The client manufactures polymers for use in paint manufacture, building materials and fast moving consumer goods, amongst others. Recent significant shifts in market requirements and an increasingly competitive climate prompted the company to consider making changes. However, they had no clear idea of which companies were their major competition, or of their own strengths and weaknesses. To compound matters, the workforce had been in a low-achievement comfort zone for many years.

The company needed to improve its manufacturing performance by increasing the quality of its product and its throughput whilst making a reduction in unit cost.

“We wouldn’t have got to where we are today without the discipline delivered by ABB.”

Production Manager

Solution

ABB were appointed to facilitate these changes. The project was executed in three phases over an agreed period of 18 months.

Phase 1. Value gap identification

We identified the key competitors and analysed their strengths and weaknesses. We employed the following metrics: Overall Equipment Effectiveness (OEE), raw materials pricing and finished goods price.

We assessed the site’s manufacturing performance using the ABB Manufacturing Performance Assessment (MPA). The results of the competitor analysis and MPA were used as drivers for a significant business strategy review. The output of this was a clear plan of what had to happen in order to align these activities and enhance the drive for manufacturing improvement.

At the end of phase 1, the new capacity targets were identified, overview actions and broad project plans were put in place.
Phase 2. Baselining
This involved the development of a detailed baseline for the manufacturing assets and a definition of project brief. The ABB team worked with client personnel to produce the detailed baseline and identify the improvement projects that would deliver the greatest return on investment.

Phase 3. Delivery
Here, delivery was made by a cross-functional, multi-level client team. We acted as facilitators and project managers. The baseline assessed, in detail, the manufacturing performance of every element of the client’s process. The ABB 8-Step delivery process was used to ensure rapid, sustainable delivery along with many continuous improvement techniques, such as Six Sigma Tools, RCA (Root Cause Analysis), CEDAC (Cause and Effect Diagrams) and Change-Over Reduction.

Services provided:
- Manufacturing performance assessment
- Customer and competitor analysis
- Strategy development
- Gap analysis and base-lining
- Manufacturing improvement consultancy
- Project management
- ABB 8-step process for project improvement
- Manufacturing improvement team facilitation
- Six Sigma tools
- Project planning and definition
- Management coaching and mentoring
- Project steering process design
- Production loss management and loss accounting
- Development of management control and reporting systems

Benefits
- Overall Equipment Effectiveness (OEE) improvement of over 18% was delivered
- Significant increase in product quality
- Processes set-up to aid long term sustainability and ensure that the gains were maintained
- Increased focus on the importance of quality
- Improved machine reliability
- Reduced set-up time
- Improvements in production adherence to schedule