

# L&T MMH, India's market leader in Engineering, Procurement, and Construction of Metallurgical Projects chose Wrench

## About the Client

L&T Metallurgical and Material Handling (MMH) is India's leading turnkey EPC solution provider of metallurgical projects and one of the several business verticals of L&T Construction, among the world's top 15 contractors, and India's largest construction organization.

MMH has the capability and expertise to undertake detailed engineering, procurement, manufacture, supply, construction, erection, and commission projects.

## The Challenge

L&T MMH develops custom-build comprehensive systems and plants for Ferrous, Non-ferrous Industries, and material handling plants on an EPC basis and delivers the project on time to the satisfaction of their customers. However, with shrinking timelines, L&T MMH felt the need to embrace increased digital tools to speed up execution and exceed customer expectations.

As these projects are custom-build, there is need for a lot of collaboration and coordination with multiple internal departments, external consultants, equipment suppliers, and the client. The project-specific designs, drawings, and specifications need to be reviewed by multiple departments and the client before they are taken for manufacture or construction.

Based on a study, L&T MMH identified the following needs during project execution:

- The overall project schedule was developed in Primavera with the key milestones identified with schedules and status of the milestones captured manually and updated in Primavera by the concerned planning engineer manually for project reviews. During reviews, delays were identified, revised completion dates were updated manually and published to the team over email.
- Centralized document management across the life cycles of all projects as a structured database.
- Availability of the right information to the right personnel at different levels for effective decision making and implement preventive/corrective actions.

S.No.	Document Number	Client Document Number	Document Description	Budgeted Hours	Actual Hours
1	019133-41884-CS-PY-0001	7012-115-PAW-B-001	GENERAL PLOT PLAN FOR COAL MINING PROJECT - KERENDARI ST	80.00	2.00
2	019133-41884-CS-GA-0005	7012-115-PAW-B-005	TYP CROSS SECTION DETAILS OF THROUGH CONV. GALLERY	120.00	13.45
3	019133-41884-CS-GA-0006	7012-115-PAW-B-006	TYP CROSS SECTION DETAILS OF PIPE CONV. GALLERY	160.00	0.30
4	019133-41884-CS-GA-0011	7012-115-PAW-B-011	G.A. & LOAD DATA OF TRANSFER POINT ADIPP-3	160.00	104.00
5	019133-41884-CS-GA-0021	7012-115-PAW-B-021	G.A. & MARKING OF CONV. SK 1A/1B	200.00	44.10
6	019133-41884-CS-GA-0024	7012-115-PAW-B-024	G.A. & MARKING OF PIPE CONV. PC 1A/B WITH ELEVATION AND PLAN DETAILS	400.00	165.50
7	019133-41884-CS-GA-0025	7012-115-PAW-B-025	G.A. & MARKING OF PIPE CONV. PC 2A/B WITH ELEVATION AND PLAN DETAILS	400.00	127.10
8	019133-41884-CS-GA-0027	7012-115-PVC-B-107	PIPE CONV. PC 1A/1B & PC 2A/2B - STRUCTURAL GA OF PLATFORM STRUCTURE FOR SUP. HDB & LOW BEND PIPE CONVEYOR	400.00	56.00

## The Solution

Wrench SmartProject was set up and configured as per the business processes of L&T MMH to address the above challenges. The solution included:

### Integrated project planning and monitoring:

- The master project plan from Primavera was imported into Wrench SmartProject and key milestones linked to the activities of the EPC deliverables. The actual status of the milestones was automatically updated on completion of the activities, so potential delays could be seen online for necessary corrective actions to be taken.
- The engineering, procurement construction, and commissioning deliverables were linked to their respective workflows, and the detailed schedule for each activity in the workflow was specified in Wrench SmartProject. The actual status was automatically captured when the activity in the workflow was completed and the rolled-up status was updated against the linked milestone in the project schedule. Any delay can now be identified immediately, necessary corrective action taken, and revised dates of the pending work published to the resources assigned automatically.
- With construction quantities updated into SmartProject (using mobile devices), the progress of construction can be automatically updated in the same system. Corrective actions can now be taken instantaneously, based on the daily progress reports, that also prevents delays.

### Realtime dashboards and drill-down reports:

- Progress is captured automatically as the work progresses through the workflow and updated on the deliverable (or package S-Curve). If there is any delay in progress beyond acceptable limits, the planner can take necessary preventive action, by reforecasting the remaining activities and automatically intimating the resources.

### Engineering document management with digital workflow:

- Wrench enabled real-time collaboration with digital workflows, by integrating multiple disciplines, external consultants, and the client on Wrench SmartProject, which allows for all comments to be captured digitally and with automated notifications, which helps prevent delays.
- Vendor drawings can now be planned and collaborated online through workflows and monitored online. This helps prevent delays in vendor drawings.

**" Wrench has brought a dramatic change in our Engineering Culture. Wrench Smart Project which is powered with fully custom built tools for faster configuration and deployment in all our complex EPC projects to enable us to manage multi-disciplinary Engineering through workflow management & communication with various stakeholders viz. customers, consultants, suppliers, service providers in addition to all project personnel in L&T - MMH. Wrench has ensured timely delivery and responsibility tracking mechanism enhancing productivity and operational governance. Its capability of integrating with live dashboards brought a unique flavor of digital engineering culture. Wrench Smart Project is effectively deployed across all our current EPC projects with customized reports for effective management, monitoring and reviews to deliver in time to our customers "**

**Ranjit Ghosh,**  
**G.M & Head – EDRC, L&T MMH.**

**Currently, L&T MMH is running 14 projects in Wrench SmartProject.**



### Communication management:

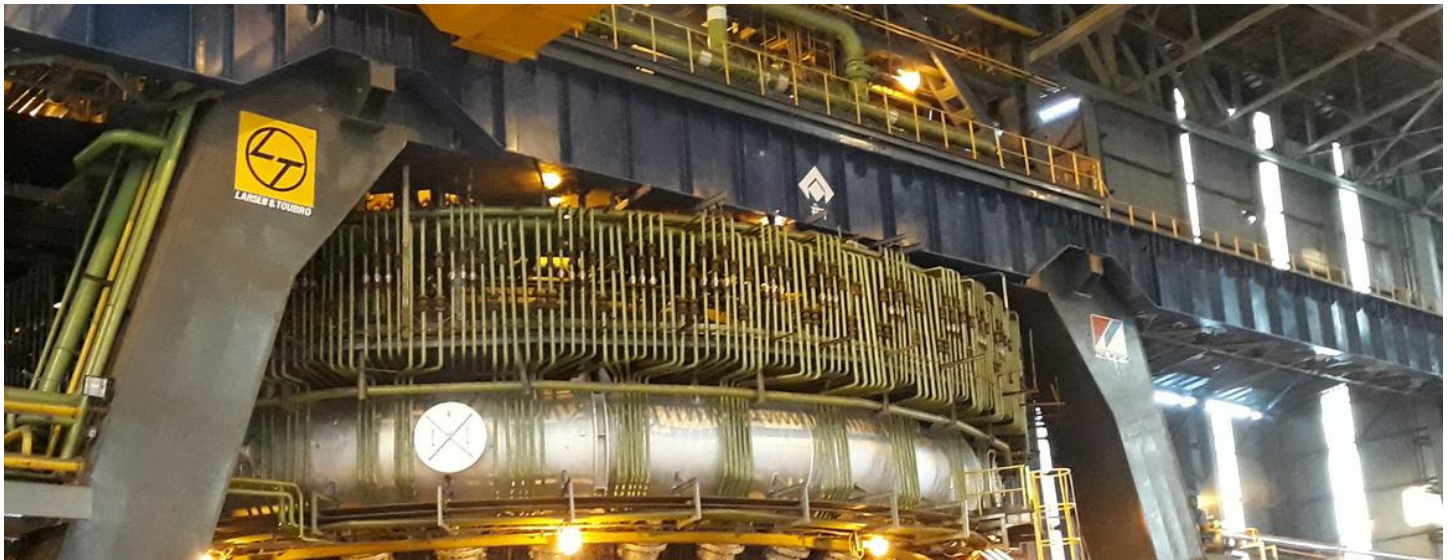
- All project communications (such as emails, RFI's, etc.) sent through MS Office 365 can be planned, monitored, and archived in Wrench SmartProject. Automated notifications have also been set up, in case of delays.
- All users use the timesheet functionality to log in their daily activities, so that the manager knows the accurate status of the work done by the various resources and teams.



## Integrated Project Monitoring and Control

At first, L&T MMH opted to implement Wrench SmartProject to plan and monitor their engineering deliverables & project communication, integrated with their existing legacy procurement management system and construction monitoring system. However, once they found that Wrench SmartProject has the facility to track, capture, and manage both procurement and construction activities as well as engineering i.e., activities planned by the contractor, with the site engineer able to directly update the quantities (with photos from the site, etc.) they decided to shift their procurement and construction monitoring tasks to Wrench SmartProject.

Now they are able to manage their entire project process from within SmartProject, which is extremely efficient across the board; for example, earlier, documents and drawings were stored in shared 'local' networks which were only accessible within the L&T network but now SmartProject's cloud-based access allows L&T's engineers to easily access documents from home or anywhere around the globe.



## The Benefits

After implementing Wrench SmartProject, L&T MMH has seen a complete transformation of their business. They are now able to ensure that all project deliverables are efficiently planned, monitored, and controlled. They are able to anticipate delays and re-forecast deadlines (i.e., revised plans), and project managers have complete control of all aspects of their projects, across engineering, procurement, and construction.

The biggest benefit L&T-MMH has seen after implementing Wrench SmartProject is that they can streamline all their processes and standardize all their deliverables including their mechanism of measurement and monitoring. They have been able to move to a digital mode of execution, working smoothly with their teams online (client, engineering team, external consultants, procurement, construction, and site teams) and between all their disciplines transparently, with online access to the latest project management information through dashboards, drill-down reports, and audit trails.



[www.wrenchamericas.com](http://www.wrenchamericas.com)

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