



Management Services

Management Solutions
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Management Consultants to the Precast Industry

RESULTS IMPROVEMENT BULLETIN

PRECAST BUSINESS RESULTS IMPROVEMENT BULLETIN

Precast Business Results Improvement Bulletins are published by MJS Management Services. Additional bulletins that summarize current management challenges and solutions for the precast industry can be found at www.mjsmanagement.net.

MJS Management Services is a consulting firm that works exclusively with clients in the precast industry to improve business performance and results. For assistance with this or other management challenges please call 206-388-5209 or contact us by email. Visit our web site for a full description of the services we provide.

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LEAN PRINCIPLES FOR PRECAST

At the recent PCI convention strong interest was shown in lean manufacturing and management principles. With justification, as the key objectives of the lean approach – waste elimination and continuous improvement – are easy to understand and lead to improved performance. Lean concepts can be applied in all production and office functions to generate significant increases in throughput, quality and productivity.

With our in-depth knowledge of precast business issues and processes, MJS Management Services is an ideal choice of a consulting firm to assist you to understand and implement lean principles in your organization. We can help you get started with lean or provide resources to accelerate progress on current lean projects.

Like most management disciplines that originate from repetitive manufacturing industries, lean principles have to be adapted to best meet the highly customized environment faced by precast/prestressed producers. With our extensive precast industry experience, we are ideally positioned to help precast producers to quickly gain the benefits of the lean approach.



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LEAN MANUFACTURING BACKGROUND

Many manufacturing and business improvement concepts such as TQM and business process re-engineering become popular for a year or two then fade from view. By contrast, lean principles continue to be widely adopted. A vast amount of lean information is readily available through the internet, books, consultants and training programs.

The lean approach provides ways to do more with less while doing better at satisfying customers – some key concepts are:

- Define value from the customer perspective, identify the value stream, and introduce flow (small lot, continuous operations), pull (produce to demand rather than inventory) and perfection (no waste in the value stream).
- Eliminate waste, typically from one of 7 sources: overproduction, waiting, unnecessary material movement, over processing/over design, extra inventory, unneeded motion by employees and defective outputs.
- Adopt lean tools including 5s/6s, value stream mapping, 5 why's, mistake-proofing, visual management, cells, transparency and others.
- Work quickly to achieve results using multidisciplinary teams.
- Continuous improvement.

Many organizations adopt Six Sigma concepts to augment their lean programs. Six Sigma means defect/error free output (both products and services) and is achieved by reducing variation through structured problem solving and statistical analysis.

PRECAST/PRESTRESS PRODUCERS ARE RIPE WITH WASTE REDUCTION OPPORTUNITIES

The high degrees of product customization and lack of repetition found in precast creates much waste that can be identified and reduced through lean management. Significant opportunities are available in all facets of production but we've included examples from all disciplines to highlight the wide range of benefits available from the lean approach.



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Common Examples of Waste in Precast/Prestressed

Total Business

- Problem or unprofitable projects. Improve risk analysis processes to keep unprofitable projects out of the system and to better manage high risk (scope, complexity, schedule, tough customer) projects.
- Unplanned or disorganized approach to executing the project. Incomplete project plans. Problems not anticipated and dealt with before they become a crisis.
- Meetings – too many people, lack of preparation, too lengthy, unclear objectives and agenda.
- Over communication – dissemination of the wrong type of information to the wrong people, exacerbated by email.

Sales

- Unproductive sales activity (pursing unproductive leads, estimating and quoting projects with low priority of success).
- Inadequate risk analysis that allows problem jobs into the system.
- Unnecessary paperwork and reporting.
- Time consuming internal estimating, proposal processes.
- Time consuming processes to turn sold jobs over to operations.

Estimating

- Estimates prepared to an unneeded level of detail.
- Historical estimates and standards not available leading to duplication.
- Estimating standards out of date.

Project Management

- Too much paperwork.
- Scattered information and poor communication.
- Customer not held accountable to their commitments.
- Incomplete project plans that let items fall through the cracks.



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Engineering and Drafting

- Scattered information and poor communication.
- Poor scheduling of work and resource plans.
- Poor coordination between design, drafting, production and field.
- Outputs not operations friendly – format, content.
- Over design and specification of non-standard materials.
- Designs that are awkward to produce and erect.
- Re-drawing.
- Standards not fully employed.
- Errors in design, shop drawings or material lists.

Production

- Underutilizing flow and pull concepts.
- Shop drawings not available, unclear or incorrect.
- Waste in production processing (waiting for drawings, work instructions, concrete, other materials).
- Disorganized work space, improperly maintained equipment.
- Lack of repetition (e.g. produce in erection sequence rather than optimal production).
- Unclear work instructions.
- Incorrect materials.
- Double handling of raw materials and finished goods.
- Production sequence not optimized so wasted forming materials, set up time and production time.
- Inadequate quality.
- Facility lay out deficiencies – plant and yard.

Field and erection

- Production and design/drafting quality issues.
- Missing erection materials.
- Poor work planning.
- Delivery problems.



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Administration

- Unnecessary paperwork and reporting.
- Double checks and duplicate handling that add no value.
- Late or poorly formatted management information, inefficient systems.

HOW WE ADD VALUE TO LEAN INITIATIVES

Our practical approach and in-depth industry experience provides many benefits to precasters who want to gain from lean principles

An item at the top of every precaster's strategic plan is to improve competitiveness through faster response, lower costs and higher quality. Best and long lasting results are achieved when lean principles are adopted as a component of overall strategic direction. We help senior management to clarify the expected benefits of a lean commitment and to integrate lean efforts with other company change programs in technology, standardization, people development/training and equipment upgrades.

Our extensive understanding of the total process/system for a precast business means we can help quickly identify high payback areas for waste reduction. Additionally, the total process perspective allows us to identify instances where waste is created by a preceding process.

Our knowledge of industry best practices allows us to provide sound suggestions to improve flow, introduce error-proofing and other important concepts. We know the technology available to precasters to eliminate waste.

We understand the management commitments, resources, project plans and training needed to succeed with lean management.

Finally, as with all the projects we take on with clients, we concentrate on the delivery of results rather than process. So our measure of success is using lean principles to generate better performance from your business.