

GOA'S INDUSTRIAL LEAP

2025 AUTOMATION & INDUSTRY GUIDE

Strategies, Solutions & Statistics for
Modernization









Quemahtech doesn't just install systems—we solve problems,
optimize outcomes, and prepare businesses for scalable
growth.

Founded in Goa with over 30 years of legacy, Quemahtech has become one of the region's most trusted names in automation. What began as a niche electrical systems consultancy has evolved into a multi-domain automation powerhouse. Our solutions span smart factory automation, energy optimization, real-time control systems, and industrial IoT.

Our Strengths:

- Headquartered in Goa with deep understanding of regional industries
- A strong team of 12 engineers, supported by domain consultants
- End-to-end in-house design, deployment, and post-commissioning support
- System integrator for Delta Electronics India and Larsen & Toubro but not limited to them
- Experience across pharma, metal, food, beverages, logistics, chemicals, and energy sectors

Why Choose Us

-  Proven Legacy: Over three decades of industrial and electrical systems expertise
-  Trusted by Goa's Leading Industries in Verna, Pissurlem, Cuncolim, and Corlim
-  Tailored Solutions: We listen, diagnose, and design around your bottlenecks
-  Technology-Backed Outcomes: From energy savings to AI-based inspection
-  Scalability at Core: Designed for future expansion and plug-and-play automation
-  Data-Driven Delivery: Transparent ROI tracking and impact reports

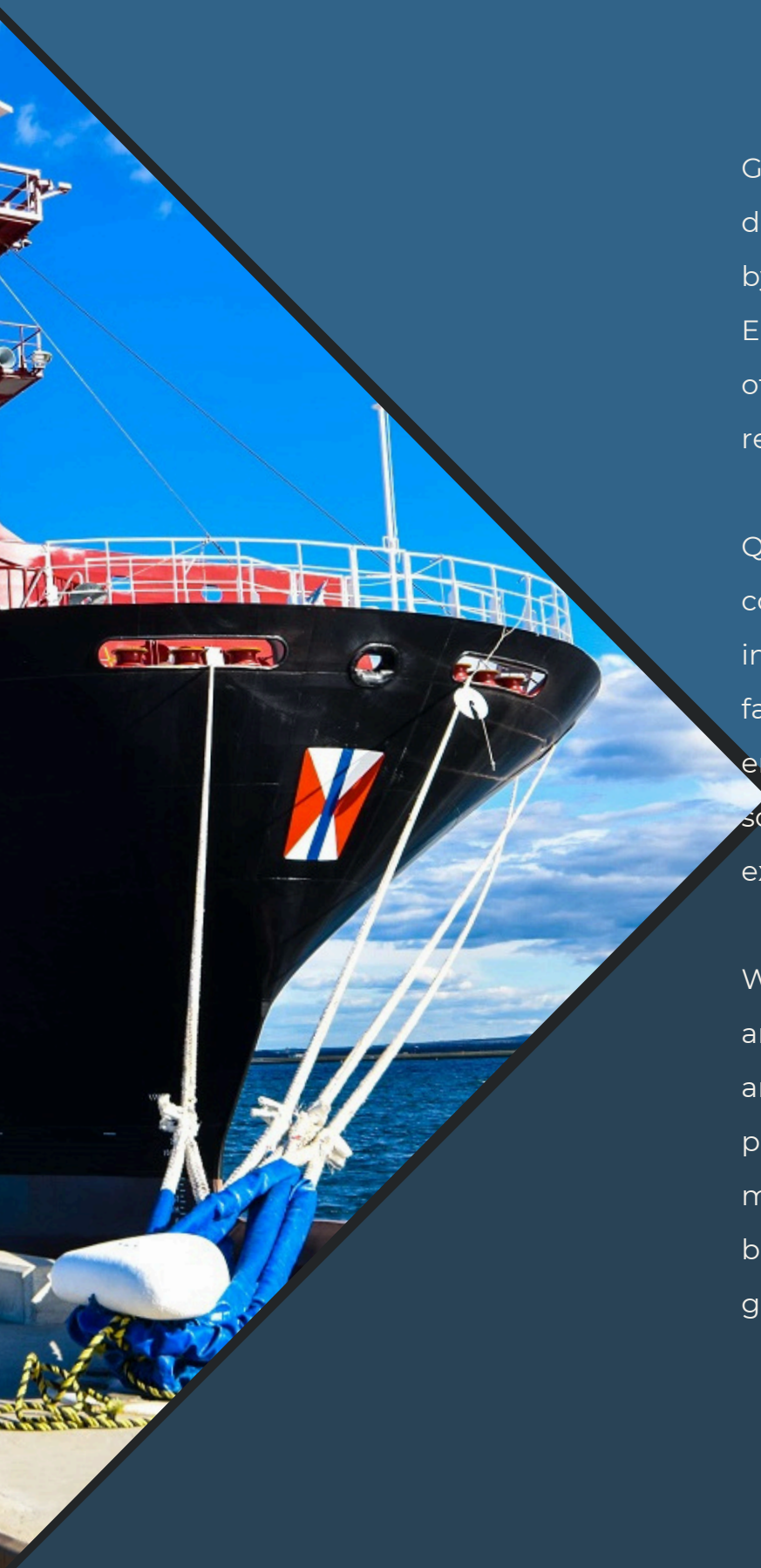
Quemahtech is not a vendor. We're a long-term efficiency partner. Whether you're exploring predictive maintenance or complete process overhauls, we design solutions with your future in mind.

Why This Checklist Matters

Goa's industrial estates are entering a defining phase. With energy prices surging by an average of 8–12% annually, increasing ESG compliance mandates, and a shortage of skilled labour, factory owners must reimagine operations.

Quemahtech, a Goa-based automation company, plays a pivotal role in advancing industrial efficiency. Specialising in smart factory design, industrial automation, and energy intelligence, Quemahtech delivers scalable solutions built on years of domain expertise and tailored consultation.

We integrate vision, control, and real-time analytics to create modern factories that are smart, safe, and efficient. This checklist provides a framework for plant heads, maintenance engineers, and CXOs to benchmark existing practices and uncover growth levers in 2025.



✓ Energy Management & Power Continuity

Audit Checklist:

- Do you experience peak-hour penalties (LT/HT category bills)?
- Are DG sets used regularly due to voltage drops?
- Do compressor motors and VFDs trip frequently?

Quemahtech Solutions:

- Energy Management System (EMS) with harmonics filtration
- 3-phase UPS for critical lines (0.9 PF, 96% efficiency)
- Load optimization: time-of-day load scheduling + solar synchronisation

Key Stats:

- Average ₹3.2–₹4.7 lakh/month energy savings for a 500 kVA plant
- ROI in 4–6 months for UPS + smart load balancing
- Downtime reduced by 94% on lines with UPS-supported PLCs



✓ Process Automation & Production Efficiency

Audit Checklist:

- Are manual setups reducing available runtime?
- Are your machines isolated (non-networked)?
- Is SKU switching taking more than 20 minutes?

Quemahtech Upgrades:

- SCADA + PLC integration across machinery clusters
- M2M communication with error handling logic
- HMI stations with shift-wise productivity dashboards

Key Stats:

- 38–52% boost in production throughput (based on case studies)
- SKU changeover times reduced from 30+ mins to under 8 mins
- ₹12–₹18 lakh/year saved from waste and idle time across 3 shifts

✓ Labour Optimization, Uptime & Workplace Safety

Audit Checklist:

- Are operators involved in repetitive decision-based tasks?
- Is unplanned absenteeism affecting your shift productivity?
- Are manual safety checks being bypassed or skipped?

Quemahtech Upgrades:

- Sensor-based safety and environment monitoring (temp, smoke, vibration)
- Load automation with programmable timers and triggers
- Visual and audio alerts for anomalies in operations

Key Stats:

- 26–40% increase in labour efficiency via co-bots and automation
- Safety incidents dropped by 70–85% (across audited MSMEs)
- Uptime improved by 31% from predictive maintenance

✓ Quality Control, Reporting & Compliance

Audit Checklist:

- Is product rejection over 3%?
- Are daily QA logs manually prepared and archived?
- Are traceability and certifications difficult to retrieve?

Quemahtech Upgrades:

- Real-time image inspection (AI vision) for QC
- Auto logging + cloud backup with ISO-aligned formats
- RFID/Bluetooth tagging from input to dispatch

Key Stats:

- Product rejection reduced by up to 60% within 90 days
- 100% audit-ready compliance logs (24/7 retrievable)
- Compliance man-hours reduced by 42%



✓ Data Intelligence, Visibility & Insights

Audit Checklist:

- Do you have shift-wise energy, output, and downtime analytics?
- Can you remotely monitor shop floor KPIs?
- Are maintenance activities reactive or predictive?

Quemahtech Upgrades:

- SCADA + Cloud integration with mobile dashboards
- Historical trend analysis for loss reduction
- WhatsApp/SMS alert engines for threshold breaches

Key Stats:

- 65% increase in decision-making speed across management levels
- Breakdown frequency reduced by 50–75% via trend-based interventions
- Visibility across 100+ parameters with custom dashboards

✓ Scalability, Modular Design and ROI Forecast

Audit Checklist:

- Are your systems locked to proprietary hardware?
- Can new machines be added without major rewiring?
- Is downtime required to integrate new processes?

Quemahtech Architecture:

- Open-modular systems = plug-and-play across verticals
- Remote software updates and seamless cloud sync
- Designed for pharma, food, metal, packaging, textile, and EV components

ROI Benchmarks:

- Energy automation ROI: 4–6 months
- Full plant automation ROI: 7–14 months
- Long-term gain: ₹25–₹60 lakh/year (across energy, labour, and defect savings)



Final Word: A Smart Industrial Goa

From Verna's pharma clusters to Pissurlem's metal units and Cuncolim's steel yards, Goa's industries are poised to leap into Industry 4.0. Quemahtech enables this transformation by combining automation expertise, domain insights, and scalable solutions. Let's build smarter factories, safer workflows, and stronger bottom lines.

Book a Free Automation Audit

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Engineering Efficiency. Empowering Industry.