

Client

› **Draka UK** is part of the Energy and Infrastructure Division of Draka Holding N.V., an Amsterdam, The Netherlands-based manufacturer of high-performance auto and elevator cables, communications cables, and optical fiber and fiber optic cables. The Division has 1,800 employees at 13 locations and had sales of €950 million in 2007.

Challenge

› Increase productivity and output in a heavily unionized workplace to help drive sales in a market where growth was limited only by capacity.

Solution

› Create a pathway for growth by increasing capacity. Lean training for all employees, followed by a series of kaizen events to work on set-up reductions, Total Productive Maintenance (TPM) and productivity.

Results

Set-up times reduced by an average of 50 percent, creating greater output for the large cable market and effectively doubling the company's monetary output in just one year. Additionally, the facility was able to implement TPM, reduce backlogs, reduce changeover times and increase productivity by 50 to 86 percent in different work areas.

A Netherlands-based Manufacturer of Electronic and Communications Cables uses LeanSigma® to Double Output and Boost Productivity

Starting from Scratch

TBM conducted an initial assessment at the company, and the first kaizen event was held one month later. Draka Derby has three product streams: large, medium and small cables. Using value-stream mapping, the company determined that the large cable area could gain the most from the application of lean methodologies. Large cables represented the greatest source of revenue and the greatest potential for growth within the company.

Set-Up Reductions

For the first six months of Draka's lean journey, kaizen events were focused on set-up reductions, which were the major barrier to increasing productivity. The team focused on the stranding process which was riddled with time-consuming machine set-ups and had the greatest impact on productivity.

The first set-up reduction event was held in July 2007 on the Number 1 PS1 stranding machine. The kaizen team introduced new tools, fitted safety guards to the machine, created standard operations, provided visibility of workload for the operation, repaired the loader mechanism, and replaced the bobbin locking pins. The team reduced set-up time on this machine by 30 percent and improved the Progressive 5S score from 0.3 to 0.7 (see 5s box on next page).

The Culture Challenge

Draka Derby has a large number of long-term employees and is a union facility. It hadn't even heard of the word "lean." Management played a significant role in driving early cultural change by participating in events. Through their enthusiasm and support for the process, they helped others get on board. They conveyed their commitment by demonstrating enthusiasm and participation.

The changes that helped to jump start cultural change were varied:

- Machines were improved
- Methods and tools were changed or provided to make jobs easier
- Operators saw their working environment improve
- Managers worked alongside operators and dissolved the "us vs. them" mentality
- A newsletter was launched called *Lean Manufacturing News* to communicate the benefits gained from their lean initiatives

The management team worked hard to gain the trust and cooperation of the union. Union stewards were included on the first several kaizen events helping them to see for themselves that the kaizen process would actually improve work conditions for their members. Those stewards were then able to communicate to the rest of the organization the positive changes that could be effected through a culture of continuous improvement.

Suddenly people weren't waiting for kaizen events to make changes and improvements in areas that were not actually slated for events, and that's when the culture really started to pick up and change.



Productivity and Organization through 5S

The largest, single contribution to increased productivity is eliminating non-value-added time. A clean, well-organized workplace is therefore the foundation upon which all other lean activities and productivity achievements are based. 5S is derived from the Japanese words that describe the five steps to creating an organized workplace. Progressive 5S is based on the Japanese system but makes it easier to implement and to monitor results as illustrated in the Progressive 5S table. To learn more about 5S, read a white paper on Progressive 5S by visiting the "Resources" section at www.tbmcg.com.

In its first two years, Draka made dramatic changes as a result of its lean initiative:

- ✓ Doubled output in monetary terms within the first year
- ✓ Reduced set-up times by 50 percent
- ✓ Improved machine productivity by 50–86 percent
- ✓ Improved changeover times by 38 percent allowing the company to reduce lead times, manufacture in smaller batches and eliminate excess inventory.



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