



Issue 75  
May 2019

# LEAN Times

Monthly Update of JEG Lean Information

**SIKLA supporting an easier installation  
First of a kind—Top of the Pops  
When things need correcting....QSP's 16 & 18**



New e-zine  
this month

## QSP 16 Nonconformance reporting

None of us are perfect....and for that reason we need methods in place to document any nonconforming services or products identified within the organisation.  
However, documenting them is not enough; these issues need to be corrected and the root cause identified and permanent fixes applied so similar issues will not occur again.



I'M GOING TO NEED A LITTLE MORE FOR THE ROOT CAUSE THAN, WHO'DA THUNK.

All of us are responsible for identifying nonconformances and notifying our relevant manager, who will ensure it gets logged and brought before JEG Quality manager to recommend the

corrective action required. Where the corrective action is obvious and within your power eg. Return of goods to supplier, this should be carried out immediately and recorded.



If for any reason we cannot comply with a project requirement then we should offer an alternative and get this agreed with the customer.....at all times the customer's needs are considered to be paramount. Making sure that any actions arising in these reports are being closed in a timely manner is monitored at senior management level on a regular basis. All reports are reviewed in order to identify any underlying trends and to propose possible improvements or additional training requirements etc.

## QSP 18 Corrective Action

This procedure summarises the Group's various systems for implementing corrective and preventive actions. **Preventive** action is the key here.

We've all heard the saying that "Prevention is better than cure"  
To quote Shigeo Shingo .....

"The best way to clean something is to make sure it doesn't get dirty in the first place"



However if corrective action is required then we must follow point 5.2 from QSP 18 which states:-

In all cases the corrective action agreed must ensure the immediate problem is resolved, a root cause for the problem is established and action is taken to prevent recurrence.

## GOT A STORY TO TELL? .....WELL, WHAT'S THE STORY BUD?

If anyone has information or news they want to share regarding innovations or Lean Principles on their site, or maybe you have an article or story you want to share. Please feel free to contact the LEAN Development Group at the email address below and we will be delighted to help.



**Lean Development**  
Jones Engineering Group  
Mespil Court,  
Mespil Road,  
Dublin 4,  
D04 E516

rcurley@joneseng.com swatson@joneseng.com  
www.joneseng.com

lean@joneseng.com



<http://leanconstructionireland.ie/>  
[info@leanconstructionireland.ie](mailto:info@leanconstructionireland.ie)

**First of a Kind—Great Initiative!**  
Have you ever struggled to understand the many different types of supports specified on a project? Then there is the added challenge of making sure the crew installs the right one in the right place.



John Plant, Tommy Darcy, John McHugh and Karl Roche are all working on a pharmaceutical project in Swords at the moment and have produced the "First of a kind" display shown here to help solve this problem.



Training is now being carried out with each of the crews to ensure understanding. The client's QA manager has also attended the training and has congratulated JEG on the initiative.

## Catch-up Corner

Plan, Do, Check, Act—Make it your mantra  
Janssen site improvements  
Inspection test and calibration  
QSP-11 & QSP-13

[lean@joneseng.com](mailto:lean@joneseng.com)



Paul Harding delivers his presentation in Waterford IT

## 7th Annual WIT Lean Enterprise Excellence Forum

A number of staff from JEG recently attended this annual Lean event hosted by Darrin Taylor in Waterford IT. The event seems to grow in stature within the Lean community each year and this one certainly did not disappoint.

The forum keynote speaker was Prof. Peter Hines who as usual gave a masterclass in how to present to a large audience without losing the attention of anyone there.

Peter's new book (co-authored by Chris Butterworth) "The Essence of Excellence" was the topic of his talk and has recently been awarded the Shingo Institute Publication award.

Following on from the main forum, each attendee chose to attend four out of the series of twenty four separate presentations over the course of the day.

Our own Paul Harding presented on "What factors may inhibit



Ray Curley gives an overview of JEG

implementation of Lean in a large construction organisation". This is the subject he based his thesis on for his recently completed masters degree in UL in Programme and Project Management.

Paul was given an introduction by Ray Curley (above) and Ray also answered questions later in the day as a member of the Forum Plenary panel.



"I'm sorry this letter is so long, I didn't have time to make it shorter." George Bernard Shaw

**Simple products and innovations make the biggest difference**

Our JEG Mechanical division is currently working on a project in Grangecastle, Dublin for a truly international client who has 13 state-of-the-art manufacturing plants in 6 countries. This company "has four business divisions united by a shared commitment to quality, safety and ongoing innovation: Bioscience, Diagnostic, Hospital and Bio Supplies."

.....why are we highlighting this?

This company specified that we should use the Sikla SiFramo support system on the project as part of their ongoing innovation and we have been pleasantly surprised by the results.



Sikla themselves are an innovative company. When you look at their Corporate Mandate, you will see the statement below

"We develop and offer no products, solutions and services unless they tick the 3 boxes of simplicity, safety and cost-effectiveness."

The Sikla system is a secondary steel replacement material/technology that has a higher initial cost than traditional alternatives but can deliver significant overall savings and other benefits.

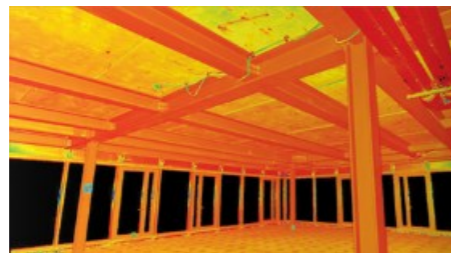
The Project team have put forward their findings based on their experiences with the product to date.

Accurately modelled bracketry during the design process allows for the off-site manufacture of the bespoke Sikla support system, saving precious site space for

installation teams. Quality output from JEG BIM team provided accurate support details and layout information.

"It all went together perfectly" - Alan Murray

Initial laser scan of the building by JEG geo-survey department provided our BIM team with accurate information from which to develop support details.

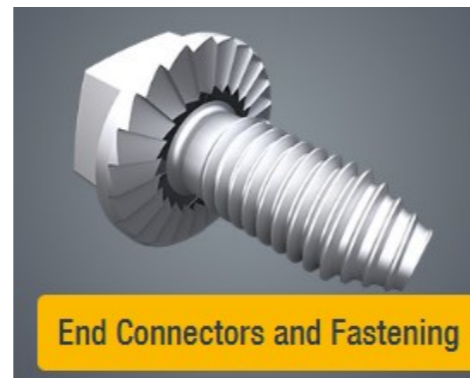


Typical laser scan image of building

The biggest benefit comes from the labour reduction required to install the system which is lighter in weight than conventional steel components and where each support frame is simply bolted together. The same size fixing screws are used throughout and can be installed using a cordless impact wrench, which speeds up assembly time, ensures correct torque of every fixing and makes stocking different size screws a thing of the past.



Impact gun being used for assembly



In addition, the pipe brackets themselves are bolted to the frame which removes the need to weld and paint traditional supports.



Pipe shoe and guide assembly bolted in place

Modifications are easily made where small changes have little impact on what is a very flexible system, contrasting inflexible traditional steel that might need to be scrapped.

Other notable benefits include improved safety with the elimination of welding, drilling and reduction of heavy lifting.



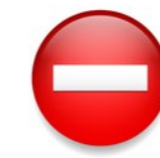
Each delivery has ID label linked to specific site location

Orders of pre-cut channel and fittings are assembled and palletised and can be brought directly to the work area for assembly and installation, saving storage space and avoiding double handling (Just in time delivery)



**PROS :-**

- Material cut to length off site (*reduces work and labour required on site*)
- Material delivered on pallet for brackets in specific area (*reduces double handling*)
- Just-in-time delivery (*reduces congestion on site. Keeps maximum floor area available for install works*)
- Standard size bolts for all joints on support system (*only one size needed, eliminates errors picking wrong bolts from stores. Easier to manage stock levels of one size only*)
- Can be assembled using cordless impact guns to correct torque (*different size spanners not required. All bolts set to correct torque every time*)
- Lightweight material means easier install procedure for our crews (*no awkward rigging of fully welded assemblies*)
- Minor adjustments possible to allow for discrepancies of building structure (*no cutting or welding in situ required for alterations*)
- Complete range of mechanically fixed pipe supports available to compliment the installation (*no additional welding or painting of guides required*)
- Bolted connections to building structure using standard mounting plates (*no damage to painted finish or intumescent coatings of building steelwork*)
- Improved housekeeping in work area (*no trailing leads required for drills or welding equipment. No metal swarf as all material pre-cut off-site*)
- Local supplier maintains material in stock (*minimum delay if additional material required at short notice*)



**Cons :-**

- Higher material cost than traditional support construction
- On some occasions (not often), there has been a longer lead time

**Outcome:-**

Using the complete system ie. Channel **and** attachments has resulted in substantial efficiencies for the install team.

Pros and Cons list above speaks for itself.

**Nothing new about cordless hand-tools, but what about cordless welding plant?**

Cordless welding plant is being used to make significant time savings on the same project in Grange Castle.

"Half the work" - John Mc Geady

There are some obvious ease of use benefits of the cordless plant such as :-

- No requirement for PAT testing of plant (charger only)
- Removal of cable trip hazards
- Never running out of cable length
- Shorter welding torches and shorter earth clamps where the plant can be brought closer to work location inside an MEWP

But it is how the cordless plant is being used that really saves time.

The cordless plant takes a full 2 hours to charge which delivers :-

1. 18no. 3.2mm stick rods or
2. 2no. 6" sched. 10 butt welds or
3. 2 days of tacking.

With a site requirement for all cables to be at high level, welding plant with power cables demands labour intensive running and re-running of the power cable to each weld. Instead of completing this process twice, for tacking first and then for welding each joint, the cordless plant is optimised by using it to **tack** all the joints first. Welders using conventional cabled welding plant will then complete the more energy intensive butt welds, saving the battery of the cordless plant.

Could a machine like this save you time?



"Efficiency is doing things right; effectiveness is doing the right things." Peter Drucker