

## Portakabin - Summary

# Lean production at Portakabin

### Introduction

Portakabin is an international company producing advanced modular buildings. These are made up of one or more factory-constructed modules. Portakabin utilises lean production methods to ensure it produces quality products that give value to the customer.

### What is lean production?

Lean production aims to reduce the use of labour, materials, space and time. Portakabin uses three main production methods:

1. Flow – module production flows through stages in factory
2. Cellular – constructed from room-sized modules
3. Batch – a run of similar products.

Portakabin works to eliminate waste in each of these areas. Lean production creates products that are 'right first time', eliminating waste by reducing defects. It uses a Quality Management System that meets high industry standards. This system ensures that every aspect of the company's activities meets customers' needs. The system:

- has a documented set of procedures that are checked for efficiency
- checks outputs for defects and puts right when necessary.

Portakabin also has an Environmental Management System to help increase efficiency and reduce emissions.

### Just-in-time production

Just-in-time is a method used in lean production. It aims to reduce the costs of holding stocks. Finished goods, work in progress and raw materials are kept to a minimum by producing stock only when needed by the customer or by the internal production process. Holding stock can add cost in numerous ways:

- Firms have to pay for storage space.
- Cash is tied up in stored stocks.
- Regulations or customer requirements may change, making stock unusable.
- Any defects in large quantities of stock may cause costs of rework.

Rather than keeping stock 'just-in-case', Portakabin 'pulls' supplies when demand increases. This reduces costs and ensures components meet the specific requirements of each customer.

### Reducing waste

Portakabin's lean production processes also help to reduce waste. This has been achieved in two key ways.

1. Eliminating waste from the manufacturing system through:
  - clever module design
  - re-use of materials
  - changes in materials used
  - steel beams pre-cut to precise length
  - boards and floors are pre-sized so no trimming is required.
2. Recycling waste through:
  - staff trained on recycling
  - waste management teams set up
  - pallets recycled at every stage of the supply chain.



## Benefits of lean production

Lean production provides:

### 1. financial benefits:

- *Portakabin's* production methods construct high quality builds with reduced costs.
- Construction is factory-based and so is not affected by weather. Speed of construction is 50% faster than traditional builds.
- High quality control is guaranteed through quality management and use of lean manufacturing techniques.

### 2. environmental benefits:

- *Ultima* buildings are more thermally efficient.
- Ozone-friendly materials are used.
- Fewer vehicle movements minimises pollution and noise.
- 96% of the whole building is recyclable.

### 3. social benefits:

- Improved health and safety for workers.
- Less noise, fewer lorry movements and other nuisances to the community.

## Conclusion

*Portakabin* provides solutions that help organisations manage their changing accommodation requirements. Its modular buildings are constructed using lean production methods. Lean processes provide financial, environmental and social benefits. Problems associated with conventional builds such as delay or overspending are eliminated.

