

## Portakabin - Brief

# Lean production at Portakabin

### Introduction

*Portakabin* is an international company. It makes modular building systems and sells them worldwide. The buildings are made in a factory and then put up where customers need them. *Portakabin* uses lean production methods to make sure the buildings are built to the same standard and quality. This is effective production and also gives value to the customer.

### What is lean production?

Lean production aims to minimise waste and inefficiency. This includes labour, materials, space and time. *Portakabin* uses several methods to help it improve its production process. *Portakabin* has three main types of production:

1. Flow - modular buildings are made in stages that move to each stage of the process (flow) through a factory
2. Cellular - room-sized modules are made to link to others
3. Batch - a run of the same product is made.

*Portakabin* works to reduce waste in each area of its production process. Lean production removes waste and reduces defects in the process so that products are 'right first time'.

*Portakabin* also uses management systems. Its Quality Management (QM) System helps products meet industry standards. It also ensures that customers' needs are met. The system:

- has a clear set of procedures to measure efficiency
- checks outputs for defects and puts things right when needed.

Its Environmental Management System helps to reduce the impact of *Portakabin* operations on the environment. This, along with high quality, leads to greater efficiency, less waste and satisfied customers.



## Just-in-time production

Just-in-time is a method used in lean production. It aims to produce goods to order so the business does not hold large quantities of stock. This has many cost advantages. Holding stock can add cost in many ways:

- the cost of storage space
- cash tied up in stored stock
- stock may no longer be needed if regulations or customer needs change
- defects in large amounts of stock cause costs of rework.

Portakabin 'pulls' supplies through the system when demand goes up. This is instead of keeping stock 'just-in-case'. It keeps costs down and makes sure each part of the product meets the exact needs of each customer.

## Reducing waste

Portakabin's lean production process means less waste. This has been done by:

1. cutting out 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 pre-sized, so no trimming is needed.
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 can provide many benefits:

### 1. Financial:

- *Portakabin's* methods reduce the costs of building high quality projects.
- Construction is factory based and is easier to control and timetable.
- Buildings are made 50% faster.
- Quality Management System and lean techniques ensure high quality.

### 2. Environmental:

- *Ultima* buildings retain more heat.
- Ozone-friendly supplies are used.
- Less transport reduces pollution and noise.
- 96% of the whole building can be recycled.

### 3. Social:

- Improved health and safety.
- Less noise and transport.

## Conclusion

*Portakabin* provides solutions that help firms manage their changing accommodation needs. It uses lean production methods to construct buildings which have financial, environmental and social benefits. This helps to remove problems linked with conventional builds such as delay or overspending.

