

# NALINI DESIGNS & SOLUTIONS

## OPTIMIZING PROCESSES THROUGH END-TO-END ENGINEERING DESIGN EXCELLENCE

The demand for pharmaceutical design services is evolving rapidly, shaped by initiatives like Make in India and the Production-Linked Incentive (PLI) scheme, which promote manufacturing in country. New as well as established players are moving up in value chain and regulatory alignment across markets. India's expanding MSME sector and growing export focus are drawing numerous new entrepreneurs, reinforcing the need for advanced design and engineering. Moreover, in a competitive domestic market, companies are prioritizing automation and system-driven efficiencies and focusing on value creation, key areas where demand continues to surge.

Nalini Design & Solutions holds a strong position in the pharmaceutical, chemical, and intermediates market, known for its comprehensive engineering design services that span from concept to commissioning. With expertise in both greenfield and brownfield projects, the company has earned a reputation for delivering end-to-end solutions tailored to clients' needs. Its strong focus on process engineering, solvent recovery systems, environmental engineering and expertise in mechanization and advanced control systems further distinguishes it, positioning the company as a trusted partner for sustainable and efficient project development in a competitive market.

"In designing projects for API and Pharmaceutical industries, adapting to evolving market demands presents unique challenges. Client requirements at times lack a fixed product basket. Shifts in therapeutic focus can introduce new products, demanding swift adaptability. Additionally, while some companies excel in process and regulatory controls, they may be hesitant about environmental investments. Despite these complexities, we consistently deliver effective solutions tailored to each client's needs. We remain confident in our ability to address any challenges that arise", adds Milind Kulkarni, Founder, Nalini Designs & Solutions.

Nalini Designs & Solutions differentiates itself through direct oversight by senior leadership and a commitment to retaining all core competencies in-house. Unlike many competitors that rely on extensive outsourcing, the company ensures all critical design and engineering work remains under its control. Nalini



Milind Kulkarni  
Founder

Designs & Solutions partners with dedicated associates for specific civil, mechanical, electrical, and instrumentation needs while retaining core expertise internal. This focused approach has enabled the company to maintain a consistent track record of quality and reliability in the industry.

### From Concept to Completion

At Nalini Designs & Solutions, the process of conceptual engineering is methodical, client-focused, and designed to ensure that each project is tailored to meet unique requirements and objectives. The journey begins with a kickoff meeting

aimed at understanding the client's vision, identifying potential gaps, and refining user requirements before advancing into the design phase. During this phase Vastu compliance is also taken in consideration.

The first step involves creating a master layout, which encompasses logistical considerations such as road sizes and flow patterns, and adapts to phased development if necessary, allowing for future expansion aligned with client cash flow. After securing client approval, the project moves to the engineering phase, where cross-functional discussions with R&D, process, and manufacturing teams refine the process timelines, capacities, and equipment specifications. Utilities, safety norms, and environmental, health, and safety (EHS) standards are carefully integrated to ensure compliance.

Upon approval of process flow diagrams, the detailed engineering phase follows, encompassing mechanical, electrical, instrumentation, fire safety, environmental protection, and regulatory compliance components. Simultaneously, construction commences, and the team supervises equipment installation to ensure adherence to specifications. As the site readies, the client undertakes a 'White trial' for final validation. Throughout the commissioning phase, the company remains available to assist, providing technical support for instrumentation, automation, and any additional operational needs.



## WITH EXPERTISE IN BOTH GREENFIELD AND BROWNFIELD PROJECTS, THE COMPANY HAS EARNED A REPUTATION FOR DELIVERING END-TO-END SOLUTIONS TAILORED TO CLIENTS' NEEDS

In its master planning services, Nalini Designs & Solutions prioritizes cost-effectiveness and adaptability by considering essential factors like geographic topography and regulatory norms at the conceptual phase. The focus on optimization of costs, resources, and both CapEx and OpEx ensures clients achieve practical, future-proof layouts that align with their specific needs. Sustainability is woven into all designs, allowing for flexibility in process adjustments to accommodate evolving product lines. Through vertical design principles and modular equipment arrangements, the company maximizes efficiency while enabling clients to pivot operations as needed, staying

aligned with industry trends and regulatory shifts. Emphasizing good engineering and manufacturing practices, the company integrates stringent quality assurance and control standards into its approach.



For HVAC designs in regulated sectors such as pharmaceuticals and food processing, Nalini Design & Solutions ensures compliance with precise environmental control standards. Leveraging modern modeling tools, the company tailors systems to meet various demand levels, from minimum to peak, using methods like VSD (Variable Speed Drives) for energy efficiency. Detailed engineering is further supported by an extensive vendor database and rigorous audits, guaranteeing design accuracy, global compliance, and process optimization with the latest technologies and industry practices.

### Future Roadmap

Nalini Designs & Solutions is actively developing customized systems tailored to specific client needs. The company specializes in creating speed-mounted, fully automated systems that incorporate industry-specific processes. In addition to design, the company supplies ready-to-install systems (plug and play type) housed in a single container, offering a 'solution in a box' that enables clients to quickly start their operations with minimal engineering effort. These customized solutions enhance efficiency, control, and instrumentation accuracy, ensuring greater repeatability in processes. The company stands apart from competitors, as it offers best solutions and integrates modern techniques that address unique process challenges within various industries. Its commitment towards tailored solutions has led to a growing demand for these innovative systems and it seeks to continue expanding custom-made solutions that enhance operational efficiency. **PO**



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**2024**

*In appreciation of its exceptional diligence and inimitable  
approach to fulfill the end-to-end requirements of the customers.*

*Sudhakar Singh*

Sudhakar Singh  
Managing Editor  
India Pharma Outlook