

KNOWLEDGE WORK RABIT™ CASE STUDY

MARCH 2013

In Just 12 Weeks, Machine Shops Lifts Production from 100 to 160 Valves Per Month

CHALLENGE

Key client demands 5x–10x production output.

Based in Houston, Texas, Reliable Machinist Corporation (RMC) is a family-owned provider of precision machining and fabrication services to the oil and gas industry. Thanks to the growth in North American oil field exploration and production, RMC's biggest client demanded dramatically more gate valves, placing firm orders for 160 per month and forecasting a need for as many as 220 a month. But RMC's usual gate valve output was 20–50 per month and even with costly overtime, the firm was only able to reach 100/month. Without a major acceleration of its line, RMC would face significant shortfalls.

SOLUTION

Implement RABIT™ and unplug bottleneck by reducing non-value added work, engaging new performance methods

Pinnacle Strategies organized a Rapid Analysis and Bottleneck Improvement Team (RABIT) that assessed the situation on the shop floor and arrived at three-part program for producing more work, faster:

PROACTIVE SCHEDULING Instead of clogging the line with new work based on available inventory, RMC “choked the release” to match the work rate to the speed of the bottleneck—the milling machine that dictated the pace of the entire process. In addition, a local scheduling board was created to communicate upcoming orders to operators so that subsequent jobs could be staged while current work was in progress.

STANDARDIZE WORK Once the bottleneck had been identified, Pinnacle consultants applied a “pit stop” mentality to ensure that milling machines were doing what mattered most: cutting chips. Anything else was treated as non-value added work that was reduced, eliminating “finding time” by moving tools and gauges closer to the machine, and redesigning the work space to reduce operator movements/walk times. Further, operators from non-bottleneck machines were cross-trained to support the needs of the bottlenecks.

CLIENT OVERVIEW

REGION

North America

INDUSTRY

Precision machining for the oil and gas industry

CUSTOMER PROFILE

RMC is a Houston-based machining and fabrication business that distinguishes itself with its rapid response capabilities.

BUSINESS SITUATION

When its leading customer demanded more gate valves, RMC needed to ramp production without increasing its operations costs.

SOLUTION

Pinnacle Strategies applied the RABIT process that unclogged bottlenecks to accelerate the workflow.

RESULTS IN NUMBERS

60% IMPROVEMENT IN GATE VALVE PRODUCTION

INCREASED PRODUCTS PER MONTH FROM **100** TO **160** IN JUST THREE MONTHS

0 NEW MACHINES REQUIRED TO INCREASE OUTPUT

APPLIED STRATEGIES EXPECTED TO YIELD **220** GATE VALVES/MONTH

PERFORMANCE MANAGEMENT With Pinnacle, RMC created a visual performance management system that revealed the true pace of production and alerted operators to upcoming orders for which they needed to prepare. Weekly meetings and daily coaching helped managers prepare for upcoming work and communicate their needs more effectively with operators.

RESULTS

60% improvement in gate valve production

After only three months of applying the new performance methods, RMC increased production of gate valves from 100/month to 160/month while eliminating Sunday overtime. The new policies are expected to yield 220 valves/month without requiring any new investment in machines or any increases in operating expenses. According to the RMC operations manager, the changes have brought qualitative improvements to the work environment as well: "I am now more knowing," the manager said. "I am no longer on edge."

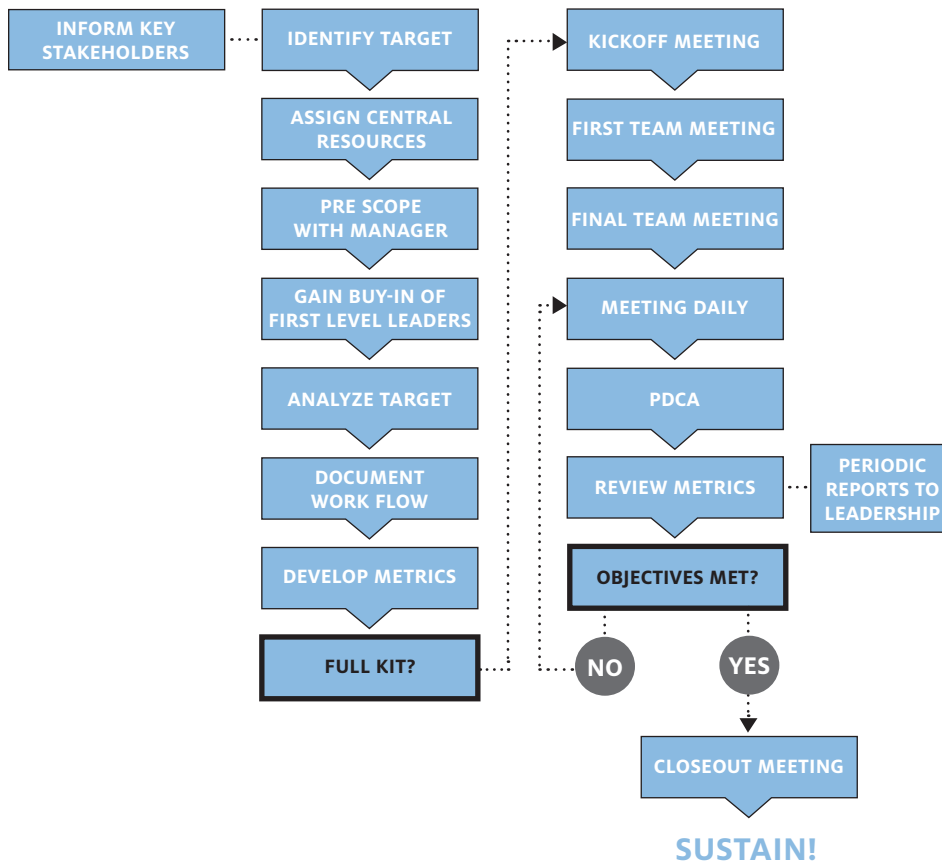
The **RABIT** approach identifies process bottlenecks and implements a strategy that relieves them quickly, usually within a matter of weeks. It uses a proven, built-from-within, "focused team" approach to make an immediate, significant impact on production processes.

Clients who have used the **RABIT** process report rapid results that include:

- Production increases of at least 20% in two months without additional costs
- Labor productivity increases and associated reduction in costs
- Improvement of on-time delivery performance



RABIT PROCESS FLOW CHART



BEST PRACTICES SOLUTIONS

Pinnacle Strategies is an international management consulting firm focused on operations management excellence. We work with organizations to increase shareholder value by developing high-performance business processes that significantly enhance productivity, reduce costs and time to market, improving profitability and accelerating sustainable growth. Pinnacle Strategies offers results-driven consulting solutions in the areas of performance management, project management, operations management, and supply chain.

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