A galvanising company used CLIP to improve efficiency & increase profitability

Hot dip galvanising tank in action

The team creating standard operation sheets for the tank operators

By using CLIP...

'We have increased the weight of metal on each dip by 7%. This has led to a significant increase in turnover'

THE PROJECT

Increasing turnover by improving efficiency at a galvanising company

MANUFACTURER:

Pillar Wedge

Chris Boardman of Pillar Wedge tells how CLIP helped them to increase turnover by working smarter and making their key processes more efficient.

MANUFACTURER'S VIEW

Background to the project

The company is based in Heywood and is part of the Wedge Group. The group as a whole offers a national galvanising service, and we specialise in 'hot dip galvanising'.

We have a strong focus on service and quality, and delivering a fast turnaround time for our customers.

What attracted us to the CLIP programme

The Wedge Group board heard about the CLIP approach, and how it could make any process more productive. They asked the CLIP team to give us a presentation explaining how 'lean' working could benefit the factory.

We realised that the 'lean' approach to working would fit in nicely with the other initiatives that our management team was bringing in. It was time for a change, and we knew CLIP could help us improve.

What our aims & expectations were

The main aim of using CLIP was to improve the efficiency of the factory and increase turnover by working smarter. We wanted to focus on increasing the throughput of jigs though the galvanising tanks without hiring extra staff, or compromising quality.

We saw CLIP as a chance to look in detail at every process in the factory. We would then be in a better position to understand how each process impacted on our overall efficiency.

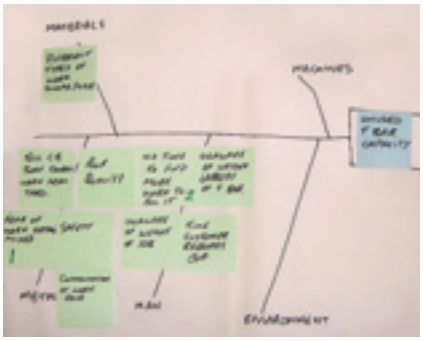
We also expected to:

- Improve job satisfaction and security at the factory
- Continuously improve our safety record.

How the CLIP process worked for us

Our best opportunity to become more efficient was to increase the weight on the jig per dip. This became clear at the 'pre-diagnostic' workshop, where we reviewed the data collected from the factory floor with the CLIP engineer.

We spent a lot of time looking at the 'root' cause of any problems in the



Fishbone 'Cause and Effect' diagram of problems in the factory

factory. The team 'brainstormed' all the possible causes and wrote them on post-it notes. These were stuck on a 'fishbone' diagram, which is now displayed in the factory. We refer to this when a problem emerges, and it makes us consider all the possibilities. The diagram can be added to, so we can rule out certain causes by looking back at our past experiences.

At first the workforce was sceptical of the new CLIP approach and how it could benefit them. We overcame this by filming them working, and doing a '7 wastes analysis' with the CLIP engineer. The team realised how simple it was to make their lives easier, and by getting more work done per day, they could improve their bonus payments.

After seeing himself on tape, one of the factory workers commented that he could not believe how far he walked in one day. By going through this process, we were able to start removing any wasted time from their day.

Work no longer gets bottled-up in the factory, because we have introduced better documentation procedures. One example is our new 'process route cards'. By recording more accurate information, it is easier to manage the different orders as they pass through the factory. White tags are tied on the orders so they don't get mixed up when more than one order is placed on a jig.

We also set up another team to look at ways of improving the number of jigs put through the tank per hour. We videoed the dipping process and the team used what they had learned from it to develop a new standard operating procedure. We tested it in the factory and videoed the process again, before the final operating sheet was developed. This video is now used to train all tank operators.

> *'We have reduced the number of defects by 63%, and more of our deliveries are reaching our customers on time'*
>
> *Chris Boardman of Pillar Wedge*

How we benefited from this initiative

By using the CLIP approach we have now increased the weight of metal on each dip by 7%, which has led to a significant increase in turnover with no extra labour required. Increasing the number of dips we can do per hour by 3%, to 3.3 an hour has also helped to improve throughput.

We have reduced the number of defects by 63%, and so more of our deliveries are reaching our customers on time.

The whole culture has changed on the factory floor. People are now far more aware of which jig will be the best for a particular job, and how they can increase the weight of metal on each drop. It is all about making life easier for those actually carrying out your processes.

How we plan to use the skills & lessons learned

There is now more communication between the senior management and the factory floor, which had led to a better working relationship. The factory team is now feeding back their ideas for improvements to the senior management on a more regular basis, which is helping to drive further improvements.

> *'I would say that the 'lean' manufacturing route is definitely the one to go down. We have improved quality, efficiency and now offer our customers a better service'*
>
> *Chris Boardman of Pillar Wedge*

I would say that the 'lean' manufacturing route is definitely the one to go down. We have improved quality, efficiency and now offer our customers a better service. On top of all this, we are now making more money.

LEARNING POINTS

- Use CLIP as a chance to look in detail at all your processes. You will then be in a better position to understand how each process impacts on your overall efficiency.
- Spend time up front looking at the 'root' cause of any problems. Get the whole team to 'brainstorm' all the possible causes, and display the solutions on a board that everyone has access to.
- Film your workforce to get them to see how they can become more efficient.
- If you can make life easier for those actually carrying out your processes then they will buy into any changes.
- Get your team to feedback their ideas for improvements on a more regular basis. This will keep you continuously improving.

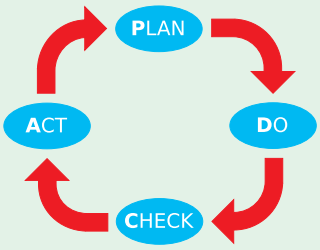
JARGON BUSTING BOX

- **7Ws – look for seven wastes that can never be added value:**
  - Motion
  - Transport
  - Waiting
  - Overproduction
  - Defects
  - Unnecessary inventory
  - Inappropriate work or processing.

- **5Cs – check these to lay the foundations for continuous improvement:**
  - **Clear out** – separate the essential from the non-essential
  - **Configure** – a place for everything, and everything in its place
  - **Clean & check** – assess the current condition of the environment
  - **Conformity** – ensure standard easily maintained
  - **Custom & Practice** – ensure everyone follows the rules.

- **THE PLAN-DO-CHECK-ACT (PDCA) CYCLE –**

  a way of thinking which encourages continuous improvement



- **THE CLIP – 'standard structured approach' –** which is made up of four main stages:
  - **Pre-diagnostic** – setting the aims and training the team in lean tools and techniques
  - **Diagnostic** – practically applying the tools to analyse the situation
  - **Improvement activity** – looking at the data for opportunities to improve processes
  - **Follow up** – identify barriers to success and set improvement actions in place.

- **VISUAL CONTROL –**

  a major part of the CLIP process is to use visual tools to display data, highlight improvements and record ideas. These include:
  - **Key Performance Indicators** – are the measure of performance of activities that are critical to the success of an organisation
  - **Pareto Chart** – a comparative bar chart that shows the number of defects for each chosen area of work, and the cumulative total of defects over the whole project
  - **Fishbone Diagrams** – are used to identify the possible causes of problems. Start by defining the problem to be investigated and write it down. Then draw lines (bones) to represent each cause that runs into it. Finally you can brainstorm what is actually the cause of the problem
  - **Priority Matrix** – a quadrant chart used to prioritise which improvement areas to focus on first. For example, you can place activities that will have a high impact at a low cost in one quadrant and focus on these first.

GETTING HELP

CONTACT DETAILS

Martin Watson
CLIP Director
BRE
Garston
Watford WD25 9XX
01923 664638
www.bre.co.uk
www.constructingexcellence.org.uk/service/clip

PUBLISHED: APRIL 2005

All activities carried out through CLIP are certified for CPD hours.

Research & Author:
Leading Edge Management Consultancy Limited
www.lead-edge.co.uk

Design: Allan & Company Limited
www.allandesign.co.uk

CLIP dti bre