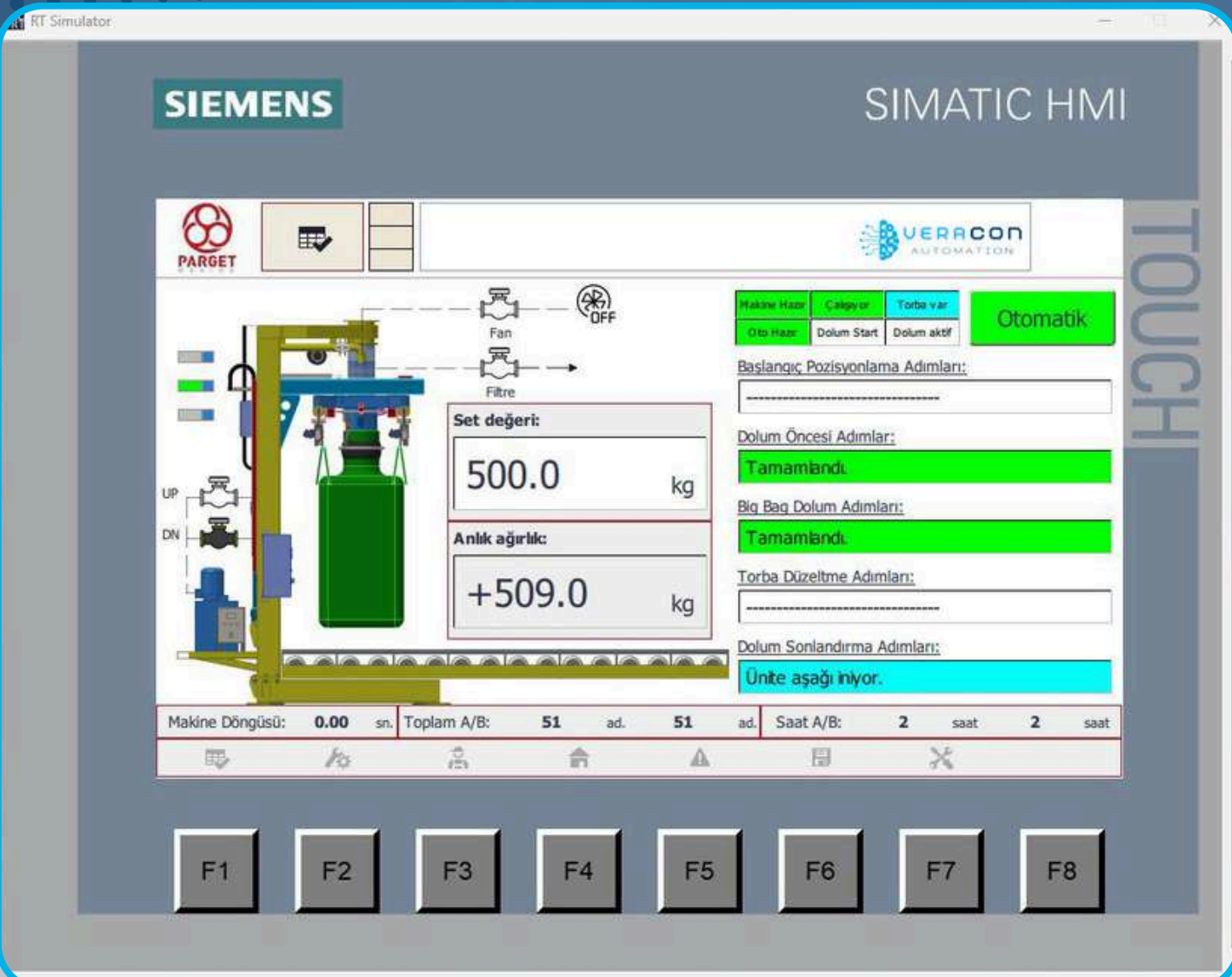


Global Technology Infrastructure

We engineer our systems using high-performance components from globally recognized manufacturers. This strategic choice ensures widespread service support, rapid spare parts supply, and long-term operational reliability for your facility.

Brands We Trust:

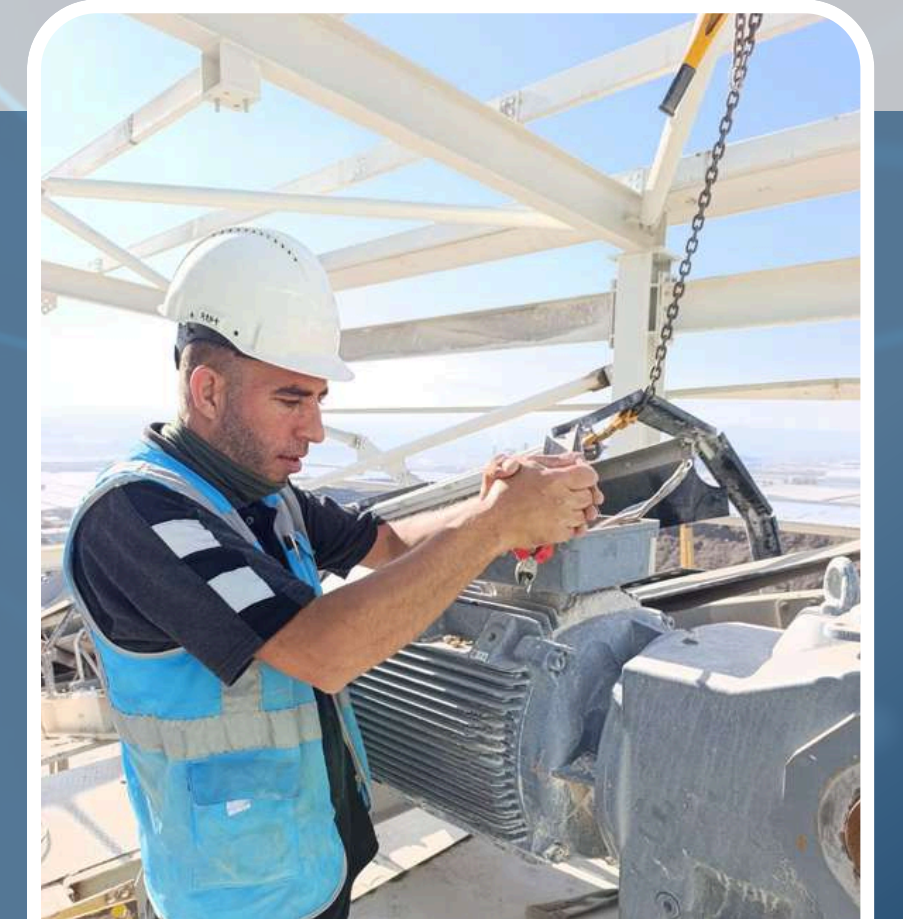
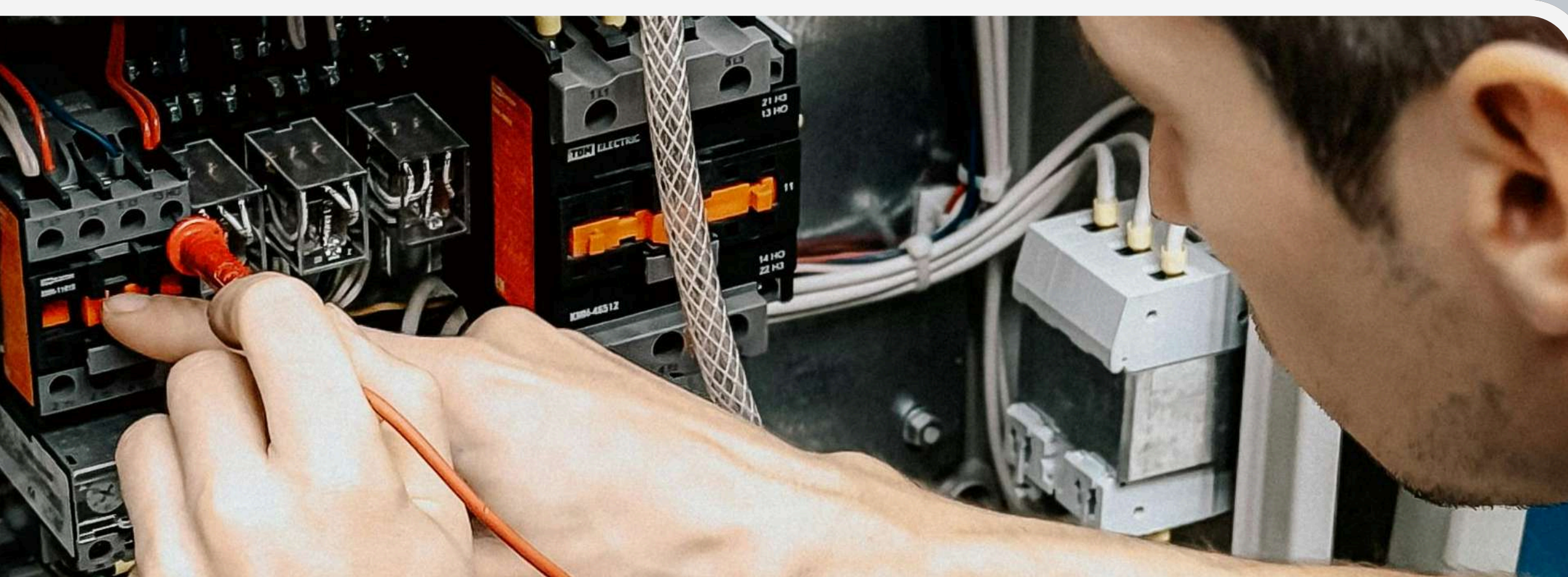
- **Siemens**
- **ABB**
- **Schneider Electric**
- **Danfoss**
- **Pilz**
- **Phoenix Contact**
- **Weidmüller Telemecanique**
- **VEGA**
- **Pepperl+Fuchs**
- **Vishay**
- **Tectis**



Service, Support & Aftercare

 **Our commitment continues long after installation:**

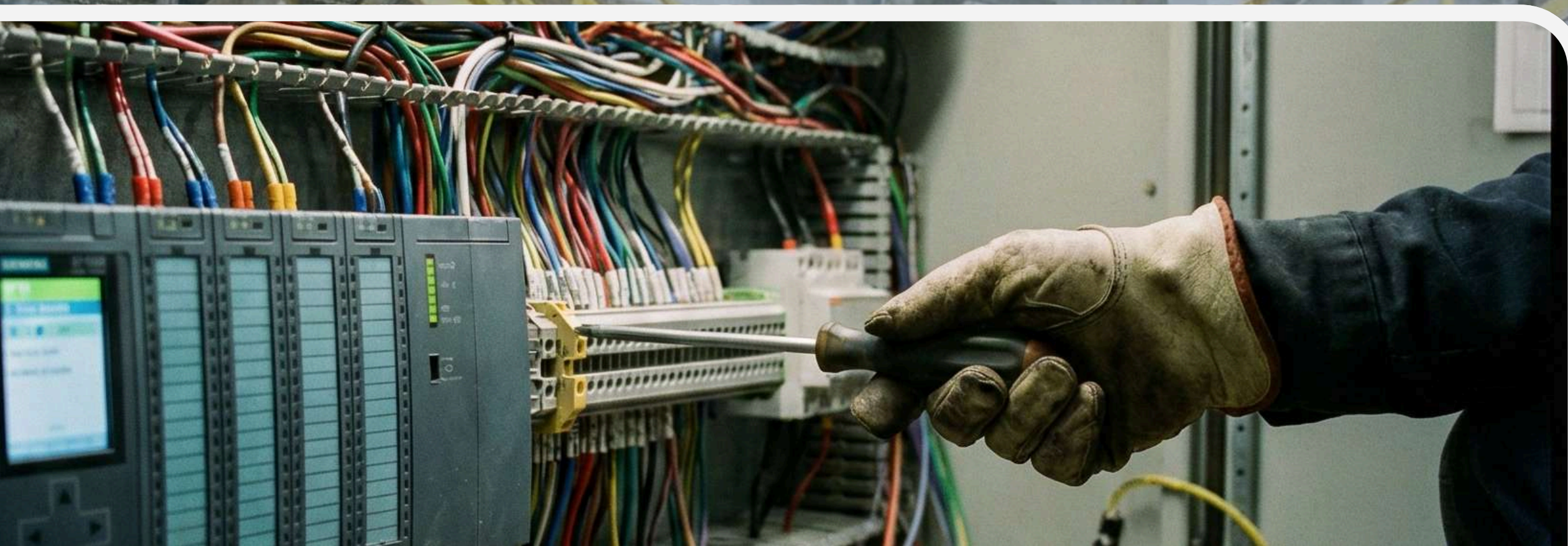
-  On-site technical assistance
-  Remote troubleshooting
-  SCADA and PLC updates
-  Operator retraining
-  Preventive maintenance consultations
-  Replacement of sensors and components
-  We ensure your machines continue to operate at peak performance over their entire lifetime.



Advantages of VERACON Automation

Choosing VERACON brings measurable benefits:

- Less downtime through predictive logic
- Stable and repeatable machine cycles
- Enhanced safety and alarm response
- Reduced material losses
- Lower energy consumption
- Faster operator control and troubleshooting
- Expandable automation architecture



Industrial Supply & OEM Solutions



OEM & Ready-to-Use Solutions We transform our field experience into standardized, plug-and-play control panels designed for machine manufacturers.

Belt Scale Automation Panel: A complete solution for conveyor systems, featuring high-precision flow monitoring, total load calculation, and robust environmental protection.

Big Bag Filling Panel: Engineered for accuracy with integrated fast/slow feeding algorithms and weight-based dosing control, ensuring consistent packaging performance.

Custom OEM Control Panels: Tailor-made PLC and drive panels designed for serial machine production, offering cost-efficiency and rapid integration.

Component Procurement Services Extensive stock and procurement support for LV/MV switchgear and automation hardware.

LV Switchgear: Contactors, circuit breakers, fuses, and protection relays from top-tier global manufacturers.

MV (Medium Voltage) Equipment: Essential consumables and protection equipment for medium voltage facility installations.

Automation & Drives: Supply of PLCs, HMI panels, AC Motor Drivers (VFD), Soft Starters, and industrial sensors.

Field Installation Materials: Power and signal cables, cable trays, mounting accessories, and instrumentation devices

Future-Ready Technology

VERACON builds automation systems prepared for the next generation of industry:

- Integration with smart sensors and IoT devices
- Compatibility with cloud data platforms
- Expandable SCADA modules
- AI-assisted diagnostics (optional)
- Remote access & monitoring
- Ready infrastructure for digital transformation



The VERACON team

Behind every automation system is a team of engineers, software developers, designers, and field specialists who bring precision and passion into every project.

Their expertise ensures that every system is built with accuracy, tested with care, and delivered with confidence.

www.veracon.com.tr





Automation



Business



Streamlining

The mind behind the machines



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