



**BUILD CRAFT Engineers India Private Limited**

*Always dedicated and devoted*



## WHO WE ARE?

We **BUILDCRAFT Engineers India Private Limited** brings a wealth of experience to the construction and engineering sectors. Our journey began in 2019 under the name **SM Construction**, where we specialized in all aspects of residential, commercial, and industrial construction.

Following five years of successful operation, we strategically expanded our focus and formalized our engineering services. On October 16, 2023, we established BUILDCRAFT Engineers India Private Limited to address the evolving needs of the industry.

### ❖ **Our Expertise and Services**

Today, BUILDCRAFT specializes in delivering comprehensive engineering and project support solutions. We combine extensive industry knowledge with quality engineering practices to help your business move forward.

Our core services include:

- **Design & Detail Engineering:** Delivering precise and efficient engineering blueprints.
- **Staffing / Technical Manpower Supply:** Providing skilled professionals for your project needs.
- **Procurement Assistance:** Ensuring efficient acquisition of necessary materials and equipment.
- **Designer Supervision:** Offering expert oversight to maintain design integrity during execution.

### ❖ **Disciplines Covered**

Our highly skilled teams cover a wide range of engineering disciplines:

- Piping Designing & Detail engineering
- Civil Designing & Detail engineering

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- Structure (Steel & RCC) Designing & Detail engineering
- Electrical & Instrumental Design with Drawings
- Material Handling Plants
- HVAC Engineering Services
- MEP Design & Consultancy Services
- Ash Handling Plant
- Plumbing & Fire Fighting Engineering Services
- Preparation of As-built Drawings
- Digitization

❖ We offer a comprehensive range of engineering services utilizing industry-leading software and methodologies:

- **Basic Engineering:** Foundational design and planning services.
- **Details Engineering:** Detailed design and specification development.
- **P&ID and Isometrics with BOM:** Development of Piping and Instrumentation Diagrams (P&ID), isometric drawings, and accompanying Bills of Materials (BOM).
- **Stress Analysis using CAESAR II:** Advanced stress analysis for piping systems to ensure safety and compliance.
- **Surge Analysis using Bentley HAMMER:** Analysis of pressure transients (water hammer) in piping systems.
- **Structural Analysis using STAAD Pro:** Comprehensive structural analysis and design capabilities.
- **Piping in AutoCAD, 3D Model:** Detailed piping design and 3D modelling services using AutoCAD.
- **Tank & Vessel Design using PV-Elite:** Specialized design and analysis for pressure vessels and storage tanks.

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- **3D modelling and design & Fabrication and detailing Using Tekla:**  
Creates accurate and detailed 3D models for a wide range of structures, including steel, concrete, and other materials, handling both simple and complex geometries. Provides tools for detailing, automation, and generating accurate drawings and schedules for fabrication, particularly for steel. Helps in planning on-site execution, including delivery and crane locations.

## **OFFERED SERVICES**

### **DESIGN & ENGINEERING SERVICES**

**Basic Engineering for Water System, Compressed Air System, Utility Distribution system and conditioning chemical dosing system**

- PFD/P&ID Generation
- Equipment Selection,
- Pipe Sizing & Thickness Calculation,
- Technical Data Sheet/Specification,
- PMS & VMS.
- Assisting client in Technical Evaluation of vendors

### **Static Equipment Design:**

- Design of Pressure Vessel as per ASME Sec.- VIII/IS: 2825 by using software PV- Elite & manual calculations in excel.
- Design of storage Tanks as per API: 650 by using software and manual calculations in excel.

### **Piping Design Engineering:**

- Interconnecting & Interplant Piping for Steel Plant (Arc & Ladle Furnaces, Blast Furnaces, Vacuum Degasser, All types of Casters, and Cold & Hot Rolling Mills and By- product Plants), Chemical Plants etc.

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- Flexibility & Stress Analysis by using CAESAR-II
- Design of pipe Support & Foundation.
- Surge Analysis using Bentley HAMMER or Pipe NET & Design of Thrust Block.
- Isometric & BOM (MTO) generation.
- Pipe Fabrication detail drawing

### **Steel Structural Design with STAAD Analysis and Manual Design Calculation in Excel -+Preparation of GAD & BOM**

- Pipe Carrying Girders & Trestles.
- Belt Conveyor System including Gallery, Transfer Tower, Crusher House, Drive House, Shed over Track Hopper & Wagon Tippler Technological Structure etc.
- Industrial Buildings & Factory Sheds, Bunkers, Hopper etc. Technological Structures.
- Pressure Vessels & Storage Tank Structure with supporting ladders / Stairs & Anchor Bolt etc.

### **Civil (RCC) Design with STADD Analysis and Manual Design Calculations in Excel+ Preparation of GAD + PCC Detailing & BBS**

- Pipe Carrying Trestles Foundation & on ground pipe Support Foundation.
- Foundation of Trestle for Conveyor Gallery, Transfer tower, Crusher house & Foundation pf Crusher proper, Wagon tiple, Track hopper, Stacker-cum-Declaimer, MCC & Control room etc.
- Any type of Plant & Non-plant Buildings.

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- Under Ground & Semi-underground Reservoir with Pump House & Electrical Room
- RCC Elevated Reservoir.
- Pressure Vessels & Storage Tank Foundations.

#### **Material Handling Plants:**

- Layout, Flow Diagram & Profile of Belt Conveyor System.
- Mechanical GA of Conveyor, Transfer tower & Crusher house, Wagon tippler, Track hopper, Stacker- cum- Reclaimer etc.
- Equipment Selection & power calculation.
- Civil (RCC) & Structural (steel). Design & details Engineering.

#### **Ash Handling Plant:**

- Civil (RCC) & Structural (Steel) Design and details engineering.
- Dry and Wet ash disposal system.
- Bottom ash Hopper.
- Fly Ash & coarse Ash silo.
- Ash disposal pipe support.
- Compressor House.
- Ancillary structures.

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#### **MEP Design & Consultancy Services:** *Always dedicated and devoted*

- We are able to undertake complex MEP design and build projects at any level, up to major residential, commercial and industrial sector projects with high. We offer a full MEP design and build service for our clients using the most Innovative and energy efficient products to provide state-of-the-art Installations which save both time and cost throughout the construction phase and provide a cost effective and maintainable end product to our clients.

## Electrical & Instrumental Design with Drawings:

- Overall electrical HT & LT single diagrams (SLD) Preparation & Circuits Design.
- Flux Calculation & illumination Layout Drawing.
- Earthing Size Calculation, Earthing Layout & Layout of Earthing Protection System.
- Calculation of Cable Sizing & Cable Routing Layout Design.
- Calculation of Transformer Sizing, Battery with Charger, UPS etc.
- Control Panel Design.
- Preparation of Data Sheet of Cable, Transformer, HT & LT Motor, Bus Duct, DCDB etc.
- Calculation of Lightning Protection

## Plumbing & Fire Fighting Engineering Services:

Our plumbing services team handles all aspects of plumbing, water supply, Drainage, swimming pool filtration systems & firefighting works. Our plumbing Engineers design with an approach in influencing high water efficiency, Energy, fire protection, pollution systems and a sustainable site. We are able to provide assessments, recommend alternatives, and thus provide high-functioning systems that meet the client's very specific individual.

## Preparation of As-built Drawings:

### Digitization:

2-D Digitization from hard copy sources to AutoCAD Formats

### Documentation (Deliverables)

- PFDs P&IDs, Process Functional Description, Pressure loss calculation, line sizing & Thickness Calculations, Equipment and Materials Selection, Process Equipment etc.

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- Equipment Layout Drawing, Piping Routing Layout Design, Piping arrangement drawings, Details Pipe Sizing, Piping & support detail Drawings, Load Data Drawings, Civil Assignment Drawings, Line List, Value List Technical Data Sheet Pipe Fittings, Valves & In line Instruments, Stress Analysis Report & Iso-metrics.
- List Of instruments, I/O List for PLC, Alarm & Interlock List, Data Sheet of Instrument Loop Diagram, instrument Hook Up Diagram, Instrument Cabling Diagram, instrument Layout with Junction Box, PLC system Architecture, Cable Schedule with Bill of Quantities Ga & Sizing Calculation for Flow Element & Control Device, Control Schematics Drawing Etc.
- STAAD Analysis Report with Load Calculation and Manual Design Calculation Sheets, Structural Civil General Arrangement Drawings, Fabrication Details Drawing with BOM, RCC Design & Details drawing with BBS.
- Architectural Drawing.

### Project Experience & Case Studies

We possess extensive experience in providing specialized engineering, design, and construction support services for major industrial clients across India, including leaders in the steel and metals sector such as Vedanta, Tata Steel, and ArcelorMittal Nippon Steel.

Our portfolio highlights our capabilities in various engineering disciplines:

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Client	Project Location/Description	Consultant	Scope of Work	Project Status
Vedanta Ltd.	Jharsuguda, Odisha	Aneja Construction India Limited	Ash Dyke Engineering (Lagoon-2): Complete engineering design and drawing preparation.	Ongoing

Tata Steel Ltd.	Neelanchal Ispat Nigam Ltd.	Astha Engineers	5.5 MTPA Utility & Water Engineering Expansion: Detailed engineering and design services.	Ongoing
ArcelorMittal Nippon Steel (AM/NS)	Vizag (PP-3 Pellet Plant)		Engineering support services (drafting/draftsman support) for plant expansion and design activities.	Ongoing
Tata Steel Ltd.	Kalinga Nagar, Odisha	Astha Engineers	Piping GA (General Arrangement) and Detailed Drawing services.	Completed
Tata Steel Ltd.	Joda Mines (IOPP), Odisha	Astha Engineers	Piping GA (General Arrangement) and Detailed Drawing services for the Iron Ore Processing Plant.	Completed
Tata Steel Ltd.	Noamundi iron Mines (IOPP), Jharkhand	Astha Engineers	Utility and Water Engineering services for the Iron Ore Processing Plant.	Completed
Tata Steel Ltd.	Phase-1 Expansion (TCIL)	Astha Engineers	Utility & Water system Engineering services.	Completed
Nilanchal Ispat Nigam Limited	Detailed engineering of AC ducting & Piping	MEP Projects & Engineering Services Limited	AC ducting & Piping Layout & Detail Engineering	Completed
JSW Limited	Detailed engineering of AC ducting & Piping	MEP Projects & Engineering Services Limited	AC ducting & Piping Layout & Detail Engineering	Completed
Tata Steel Meramandali	Detailed engineering of AC ducting & Piping	MEP Projects & Engineering Services Limited	AC ducting & Piping Layout & Detail Engineering	Completed
Tata Steel-Global-KPO-Ph-2	Detailed engineering of AC ducting & Piping	MEP Projects & Engineering	AC ducting & Piping Layout & Detail Engineering	Completed

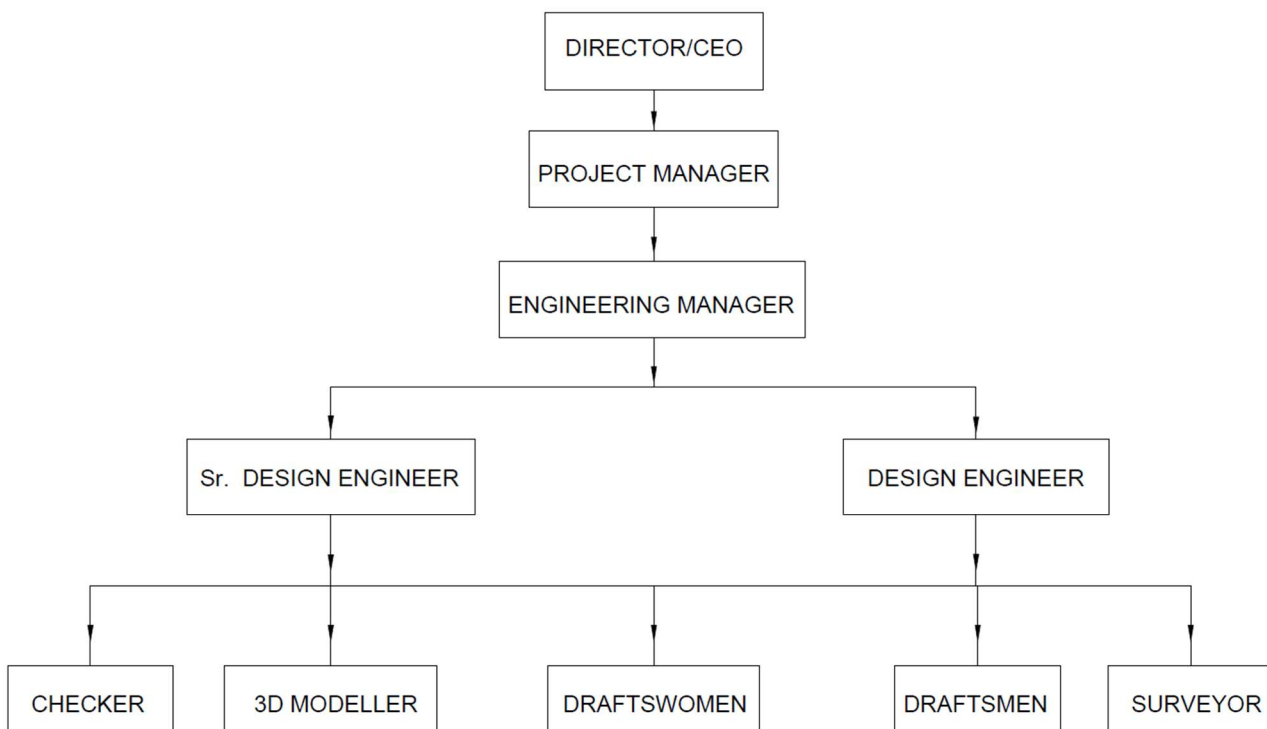
		Services Limited		
Tata Steel-Global-KPO	Kalinga Nagar, Odisha	Astha Engineers	Preparation of Fabrication Drawings for Steel Structures	Completed
Tata Steel-Global-KPO	Kalinga Nagar, Odisha	Astha Engineers	Preparation of Only All Sheeting Drawings	Completed
Bhilai Steel Plant	Bhilai, Chhattisgarh	Astha Engineers	Preparation of Design (G.A) Drafting	Completed

## Organizational Chart and Key Personnel

This chart outlines the project-specific team structure for our pipeline projects, emphasizing clear lines of authority and specialized roles.

### **I. Organizational Chart (Hierarchy Diagram)**

This diagram visually represents the project team and reporting relationships:



## REGISTERED OFFICE

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*Thank You*