

CiEnSe Global LLP

YOUR ENGINEERING PARTNER FOR STRUCTURAL DESIGN AND DETAILING SERVICES

ABOUT THE COMPANY:

An ISO 9001:2015 certified Civil Engineering Services Company based out of Bangalore, INDIA, that specializes in Steel Structural Design and Detailing

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SERVICES

STRUCTURAL ENGINEERING DESIGN

CONNECTION DESIGN

STEEL STRUCTURAL AND MISCELLANEOUS DETAILING

ESTIMATION AND MATERIAL TAKEOFF

COMPANY OVERVIEW

CiEnSe Global LLP is an Engineering Services company based out of Bangalore, the silicon valley of India, and is primarily focused in providing Civil Engineering Services specialized in Steel Structural Detailing across the globe.

We offer a wide range of services that include Analysis and Design of Structures, Connection Design, Material takeoff, Steel structural and miscellaneous detailing which makes us, a one stop solution option, to customers looking for end to end services on their structural engineering requirements.

We cater to a wide variety of projects and sectors viz., Industrial Structures, Pre-Engineered Metal Buildings, Material Handling Structures, Infrastructural, Oil & Gas, Boiler and Power plants etc.,

We recognize our customer's success as our success and are absolutely committed to it by identifying, developing and deploying the right kind of resources and talents on projects, adopting creative and innovative methods and usage of the latest cutting edge technologies.

POWER PLANTS

COMPANY PHILOSOPHY

VISION

MISSION

CORE VALUES

Attentions to Details, Flexibility, Innovation and Collaboration are our core values and defines our culture



SECTORS / INDUSTRY VERTICALS

RANGE OF SERVICES AND CAPABILITIES

			/	/	
	Structural Design	Connection Design	3D Modeling and Steel Detailing	Estimation & Material Takeoff	2D Drafting & CAD Digitization
✓ ✓ ✓ ✓ ✓ ✓	Conceptual Design Conceptual Layout Development	 Moment Connections Shear Connections Bracing Connections Column Base Plate Connections Connection Design Report Typical Connection Detail Drawings Connection Mark- up Drawing 	 3D Stick Modeling Advance Bill of Materials Connection Modeling Clash Checks Anchor Bolt Setting Plan and Details Embed Plan and Details Erection Drawings Shop Assembly Drawings Single Part Drawings Gather Sheets Shop and Field Bolt Lists Assembly and Part Lists MC files, dxf files, EJE files IFC files 3D Modeling and Detailing of Miscellaneous Structures Stairs, Ladders , Gratings Chequered Plates, Handrails and 	 Material Takeoff Quantity Estimation and Material Takeoff for Pre-Bid Services Material Takeoff for Planning Procurement of Steel Accurate Estimation and Material Takeoff services using 3D software Generation of Advance Material List Material Takeoff and Quantity Estimates for RCC works 	 CAD Digitization 2D CAD Drafting services for Structural, Civil and Architectural Disciplines As-Built Drawings Conversion of PDF / Image / TIFF format Drawings to CAD Drawings Conversion of Paper Sketches to CAD format Engineering Conceptual Design Sketches to CAD Drawings 2D Steel Detailing - Erection and Shop Fabrication Drawings with BOM
			Guardrails ✓ As-built Drawings		

INTERNATIONAL CODES AND STANDARDS

- ✓ AISC (American Institute of Steel Construction)
- ✓ AISC Detailing for Steel Construction
- ✓ NISD (National Institute of Steel Detailing)
- ✓ IS (Indian Standards)

- ✓ BS (British Standards)
- ✓ AS (Australian Standards)
- ✓ AWS (American Welding Society)
- ✓ CISC (Canadian Institute of Steel Construction)
- OSHA (Occupational Safety and Health Administration)

STRUCTURAL ENGINEERING DESIGN

CiEnSe Global also offers engineering design services for civil and structural engineering. We have qualified and experienced engineers who perform as well as verify the designs produced. We ensure a seamless co-ordination between engineering design and the detailing teams so that the designs performed are in line with modeling, detailing and final drawing outputs.

We offer a wide array of structural engineering services for structures ranging from Pre-Engineered Metal Buildings to heavy steel and concrete structures of the industrial sector. Structures are designed to meet local code requirements. CiEnSe Global works in deep collaboration to leverage the required man power and talent based on the job demands.

We offer engineering services for the following type of structures.

- Pre-Engineered Metal Buildings
- Pipe racks, Cable racks
- Process Structures
- Miscellaneous Pipe supports
- Cable tray supports
- Pump Foundations
- Tank Foundations
- Miscellaneous steel platforms
- Shelters
- Substations
- Commercial Buildings

Equipment Foundations for Horizontal & Vertical equipment

Our other services as part of the engineering phase include 3D modeling & 2D drawings as below

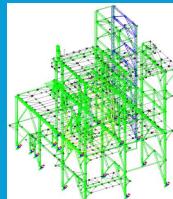
2D Drawings

- Under Ground Drawings: Pavement Layouts & UG Layouts
- As built drawings

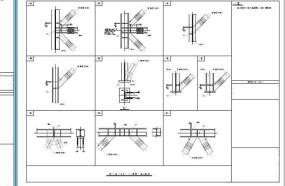
3D Modeling

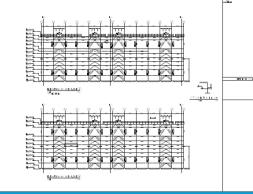
- Steel structures modeling
- Equipment foundations modeling
- Underground Civil works
- Cable Tray support Modeling
- Special pipe support modeling

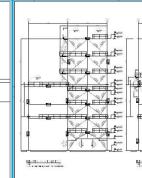
Our team has the capabilities in designing steel and concrete structures and has the knowledge of various design codes. Among them, CiEnSe has particularly extensive knowledge in AISC 360, ASCE 7, and ACI 318. We use STAAD PRO, ETABS software for performing structural design. We ensure manual verifications of all software outputs as part of Quality procedures.

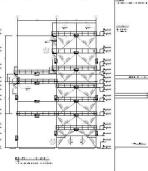












CONNECTION DESIGN

We offer a comprehensive range of steel connection design services and solutions that are safe, economical, erectable and efficient connections. We have experienced structural engineers who are capable of providing connection design services as per the customer's design requirements and within the stipulated timelines.

Below is the list of typical deliverables that are included as part of our standard connection design package wholly or partly depending on the scope of work.

- Detailed calculation report (with supporting calculations, tables and sketches) for each of the typical connection types such as Column Base Plate Connections, Beam-Column Connections, Beam-Beam Connections, Bracing Connections, Hanger Connections etc., designed in accordance with the intent or criteria and the forces specified in the design drawings.
- Typical Connection Detail drawings in .pdf or .dwg formats with tabulated details for different member sizes where necessary, under respective typical connection category.

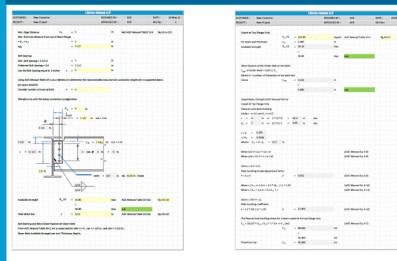
The connection design package thus separated into the calculation and the drawing sections as above, not only gives the detailer a quicker access to information he needs but also presents a well organized package to help get designer approvals faster.

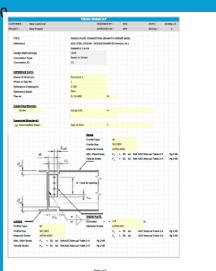
Our range of design spreadsheets that are built in accordance with codal requirements and validated by industry experts ensures you get the connection designs done quickly and easily for a wide variety of structures.

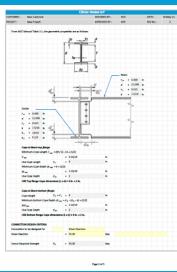
The unique and best in class user interface designed especially for ease of receiving user inputs in graphical format, the built-in functionalities of revision handling, saving etc. through the usage of VBA programming, offers these spreadsheets an edge and sets them apart from the rest.

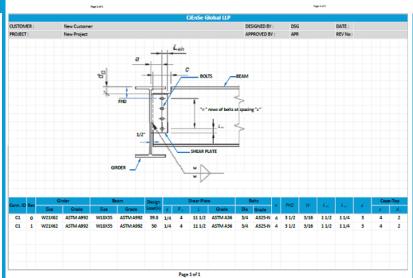
All our design spreadsheets are built around the concept of controlled automation that provides the best of both worlds of having versatility and control on calculations that excel spreadsheets offer, topped up with a level of sophistication that functional automations can bring-in by the use of VBA programming.

Therefore you are assured of accurate and error-free design and reports in quickest possible time when you choose us for your connection design projects.









STEEL STRUCTURAL AND MISCELLANEOUS DETAILING

We specialize in 3D modeling and production of Erection and Shop Fabrication drawings for Steel Structures and Miscellaneous steel like stairs, ladders, handrails, gratings and chequered plates according to the given project standards / customer standards, while maintaining the general guidelines set forth by different institutes / societies / associations / confederations in different parts of the world. Drawings are produced in Imperial or Metric measurement formats depending on the requirements.

In every project, we ensure a constant and timely communication with our customers irrespective of their geographic time zones and be available live time or with maximum overlaps.

Before delivery, each and every deliverable goes through the required quality checks and is ensured to be defectfree, aesthetically presentable and meets all the customer requirements.

The deliverables package issued during various stages of the project is generalized as below but can also be customized based on customer requirements.

- 3D Stick Model, Advance Bill of Materials (ABM) / Advance Material List (AML)
- Weekly submissions of 3D Model, Project Status Report and RFI Log for review of project progress, bottle necks if any and for quicker and timely resolution of any critical information needed.
- Every IFA (Issued for Approval) package consists of a Transmittal, Shop fabrication drawings with BOM / Erection drawings and Master Drawing Log
- Every IFC (Issued for Construction) package consists of a Transmittal, Shop fabrication drawings with BOM / Erection drawings, Master Drawing Log, NC files, DXF files, KSS file, Shop & Field Bolt lists, Material List, IFC file and any other reports as necessary.
- As-built drawings (if part of SOW)
- 3D Model exported to any standard format as necessary for interoperability or model integration into other applications

We ensure 100% quality in all our deliverables by following a systematic review process at every stage of

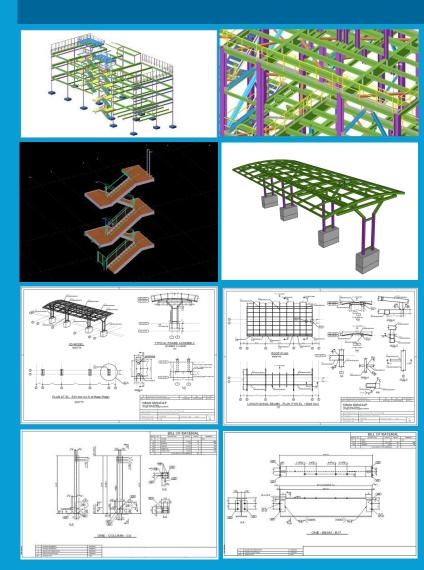
the project.

We adopt a very efficient review process where a detailed model check is carried out in parallel with the modeling activity and completed 100% before numbering and generation of drawings for scrubbing.

The drawings thus produced by this process are perfectly in line with the design drawings and accurate enough so that only minimal scrubbing time is required to clean up drawings. This helps us to reduce the overall turnaround time significantly and also produce Quality outputs.

Generic checklists and project specific checklists used in combination at various stages of a project, ensures all project requirements are addressed, resulting in predictable quality outputs of the highest standards.

We specialize in Tekla Structures for providing 3D modeling and Detailing services of Steel Structures.



ESTIMATION AND MATERIAL TAKEOFF

We offer pre-bid estimation and takeoff services which can assist our customers with quick, reliable and accurate data that can be readily plugged into their bids and increase chances of winning. We leverage the 3D modeling technology to produce cost effective services within the stipulated timelines.

Customers can leverage our services and outsource their tedious takeoff works that not only helps them save time and money but also be more competitive. Availing our services also enables our customers to bid more jobs. Our experienced team has the required skills and knowledge and can provide cost effective services within the required timeframes.

The following are the list of deliverables.

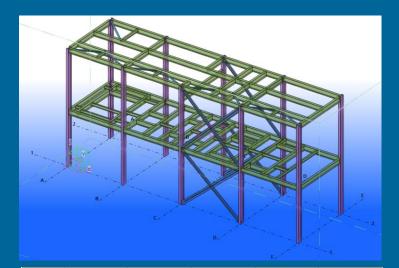
- 3D Stick Model
- Advance Material List (AML)
- Cost and Schedule estimate

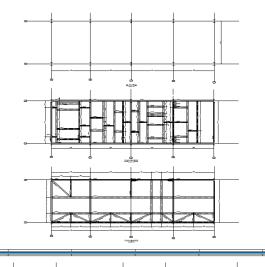
When our customers avail takeoff services from us, on project award, they also get to save some additional time and costs in availing detailing services from us, as we can readily use the already built and available stick model, to proceed with the next steps in detailing.

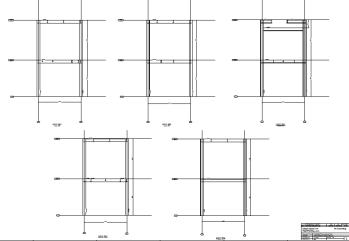
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Handrails	2nd Floor Matthem Handrails	Length	34.2			14.9	Kg/m	\$10
Chequered Plate	1st Floor Platform fimm Chequered Plate (Approx. 25% of floor area)	Area		12.15		53.2	tgisşe	646
Chequered Plate	2nd Hoor Rations Genn Chequered Plate (Approx. 50% of foor area)	Acea		243		53.2	Kg/sq.m	1293
Stair Structure	Stair Stringers (SMB 200)	Length	23.8			22.5	Kg/n	460
Stair Structure	Stair Landing Beams (SMB 200)	Length	29.2			22.5	Kg/m	645
Handhalls	Stair Flight Handnails	Length	25.8			8.76	Kg/m	182
Handralls	Stair Landing Handhails	Length	14.6			14.9	Kg/n	218
Chequered Plate	Stair Tread Chespaniel Plates	Area		8.45		53.2	Kg/sq.m	450
Chequered Plate	Stair Landings Chequered Plates	Area		26		53.2	Kgisque	404
Steir Structure	Stair Columns (SMB 250)	Length	12.65			37.3	Kg/n	472
Tetal			104	53				5,799
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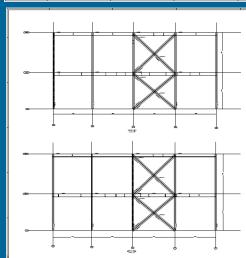
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2D DRAFTING SERVICES

At Ciense, we also offer 2D Drafting and CAD digitization services. Our team of qualified and experienced engineers and drafters are capable of providing high quality and cost effective 2D CAD drafting services with a quick TAT or turnaround time.

We offer top quality 2D drafting services that meets the industry standards and in-line with the customer expectations. We follow a systematic and streamlined 2D drafting process that enables us to provide quality services within the stipulated timelines.

Be it hand-drawn sketches / scanned image inputs / legacy drawings / red-line mark-ups etc whichever format the inputs are, our team of qualified engineers and drafters with years of domain expertise meticulously work through understanding the inputs and every aspect of the customer requirements, and produce top quality detailed engineering CAD drawings that help Architects, Engineers and fabricators on their design and fabrication projects.

Some of our 2D drafting services include preparation of Structural Design Drawings, Erection and Shop Fabrication drawings, As-built drawings, conversion of PDF/TIFF/Hand drawn sketches/legacy drawings etc., to editable CAD digital formats like "dwg". With the drawings completely redrawn and checked, we ensure the results are clean, accurate, presentable and inline with the customer expectations.

PROOF CHECKING / 3rd PARTY ENGINEERING REVIEW SERVICES

We also offer Proof Check or 3rd Party Engineering Review services related to Structural design and detailing projects that includes the following

- Study of the technical specifications, design criteria and other project requirements
- Compliance to provisions of technical specifications and design criteria.
- Whether concepts and methodologies adopted are correct and in-line with the design intent and requirements.
- Compliance to provisions of local design codes and standards
- Verify correctness of results and suggest improvements if any
- Conformity between design calculations and engineering drawings
- Clarity and adequacy of details, drawing content, general notes, aspects related to constructability etc.

In addition, we also undertake structural inspection works & related services for the issue of **Structural Stability Certificate** duly certified by a registered Structural Engineer.

For any enquiries, please contact

CiEnSe Global LLP

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