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# Armacell Case Study

World Class Manufacturing  
Programme

## CLIENT

Armacell is a global manufacturer of advanced insulation and engineered foam products. The company has more than 23 plants in 16 countries on four continents.



## SCOPE

Armacell has embarked upon a World Class Manufacturing Programme entitled 'World Class Armacell Mind-Set (WAM)'. The programme's initial focus has been to apply 'Focused TPM' globally across its facilities and then apply 'Lean' methods to its supply chain.

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## BACKGROUND

The WAM Programme is based on WCM (TPM/QC/Lean) methodology. Armacell launched the programme initially, focusing on their larger strategic multi-product plants.

The WCM methodology was considered the most appropriate approach for the challenge Armacell had to overcome. WCM is a proven methodology adopted by many companies whose processes are machinery/capital intensive and require a proven approach to engaging the workforce to improve manufacturing and supply chain performance.



## AIMS

### Achieving World-Class Manufacturing

Create a World Class Manufacturing Organisation in terms of plant performance through the application of WCM improvement methodologies.

### Plant Reliability Enhancement

The initial focus was to improve plant reliability and restore the basic condition of the key equipment across the 23 manufacturing facilities.

### Enhancing Process Stability for Reduced Material Loss

We will become the go-to cafe in our target area.

## APPROACH

- ▶ As implementation progresses, plants are awarded Bronze, Silver, and Gold awards. In simple terms, the bronze award is given to plants that created 'pilot' examples of the application of TPM in the form of Autonomous Maintenance (AM), Professional Maintenance (PM) and Focused Improvement (FI) etc. During the silver award phase, plants roll out AM, PM and FI to the remainder of the plant.
- ▶ In addition, once plant reliability has been improved, the focus is on improving product quality. At the time of writing, most factories were at Bronze Award Level, with a small number successfully achieving Silver Award.
- ▶ Henkan team members have been involved in the WAM Programme at both site and corporate levels. Henkan has been engaged by Armacell from both a consultancy and training perspective. In terms of consultancy, this has involved developing some of the WAM models (tools and techniques), including Autonomous Maintenance, Professional Maintenance, Early Equipment Management and Early Product Management.



In addition to supporting the model development Henkan also deliver associate training at the site level. Generally, this is done in the form of 'Practitioner Courses'.

The courses are delivered with a balance of theory and practice. Most exercises are based at the Gemba, making improvements that directly impact business performance. After successfully attending the courses, delegates apply the tools and techniques they have learnt as Practitioners. Henkan also provides direct support for global corporate auditing events at individual factories in all regions.

**Before**



**After**



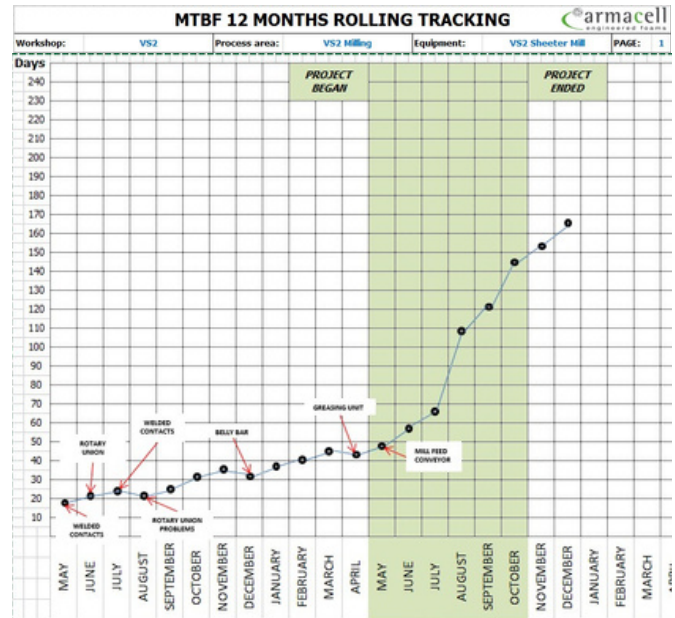
The Armacell senior management team attends these six monthly events. Events include an assessment of the status of WAM maturity against a predefined set of criteria. They also provide an opportunity to coach the local teams on implementing tools and techniques.



# RESULTS

The program includes all the relevant sites, and a systematic Audit Calendar has been implemented and followed, driving the organisation towards excellence. Visible improvement in tools implementation, standard level and competence is shown across the organisation with tangible evidence in the operational KPI.

From the TPM standpoint, basic step 3 has been implemented in all the main sites starting from the model area and horizontally expanded across key machines bringing to 0 Breakdowns due to lack of basic condition and lack of PM.



## CLIENT TESTIMONIAL



The support from Henkan contributed to speeding up and reinforcing our programme. I want to mention the cooperation with John C. for the senior Auditing process, which represents the key to keeping consistency and pace.

His wide WCM competence and open mind approach made easy the model alignment and effective the feedback.”

**ROBERTO MENGOLI**

(Chief Technology Officer)

1

### Silver Level Recognition

Several Breweries have now attained Silver Level Recognition, having transitioned significantly to using TPM to deliver business results across the Supply Chain.

2

### Unified Problem Solving

The engagement in UPS is seeing a pace of daily, weekly, and monthly problem solving, whereas previously, the programme was primarily Quarterly based teams.

3

### Leadership Support

The People Development influence has now seen Leadership supporting shop floor teamwork through the structured Daily Control System (DCS) and Morning on the Shopfloor (MOSF) activity – Problem solving and the pace of learning have increased across all Breweries and Logistics functions.

