

Case Study



LTC
SOFTWARE SOLUTIONS

GARRISON
STEEL

Custom Tekla PowerFab Labeling System Steel
Garrison Steel

Industry: Structural Steel Fabrication

Technology: Tekla PowerFab | Custom Reports | Zebra Printers

Solution Type: Production Workflow Automation

Company Overview

Garrison Steel is a premier structural steel fabricator and erector specializing in large-scale projects including stadiums, schools, and major commercial structures.

As part of their fabrication and erection process, Garrison applies detailed labels to steel assemblies and inventory components. These labels include job numbers, assembly identifiers, purchase order information, and heat numbers to ensure accurate identification during fabrication and field installation.

These labels are critical for coordinating production, managing inventory, and enabling field teams to quickly identify components at construction sites.

To support these workflows, Garrison relied heavily on Tekla PowerFab as their primary production planning and tracking system.

Challenges



System Limitations

- Production teams had to export KISS files from detailing systems
- KISS files then had to be imported into a separate third-party labeling application
- Staff needed to search through complex application fields to find the correct labels
- Labels had to be manually selected and printed

Operational Risk

- Any updates inside Tekla PowerFab invalidated previously printed labels
- Production staff had to repeat the entire workflow process
- Duplicate data existed across two separate systems
- Time-consuming process slowed the production floor

Objectives



- Eliminate the need for a third-party labeling application
- Integrate label generation directly into Tekla PowerFab workflows
- Reduce manual steps required for production staff
- Ensure label data always reflects live production data
- Enable fast printing to Zebra industrial label printers
- Allow Garrison staff to modify and maintain reports internally

The Solution



Production Workflow Integration: LTC Software Solutions developed two custom reporting tools directly within Tekla PowerFab:

1. Production Tracking Labels for steel assemblies
2. Inventory Labels for material tracking

These reports allow users to generate labels directly from the production workflow with only a few clicks.



Industrial Label Printing

Labels are automatically formatted for 4" x 3" Zebra printers, allowing production teams to quickly generate durable shop-floor labels.

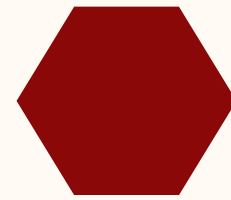


Flexible Report Editing

Garrison can now modify the label reports themselves, allowing their team to refine the workflow without external software changes.

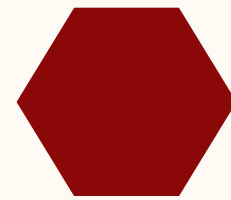
The Results

Simplifying the Fabrication Labeling Process



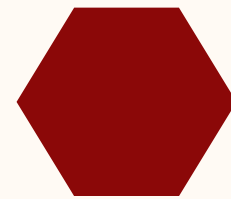
Production Efficiency

- Labels generated directly from live Tekla PowerFab data
- No need to export or import KISS files
- Eliminates duplicate databases and data synchronization issues



Workflow Automation

- Print labels in seconds during production
- Reduce manual searching and filtering
- Maintain a single source of truth for production data



Technology Environment

- Tekla PowerFab native reports
- Zebra industrial printers
- Integrated fabrication workflow

Business Impact

Operational Results

Production staff can now generate labels quickly and easily

Most manual steps in the labeling process were eliminated

Label accuracy improved due to live data integration

Measured Impact

50–60% time savings for employees performing labeling tasks

IT Simplification

Third-party labeling application completely removed

Reduced system complexity in Garrison's IT environment

Fewer integration points and maintenance requirements

Looking to Optimize Steel Fabrication Workflows?

Get In Touch

LTC Software Solutions helps steel fabricators improve production efficiency with custom tools built directly inside the software platforms they already rely on. From Tekla integrations to automation tools and production workflow improvements, our team helps fabrication companies operate faster and more efficiently.

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