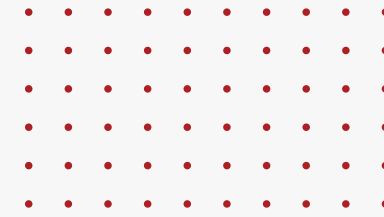


www.monarch-india.com



Monarch Techno Engineering Solutions

MTES

Since 2011

www.monarch-india.com



About Us

Monarch Techno Engineering Solutions (MTES) is a specialized engineering consulting services delivering reliable, precise, and high-quality industrial solutions. With strong expertise across Oil & Gas (Offshore, Onshore), Petrochemicals, Pharmaceuticals and Process industries, MTES focuses on engineering design, project support and technical consulting that drive operational excellence. Built on a foundation of accuracy, integrity and innovation, MTES provides end-to-end engineering support that helps clients enhance efficiency, reduce project risks, and achieve sustainable performance. Our commitment to quality and technical excellence makes us a trusted partner for complex and mission-critical engineering requirements.



Industries we serve



MTES delivers specialized engineering solutions across critical process industries, including Oil & Gas, Petrochemical and Pharmaceuticals. With deep domain expertise and disciplined engineering practices, we support our clients in enhancing safety, reliability, and operational efficiency across complex industrial environments.

Our Area of Expertise

MTES



Petrochemical



Storage Terminal



Oil & Gas



Pharmaceutical



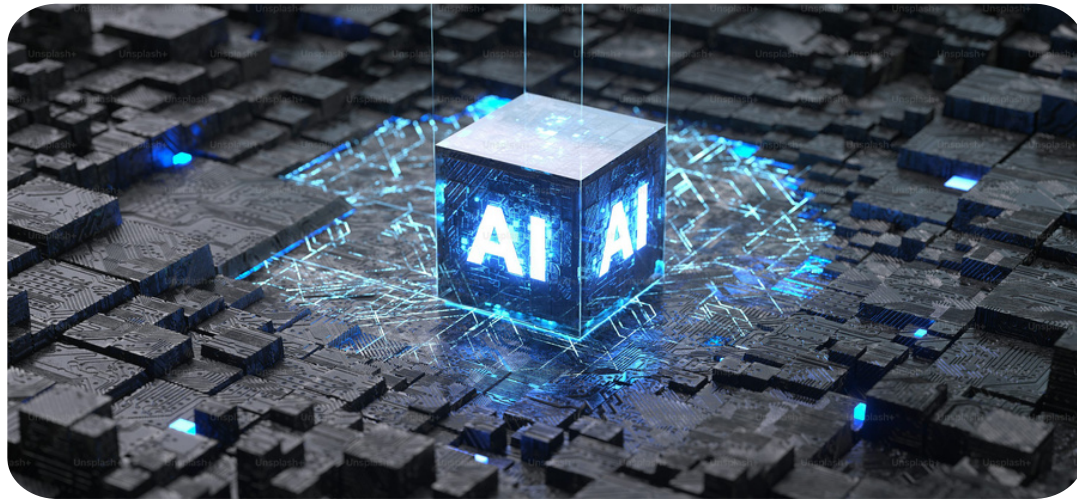
Air Separation



Power

Technology

MTES



Artificial Intelligence



Data & Analysis



Cloud Computing



Digital Enterprise Application



Machine Learning

Multi-Disciplinary Engineering Capabilities



Process	Instrumentation	Structural	Piping	Pipeline
• FEED/ Basic engineering/ Detailed engineering • Development of PFD, P&IDs, UFD, U&IDs • Hydraulic calculation • Vessel / Control valve sizing • Safety valve & Flare Header sizing • Special Services • Surge Analysis • HAZOP/SIL • SPPID & Smartsketch (KKS & ANSI Numbering System) • Procurement Support activities • AVEVA diagrams • Package Engineering • Compressed Air, Instrument Air, Nitrogen • Raw / DM / Potable Water plant, ETP	• Design Basis, Specifications & Control Philosophy • DCS and PLC Engineering • Instrument Index • Field Instrument Datasheets, JB specifications, Block Diagrams • Logic & Control Drawings • Control Power Distribution Diagrams • Layouts - Control Room Equipment, Instrument Layout and Air Distribution Layout • Instrument Hook-up Drawings and Loop Diagrams	• Design Basis & Specifications • Analysis and design of superstructure • Technological Structures • Boiler Structures • Blast Resistance Structure • Piperack (Stick Built & Modular Type) • Truss & Portal Shed • PEB Shed • Steel Chimney • Crossover, Platforms & MPS • Block Type, Tabletop Structure • Skid Design • Substation Building	• Design Basis & Specifications • Conceptual Study • Layouts • Vessel Trims & Nozzle Orientation • 3D Modeling & Review (PDMS, SP3D, PDS) • Supporting & Secondary steel Calculations • Pipe Stress analysis • Isometric drawings	• Design & Engineering • Pipeline route alignment and profile drawings • Material selection (pipe, valves, coatings, etc.) • Wall thickness and stress analysis (as per ASME B31.4/B31.8) • Pipeline hydraulics (flow assurance studies) • Plot plans and GA drawings • Isometric drawings and pipe support design • Pipe stress analysis

Multi-Disciplinary Engineering Capabilities



Electrical	Mechanical	Project Management	Digitization	QA/QC
• Design Basis & Specifications • Power System Studies • Equipment Sizing • Switchyard Design • Earthing & Lightning Protection System Design • Cable Sizing & Schedule • Lighting System Design • Consumer/Load List & SLD Preparation • Fire & Gas Detection System Design • Electrical hookups • Cable Tray Design and Layout	• Equipment Design - Pressure Vessels, Heat Exchanger, Columns, Reactors, Tank,Silos, etc. as per Codes • Datasheets & Specifications • Vendor Data Evaluation/ Technical Bid Evaluation • Assembly, Manufacturing Drawings and Bill of Material for Fabrication • Equipment cost Estimation Assistance by providing Bill of Quantity	• Project Execution Plan/ Procedure • Contract Finalization • Kick-Off Meeting • Project Control • Ensuring-Engineering and Design work meets the Project/Customer Requirement, Quality, Schedule and Compliance	• Development of Intelligent P&ID's on SPPID software over conventional methods. • Preparation of instrumentation engineering database in Smartplant Instrumentation/ Aveva Instrumentation software. • Preparation of Electrical engineering database in Smart plant Electrical software. • Development of intelligent/non-intelligent 3D model on Cadworks, E3D, SP3D software's.	• Quality Plan • Quality Procedure • Quality Control • Auditing • Customer Feedback

General operating models



Category	MODEL 1	MODEL 2	MODEL 3	MODEL 4
Setup	MTES engineers deployed at customer site within customer-managed projects.	MTES project team working at customer premises with defined project scope.	Joint delivery model with MTES team partially on-site and partially from MTES engineering center.	MTES fully manages engineering projects from its home office, providing end-to-end delivery.
Customer Premises	Individual engineers integrated into client's existing team.	Dedicated project team managed in collaboration with client leads.	Hybrid setup – close coordination between customer engineers and MTES team leads.	Direct interface through project steering group or key account manager.
MTES Premises	Minimal offsite involvement.	Support functions (design, documentation, QC) from MTES office.	Strong backend support for analysis, 3D modeling, and documentation.	Full project execution managed by MTES engineering and design centers.
Type of Projects	Resource-based or small engineering tasks.	Specific project packages or discipline-based engineering projects.	Major multi-discipline or integrated engineering projects.	Full-scale project outsourcing, including design, documentation, and lifecycle support.
Customer Benefits	Quick mobilization of skilled engineers for workload balance.	Dedicated team improves project control and delivery speed.	Optimized resource utilization with cost efficiency and flexibility.	Complete outsourcing ensures scalability, reduced overhead, and global engineering expertise.
Maturity Level of Partnership	Staff Augmentation	Project Collaboration	Hybrid Partnership	Strategic Engineering Partnership

Our Clients

MTES



Thank You

We are ready to assist you

It was a pleasure presenting our story.
We hope to connect soon and explore new
opportunities together

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