

THROUGHPUT IMPROVEMENT CASE STUDY

JULY 2013

Subsea Component Manufacturer Boosts Throughput by 171% and Generates \$9 MM

CHALLENGE

Supplier output falling far short of demand, delaying shipments

Under its contract with FMC Technologies, a leading global provider of technology solutions for the energy industry, a key supplier provides pressure sensors for FMC's subsea flow meters. But throughout 2012, the sensor throughput averaged less than fourteen units per month, falling far short of total market demand of 40–45 unit/month demand, thus constraining FMC's production and threatening their obligations to their own clients.

SOLUTION

Find and remove bottlenecks one by one

Pinnacle Strategies led the key supplier and FMC through a two-part process that started with visual project management process and was followed by the systematic resolution of multiple bottlenecks in the workflow.

Upon arrival on site, Pinnacle implemented an improvement strategy that focused on the most important opportunities:

SHARE THE URGENCY First, the key supplier had to understand FMC's pain. Shortfalls in the pressure sensors were imposing delays on flow meter output, placing FMC at risk for penalties for late delivery.

IMPROVE DEMAND INFORMATION At FMC, sales and operations were out of step; as a consequence, the key supplier was unaware of the significant size of the true demand. Pinnacle helped FMC deliver the right information within its own organization and between itself and their key supplier. This enabled the key supplier to plan on concrete information and commitments, rather than random emails and phone calls.

PREPARATION OF A GAME PLAN Neither the supplier nor FMC had a complete strategy to deliver the product to the customer. As a result, neither organization, while being busy, were focused on the most important tasks to deliver the needed product. The delivery strategy put both organizations in alignment.

PROACTIVE SCHEDULING To close the gap between demand and output, a simple, but robust production scheduling discipline was implemented that allowed the key supplier to more effectively manage its commitments.

“Pinnacle Strategies’ method of process analysis and assessment was very non-intrusive. It was impressive how quickly they grasped our challenges and opportunities to assist in tailoring specific tools unique to our organization to improve our performance.”

—Delivery Manager, FMC Technologies

CLIENT OVERVIEW

REGION

North Sea/Scandinavia

INDUSTRY

Subsea technology for the oil and gas industry.

CUSTOMER PROFILE

Manufacturer specializing in sensors for subsea applications.

BUSINESS SITUATION

Pressure sensor output was falling short of client expectations, creating delays that exposed the customer to liquidated damages.

SOLUTION

Pinnacle Strategies initiated a new implementation plan and resolved four major bottlenecks in the workflow.

RESULTS IN NUMBERS

171% JUMP IN OUTPUT

INCREASED OUTPUT FROM LESS THAN
14 UNITS/MONTH TO MORE
THAN **38** UNITS/MONTH.

BOOSTED OUTPUT BY AN ADDITIONAL
51 MILLION NOK
IN ANNUAL REVENUE.

MANAGE PERFORMANCE To ensure the plant personnel were focusing on the things that really mattered, a simple measurement and report system was implemented to show how well the process was operating.

Once the implementation plan was set, Pinnacle helped the key supplier clear four bottlenecks choking output:

ENGINEERING SPECIFICATIONS Many sensors could not be constructed without further clarification on FMC's designs. Unfortunately, FMC's engineering team labored under a backlog of clarification requests. Pinnacle organized the requests in sequence and raised the obstacles to the correct level of management, so that the most urgent designs received top priority.

SUB-SUPPLIER PROCUREMENT Just as FMC was frustrated by their key supplier, that same supplier was hampered by parts shortages from its own suppliers. To accelerate component deliveries, Pinnacle suggested the key supplier synchronize demand information with its supply chain.

DOCUMENTATION APPROVAL FMC engineers wrestled with more than forty-five designs of components for each of more than six projects at a time. With Pinnacle's help, FMC placed the documents in project sequence, coordinating priority with the component schedule.

MAXIMIZE AVAILABLE CAPACITY When Pinnacle Strategies consultants moved from the office to the actual manufacturing floor, they realized the key supplier had surplus capacity it had failed to leverage. They encouraged the key supplier to release ten more orders into the flow immediately, then release approximately two more each day to ensure the bottleneck resources were never starved of work and no capacity wasted.

RESULTS

Average output increases 171%

Within a few months, the key supplier improved implementation process accelerated pressure sensor output from an average of 14 units a month to 38 units a month. The increased output contributed an additional 51 million NOK (\$8.8 Million) to the key supplier's bottom line without any significant increase in operational expenses.

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



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.

ELEGANT SOLUTIONS TO COMPLEX PROBLEMS

Book a best practices briefing for your management team. Contact Pinnacle Strategies at:

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