

# ASI VOCATIONAL TRAINING INITIATIVES

**BY DAVID VARCOE, ASI STATE MANAGER - NEW SOUTH WALES AND ACT**

*MANY ASI MEMBERS WILL HAVE ATTENDED A TECHNICAL EDUCATION SEMINAR AT SOME POINT. THIS POPULAR IN-SERVICE TRAINING CAPABILITY IS NOW BEING AUGMENTED WITH A RANGE OF MORE PRACTICAL, HANDS-ON AND VOCATIONAL TRAINING COURSES. IN RESPONSE TO FEEDBACK FROM MEMBERS, THE ASI IS FACILITATING AN INDUSTRY-LED TRAINING AND CERTIFICATION PROGRAM DESIGNED TO DEVELOP MUCH-NEEDED SKILLS AND EXPERTISE IN VARIOUS ASPECTS OF STEEL MANUFACTURING, ASSEMBLY AND INSTALLATION.*

The initial areas identified for focus include steel shed assembly, bolt installation, and roll-forming operation. Successful completion of the associated training modules will result in a nationally recognised Certificate II qualification. The Steel Roll-forming Certificate II in Engineering has 14 modules, which each require approximately two hours of classroom style learning with a teacher and one hour on a factory floor to observe and confirm competence.

Engineering Manager at Australian Rollforming Manufacturers (ARM), Henry Wolfkamp, said, "Courses on roll-forming tend to become very tooling design oriented or, the practical ones tend to share experiences that are based on the type of industry that the particular teacher comes out of, or the type of machine they gained that experience on. These learnings rarely transfer successfully to other sectors."

Wolfkamp is a member of the core team working closely with registered training organisation Kangan Institute and content developer, Frontline Group, to ensure that the training modules meet the needs of industry.

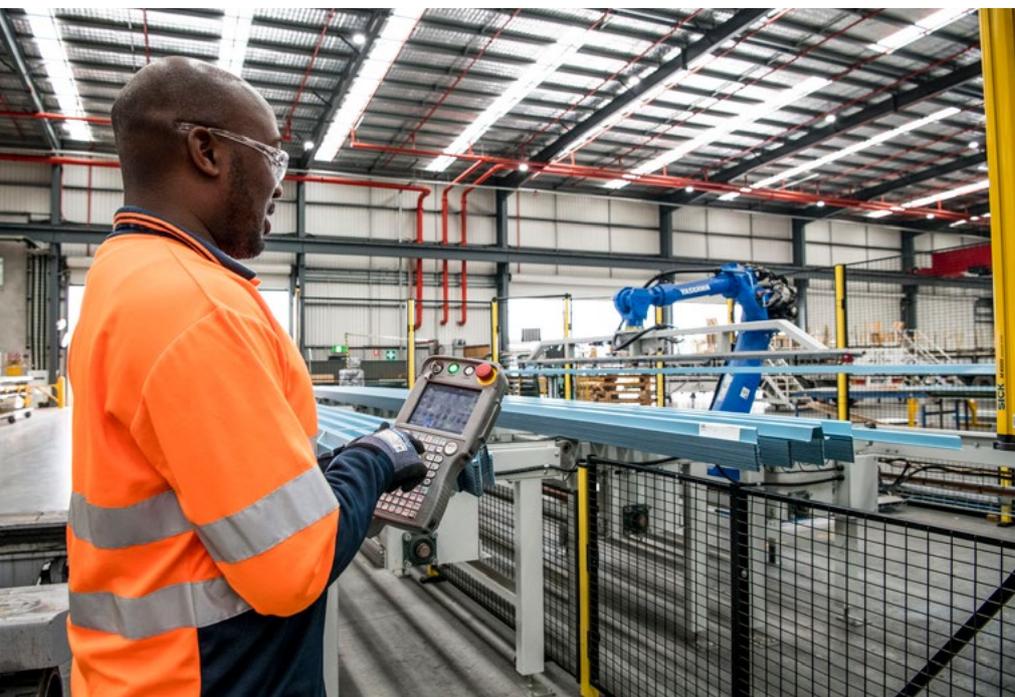
As someone that has spent most of his working career in the roll-forming industry, Wolfkamp is well placed to observe that, "Roll-forming has traditionally been seen as a bit of a black art with very little science attached. Operators rely on having varying degrees of experience to learn what to do (or not to do). The better operators develop a few rules of thumb to make their set-ups and adjustments a little more predictable. Learning tends to be a bit of a 'try something and see what happens.'"

In explaining why he is committed to helping develop the Certificate II course, Wolfkamp said, "The purpose of the roll-forming course is to draw on

the learnings of various R&D groups to impart a deeper level of understanding into the operator so they can see why things happen and not have a knee-jerk reaction to trying to fix a problem in some haphazard or ad hoc manner. If we can do this in a structured format, we will hopefully achieve a consistency of understanding across the industry. This will enable operators to discuss roll-forming issues based on a common understanding of why something occurs and how to efficiently troubleshoot."

Andrew Spence, National Operations and Supply Chain Manager at BlueScope Building Components (BBC) is another member of the roll-forming course development team. He highlighted the potential career path and staff recruitment benefits of a nationally recognised qualification.

According to Spence, "The technical skills needed to operate roll-forming equipment are not well documented



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Andrew Spence, National Operations and Supply Chain Manager, BlueScope Building Components

## ROLL-FORMING: AN IMPORTANT SEGMENT IN THE AUSTRALIAN STEEL INDUSTRY

As an essential manufacturing process used to transform sheet steel into profiled shapes, roll-forming is an important segment within the Australian steel industry.

Products resulting from the roll-forming process include:

- Corrugated roof sheeting
- Guttering and downpipes
- Wall cladding
- Structural purlins and girts
- Steel building frames
- Garage doors
- Fence posts and panels
- Highway guard rails and posts
- Structural decking and formwork for concrete slab construction
- Water tanks
- Culverts for drainage
- Racking and shelving

In addition to creating the required shape and profile for the intended application, roll-forming imparts improved mechanical properties that increase strength. The increased strength results in greater load-bearing or spanning capacity in service.

The profiles achieved through roll-forming may be quite challenging to accomplish, requiring complex multi-stage rolling assisted by state-of-the-art computer control. The tooling required to produce these profiles demands a scientific understanding of metal deformation and flow under load.



or able to be consistently transferred to new operators. Our internal training doesn't deliver any recognisable qualification for our people, creating an additional challenge when trying to attract talent. A vocational training program that addresses these issues will improve our ability to provide high quality, consistent products for our customers and it will reinforce our commitment to delivering this through engaged and capable people."

Representatives from ASI member companies, Apex, ARM, BBC, Dematic, Metroll, Rondo, Steeline, Stramit, and Stratco have been providing guidance and teaching resources to the initiative as it takes shape. This same steering group is now investigating online deployment of the training course as an alternative delivery method to traditional

site-based classroom training. Steeline Chief Executive, Andrew Walsh, welcomed the possibility of online deployment, commenting that, "Many of our Steeline Group members are located in regional areas, so the possibility of gathering enough numbers to make classroom style training worthwhile just isn't practical. We are watching with interest to see what will be possible with internet delivered training."

### FURTHER INFORMATION

For more information on ASI vocational training initiatives contact:

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- Steel Shed Assembly: Neil Creek [neilc@steel.org.au](mailto:neilc@steel.org.au)
- Roll-forming Operation: David Varcoe [davidv@steel.org.au](mailto:davidv@steel.org.au)

**Above**  
Operator observing purlin mill operation. Image courtesy of Stramit Building Products.

**Left**  
Operator supervising automated stacking of roll-formed building components. Image courtesy of Stramit Building Products.

**Below**  
Excerpts from one of the ASI's training modules.

