

AutoMach Services

COMPANY PROFILE



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About Us.

Introduction

Welcome to AutoMach Services, your trusted partner in industrial automation and smart technology solutions. With a focus on innovation and efficiency, we are dedicated to transforming industries through our comprehensive offerings in automation, IoT, instrumentation, and control panel services.

AutoMach provides Turnkey Enterprise Solutions that meets the business-critical needs of global enterprises in manufacturing, construction, government, utilities, oil and gas, energy, water and more.



Mission & Vision.

MISSION

To be a global leader in industrial automation and smart technology solutions, empowering industries to achieve unparalleled efficiency, connectivity, and innovation through cutting-edge automation and IoT integration.

VISION

At AutoMach Services, our mission is to provide tailored solutions in industrial automation, IoT, instrumentation, and control panel services that drive operational excellence and enhance productivity for our clients.

We are committed to:

- **Innovation:** Continuously exploring and implementing the latest technologies to meet the evolving needs of the industry.
- **Customer-Centricity:** Building strong partnerships with our clients by delivering exceptional service and customized solutions that align with their unique goals.
- Quality & Reliability: Ensuring the highest standards in our products and services to guarantee optimal performance and satisfaction.
- **Sustainability:** Promoting efficient and sustainable practices that contribute to a better future for industries and the environment.

Our Services

- Industrial Automation
- IoT & cloud SCADA
- Pump Sales / Services





- Electrical Control panels
- Fuel Monitoring System
- Fleet Management System
- Instrumentation

- Repair & service of Industrial products
- Control products Trading
- Engineering consultancy



Industrial Automation

We assist in automating the entire industrial lifecycle, encompassing design, integration, commissioning, and on-site acceptance. Additionally, we offer ongoing after-sales support and upgrades for legacy systems. Leveraging our expertise across multiple automation platforms, we deliver industrial automation solutions using a range of control systems, including PLC & DCS. Our solutions enable the control of various operations with minimal human intervention.



By applying sophisticated control strategies and technologies, we ensure that the automation system becomes an integral and efficient part of your industry and domain, achieving optimal performance and output.

Industrial automation services encompass a range of solutions designed to improve manufacturing efficiency, productivity, and safety by automating industrial processes.

These services often include:

- 1. System Design and Integration: Tailoring automation systems to specific manufacturing needs, including selecting and integrating hardware (sensors, actuators, controllers) and software (SCADA, MES).
- 2. **Process Automation:** Implementing and optimizing control systems to automate repetitive tasks, such as assembly lines, packaging, or quality control.
- 3. **Control Systems Engineering:** Designing and programming control systems, such as PLCs (Programmable Logic Controllers) and DCS (Distributed Control Systems), to manage and monitor industrial processes.
- 4. Data Acquisition and Analytics: Collecting and analyzing data from industrial processes to optimize performance, predict maintenance needs, and improve decision-making.
- 5. **Maintenance and Support:** Providing ongoing maintenance services, troubleshooting, and support to ensure the automation systems run smoothly and efficiently.
- 6. **Training and Consultation:** Offering training programs for staff on new systems and technologies, and consulting services to help businesses identify automation opportunities and solutions.
- 7. Cybersecurity: Implementing security measures to protect industrial control systems from cyber threats and ensure data integrity.
- 8. **Retrofit and Upgrade Services:** Updating or retrofitting existing systems with new technologies to extend their lifespan and improve functionality.
- 9. **Project Management:** Overseeing the entire automation project lifecycle, from initial planning and design through to implementation and post-installation support.

These services are crucial for industries looking to enhance their operational efficiency, reduce downtime, and stay competitive in the market.

IoT & cloud SCADA

IoT and cloud SCADA systems are transformative in industrial automation. By integrating these technologies, businesses can monitor and control their operations remotely, which enhances flexibility and efficiency.

The Internet of Things (IoT) and cloud-based SCADA systems are crucial in industrial automation, offering the ability to monitor and control entire operations from virtually anywhere.



Their primary goal is to foster cooperative communication and interaction within the manufacturing, construction and facility management sectors. Our robust system is designed for flexibility and scalability, allowing you to manage and adapt your operations effectively while working within a limited budget.

Integration of IoT & Telemetry;

- Enhanced Monitoring: IoT devices can provide telemetry data to centralized systems for comprehensive monitoring and control.
- **Improved Decision-Making:** Combining real-time telemetry data with IoT analytics enables more informed decision-making and faster response times.
- **Operational Efficiency:** Automation of data collection, processing, and reporting reduces manual intervention and increases operational efficiency.
- **Predictive Maintenance:** IoT sensors and telemetry data can be analyzed to predict equipment failures and schedule maintenance before issues occur.

Pump Sales & Rentals

At AutoMach Services, we specialize in providing high-quality pumps for a wide range of applications. Whether you need to purchase a pump or are looking for a rental solution, we have you covered.

These pumps are suitable for dewatering, over pumping storm water, drainage pumping, seawater intake, irrigation and chillar plants. The suction and discharge is 150x150mm / 200x200mm / 300x300mm with closed or open type impeller options and mechanical seal or gland packing options



Our Offerings:

Sales:

- Diverse Product Range: We offer a comprehensive selection of pumps, including submersible, centrifugal, piston, and more.
- Quality Assurance: Our pumps are sourced from leading manufacturers, ensuring reliability and efficiency.
- Expert Guidance: Our knowledgeable team is here to help you select the right pump for your specific needs.

Rentals:

- Flexible Rental Terms: We provide short-term and long-term rental options to suit your project requirements.
- Maintenance & Support: All rental pumps are well-maintained and come with full support to ensure optimal performance.
- Quick Availability: Need a pump on short notice? We have a large inventory ready for immediate rental.

Fleet Management System

A fleet management system (FMS) is a comprehensive solution designed to oversee, manage, and optimize vehicle fleets for businesses. This system typically integrates various technologies and tools to provide insights, improve operational efficiency, and ensure better control over fleet operations. Overview of the Fleet management system; 1. Vehicle tracking 2. Fleet maintenance 3. Driver management 4. Fuel management 5. Routing & dispatching 6. Reporting & analysis 7. Alerts & notifications 8. Compliance management



Benefits of a Fleet Management System:

- 1. Enhanced Efficiency: Optimizes routes and schedules, leading to reduced fuel consumption and improved delivery times.
- 2. Cost Reduction: Lowers operating costs through better fuel management, reduced maintenance expenses, and minimized downtime.
- 3. **Improved Safety:** Monitors driver behavior and provides safety training, reducing the risk of accidents and enhancing overall road safety.
- 4. Better Compliance: Ensures adherence to regulatory requirements, helping to avoid fines and legal issues.
- 5. **Increased Productivity:** Streamlines operations with automated tools for scheduling, dispatching, and tracking, allowing for more effective resource allocation.
- Real-Time Insights: Provides real-time visibility into fleet operations, enabling proactive decisionmaking and problem-solving.
- 7. Environmental Impact: Helps in reducing the fleet's carbon footprint through efficient fuel usage and optimized routes.

Fuel Monitoring System

A remote fuel monitoring system is a technological solution designed to track and manage fuel levels, usage, and other related metrics from a distance. Such systems are commonly used in various industries, including transportation, logistics, and energy, to improve efficiency, reduce costs, and enhance operational oversight.



Benefits of FMS are as follows:

- 1. Real-Time Monitoring: Provides immediate visibility into fuel levels and usage, helping to prevent theft and ensure efficient fuel usage.
- 2. **Cost Savings:** Reduces unnecessary fuel consumption and prevents overfilling or underfilling, which can lead to cost savings.
- 3. **Operational Efficiency:** Enhances planning and logistics by providing accurate data on fuel needs and usage patterns.
- 4. Maintenance and Safety: Early detection of potential issues such as leaks or equipment malfunctions, which can prevent costly repairs and ensure safety.
- 5. Environmental Impact: Helps in reducing fuel wastage and optimizing fuel usage, which can contribute to a lower carbon footprint.
- 6. **Fuel consumption report:** Time stamped fuel consumption report can be generated & it could be used for project fuel estimation, verification & fuel discrepancy analysis.
- 7. Avoids Fuel mismanagement / theft: If there is a sudden drop in fuel level, user will get automated email notifications.

Electrical control panels

We do supply, Installation and maintenance of control panels used in various industrial, commercial, and residential applications. Control panels are crucial for managing and monitoring electrical and mechanical systems, ensuring safe and efficient operation.

Here's a comprehensive overview of control panels supply and services:



Control Panels Supply:

- Electrical Control Panels: Manage electrical circuits, protect equipment, and ensure proper power distribution.
- **PLC Panels:** House programmable logic controllers (PLCs) for automation and control of industrial processes.
- SCADA Panels: Support supervisory control and data acquisition (SCADA) systems for large-scale process control and monitoring.
- Motor Control Centers (MCCs): Control and monitor electric motors in industrial settings.
- Pump control panels: Control and monitor electric pumps in Facility management, construction, water sctor.
- HVAC Panels: Manage heating, ventilation, and air conditioning systems.

Control Panels Services:

- 1. Design and Engineering
- 2. Manufacturing and Assembly
- 3. Installation
- 4. Programming and Configuration
- 5. Testing and Commissioning
- 6. Maintenance and Support
- 7. Compliance and Certification

Instrumentation & Control products

We do supply of control and instrumentation products are essential components in various industries for managing and monitoring processes, ensuring efficient operation, and maintaining safety standards. These products include devices and systems that control machinery, measure variables, and provide feedback for process optimization. Here's a comprehensive overview of control and instrumentation products, including their types, applications, and considerations for supply:



Types of Control and Instrumentation Products

1. Sensors:

- Temperature Sensors: Measure temperature in various applications (e.g., thermocouples, RTDs).
- Pressure Sensors: Monitor pressure levels in gases and liquids.
- Level Sensors: Detect the level of substances (e.g., capacitive, ultrasonic, radar).
- Flow Sensors: Measure the flow rate of liquids or gases (e.g., electromagnetic, turbine).

2. Transmitters:

- Pressure Transmitters: Convert pressure measurements into an electronic signal.
- Level Transmitters: Provide continuous level measurement and transmit data.
- Temperature Transmitters: Convert temperature readings from sensors into a standardized signal.

3. Controllers:

- Programmable Logic Controllers (PLCs): Automate processes by controlling machinery based on input signals.
- Distributed Control Systems (DCS): Manage and control complex processes across multiple locations.
- Temperature Controllers: Regulate temperature by controlling heating or cooling elements.

4. Indicators and Displays:

- Digital Indicators: Show measurements from sensors (e.g., digital readouts for temperature, pressure).
- Graphic Displays: Provide visual representations of process data and trends.
- Alarm Panels: Alert operators to abnormal conditions or process deviations.

5. Actuators:

- Electric Actuators: Control mechanical movements using electric power.
- Pneumatic Actuators: Use compressed air to move or control equipment.
- Hydraulic Actuators: Utilize hydraulic fluid for heavy-duty movements.

6. Switchgear:

- Circuit Breakers: Protect electrical circuits from overloads and short circuits.
- Contactors and Relays: Switch electrical circuits on and off.

Repair of Industrial products

Repairing industrial control products involves diagnosing and fixing issues with equipment used for controlling and automating industrial processes. These products are critical for ensuring operational efficiency, safety, and reliability in various industrial settings. Here's a comprehensive guide on the repair of industrial control products, including common issues, repair procedures, and considerations.



Common Industrial Control Products and Their Issues,

1. Variable Frequency Drives (VFDs):

- Common Issues: Overheating, fault codes, electrical failures, parameter setting errors, component wear.
- Symptoms: Motor performance issues, error codes on display, overheating, erratic operation.

2. Programmable Logic Controllers (PLCs):

- Common Issues: Communication failures, I/O module failures, processor failures, power supply issues, software errors.
- Symptoms: Loss of communication, I/O malfunction, PLC crashes or resets, unexpected behavior in automation.

3. Human-Machine Interfaces (HMIs):

- Common Issues: Display failures, touch screen issues, communication problems.
- Symptoms: Unresponsive touch screens, display errors, issues with data updates.

4. Sensors (e.g., temperature, pressure, flow):

- Common Issues: Sensor drift, calibration errors, physical damage.
- Symptoms: Incorrect readings, inconsistent data, physical wear or damage.

5. Control Panels:

- Common Issues: Wiring faults, component failures, outdated controls.
- Symptoms: Electrical failures, inconsistent performance, physical damage to components.

6. Actuators (e.g., electric, pneumatic, hydraulic):

- Common Issues: Mechanical failure, control signal issues, air or fluid leaks.
- Symptoms: Inaccurate or failed movements, noise, leakage.

Engineering consultancy

Engineering consultancy involves providing expert advice and solutions to clients in various engineering fields. Consultants offer their expertise to solve complex problems, optimize systems, and ensure projects are executed efficiently and effectively. Here's an overview of engineering consultancy, including its services, benefits, and considerations for choosing a consultancy.



- 1. Feasibility Studies: Assess the viability of projects and solutions, including cost-benefit analysis and risk assessment.
- 2. Design and Engineering: Develop detailed designs and engineering solutions tailored to project requirements.
- 3. Project Management: Oversee project execution, manage resources, and ensure timely delivery within budget.
- 4. Technical Analysis: Conduct detailed technical analysis to solve complex problems or optimize existing systems.
- 5. Regulatory Compliance: Ensure projects comply with relevant regulations, standards, and codes.
- 6. Troubleshooting and Diagnostics: Identify and resolve technical issues or inefficiencies in existing systems.
- 7. Optimization and Efficiency Improvement: Enhance performance and efficiency of systems and processes through analysis and redesign.
- 8. Training and Support: Provide training for staff and ongoing support for implemented solutions.
- 9. Risk Management: Assess and mitigate potential risks associated with engineering projects or systems.

Why Choose Us?

- **Reliability:** Offering robust, high-quality products and services that our clients can depend on for consistent performance and operational success.
- **Innovation:** Continuously integrating the latest advancements in technology to meet the dynamic needs of our clients and the industry.
- **Customer Focus:** Building lasting relationships by understanding our clients' unique challenges and providing tailored solutions that exceed their expectations.
- **Expertise:** Leveraging our extensive knowledge and experience to ensure successful implementation and ongoing support for all our solutions.
- **Sustainability:** Committing to environmentally responsible practices that enhance operational efficiency while contributing to a sustainable future.

At AutoMach Services, we are passionate about harnessing technology to drive industrial efficiency and innovation. Let's work together to unlock the full potential of your operations and propel your business into the future.







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