

World Class Manufacturing

Making it happen in the factory

A highly interactive series of modular sessions where delegates will:

- Be able to understand and know how to apply all the major **World Class Manufacturing techniques** such as Lean Manufacturing, Just in Time, Six Sigma, Total Quality, Kanban, Vendor Managed Inventory, Continuous Flow Manufacturing Housekeeping (5S), Set-up time reduction (Single Minute Exchange of Dies - SMED) and Total Preventative Maintenance.
- Learn essential **problem solving tools**
- Pick up training material and implementation ideas that they can use in their companies to apply the World Class Manufacturing concepts in a practical way.

Typical benefits of applying these proven World Class Manufacturing techniques include:

- 50% reduction in inventory and WIP
- 25% increase in productivity
- 25% reduction in scrap and re-work
- on time in full delivery failures reduced by half

All within 12 months.

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Develop your skills in this intensive workshop



Presented by:

Phil Robinson
Principle
BPIC

Integrated with the course is a benchmarking session where delegates will be asked to complete a detailed World Class Manufacturing checklist so they can compare themselves with other delegates and other companies around the world.

Organisations that have benefited from Phil's courses in the past include:

- Airbus (aircraft)
- Generics (pharmaceuticals)
- Finsbury (healthcare)
- Jabil Circuit (contract PCB assembly)
- TPC Malaysia (electronic components)
- ICI India (paint)
- Tata motors (cars)
- ITC (cigarettes)
- Komatsu (excavators)
- Bookham technology (opto electronic systems)
- Smiths Detection (environmental monitoring)
- Alstom (industrial switchgear)
- Baxters Foods (jams and soups)

Course dates and venue:

Web site : <http://www.bplic.co.uk>

World Class Manufacturing

Day one

08:00 Registration and coffee

08:30 Introduction and objectives

09:00 **World Class Manufacturing**

- Meaning of World Class Manufacturing
- The competitive edge
- MRP, ERP and JIT defined
- How to achieve world class status

09:30 **Lean Manufacturing and Just in Time**

- What is Just in Time Focus
- Elimination of waste
- Scope of Just in Time
- Lean Manufacturing origin and definition

10:30 Networking break

10:45 **Total Quality Management Principles**

- Total quality culture
- The cost of quality
- Mount Fuji effect

11:15 **Kanban**

- Push vs pull
- Brand name kanbans
- Generic kanbans
- E-kanbans
- Kanban benefits

11:15 **Layout**

- Function vs process flow
- Cellular manufacturing
- "U" shaped lines

13:00 Networking lunch

14:00 **Point of Use Materials**

- Definition
- Backflushing problems
- Point of use kanbans
- Vendor managed inventory

15:45 **Factory Simulation Exercise**

Workshop

Starting with a simulated factory in batch production mode, the teams decide improvements after each of 4 "years" in order to achieve World Class.

The teams therefore learn how to apply the techniques they have learnt.

The exercise is followed by a discussion of the lessons learnt

17:00 Open forum on the day's topics

17:30 End day one

Who should attend

The World Class Manufacturing course is ideal for:

Those responsible for the implementation and success of the shop floor including manufacturing and general directors and managers, production managers, production engineers, shop floor team leaders and supervisors, production control and planning managers, quality managers, and human resource managers.

Bring a team and reap the benefits

World Class Manufacturing

Day two

08:00 Registration and coffee

08:30 Recap on day one topics

09:00 **Housekeeping**

- A question of attitude
- The 5S's

09:00 **Quality**

- A matter of inspection?
- Quality of product
- Quality of people
- Quality of process
- Quality of design

09:30 **Problem Solving**

- The problem solving tools
- Nominal group technique
- Removing the obstacles

10:30 Networking break

10:45 **Set-up Time Reduction**

- Importance of set-up time
- Best changeover is no changeover
- SMED concepts explained
- Internal vs external set-up time
- Set-up team organisation

11:30 **Set-up Time Reduction Workshop**

13:00 Networking lunch (during workshop)

Set-up Time Reduction Workshop

- An operator performs a changeover
- The changeover is timed and then analysed by the team
- Changes are made and the changeover is repeated with the improvement noted
- The team then discuss what other changes would help in the future

14:30 **Total Productive Maintenance**

- TPM activities
- Equipment maintenance

14:30 **Cross Training**

- People hold the key
- Cross training matrix
- Constraints to a flexible workforce

15:15 **Implementation** - making it happen

- People hold the key
- Cross training matrix
- Constraints to a flexible workforce

16:00 Networking break

16:15 Open forum on the course

17:00 End of course

Reasons to attend

4 Reasons to Attend

Explore - new ways to achieve World Class Manufacturing status

Discover - Dramatic cuts in lead time frequently from months to days

Find out - Set-up time and batch size reductions by half or more

Learn - Quality improvement to parts per million

World Class Manufacturing

Course presenter - Phil Robinson



Phil Robinson started his career as a graduate engineering apprentice with GEC (then AEI) in Rugby, England. After a number of years at both Plessey and Erie Electronics he joined Knowles Electronics as Production Manager and subsequently became the project leader for their 1985 class "A" MRPII (Manufacturing Resource Planning) implementation, only the second in the UK. Phil stayed on at Knowles to become their Director of Manufacturing and later their Director of European Sales and Marketing. In the 10 years since starting their Business Excellence programme, Knowles had achieved class "A" in MRPII, reduced lead times from 8 weeks to next day kanban deliveries, reduced inventories by one third, achieved a better than 99.5% on-time delivery record and reduced customer returns to less than 300 parts per million..

Phil started his education and consultancy company in 1994 with the focus of helping companies achieve nothing short of excellence in manufacturing operations and customer service through the use of the very latest thinking in business processes including ERP (enterprise resource planning), MRPII (manufacturing resource planning), Just in Time and Total Quality through private courses and consultancy. Phil runs courses in all aspects of manufacturing planning and control in the UK and abroad, and also teaches on MRP Ltd.'s public education courses.

Phil has a degree in electrical engineering, is a member of the Institute of Managers and a member of the Institute of Electrical Engineers.

Phil's book "**Business Excellence – the integrated solution to planning and control**", was first published in 1997. It has sold 5,000 copies in paper format, and also selling as an e-book, which provides a valuable reference for manufacturing companies who are or have already implemented a manufacturing planning system. The book is an easy to read, practical, common sense guide for managers at all levels. More details, reviews and ordering information can be obtained from http://www.bpic.co.uk/be_book.htm. An e-book version of Business Excellence is available to all delegates at a delegate discount of 50% (£10).

What other delegates have said about Phil's courses

"Valuable informative, easily understandable"

Devaraja Reddy,
Sami Labs (Chennai, India)

"Very enjoyable course. Relevant topic with some good advice. Phil has excellent knowledge"

Jamie Sansom
Baxters Food

"Thank you for a brilliant course"

Graham Meconi
Finsbury Orthopaedics Ltd.

"The whole course was very entertainingly delivered whilst being informative and interesting"

Laura Whymark
Generics Pharmaceuticals

Action Learning Approach

This 2 day workshop is intensive and actively involves teams of delegates.

The course material includes a grading exercise and notes on the simulation workshops so that delegates can use the exercises for training in their own companies.

Throughout the course examples of companies who have used the techniques will be quoted with their advantages and disadvantages.

The action learning approach works because people learn when they have to try out the theory in practice.

The learning experience is also enhanced by team discussions.