



Making the Workplace Safer

1. Transferability

Extent of application in Domestic and Commercial industry

The *SSS Roof Scaffold* system is simple and cost effective to use and hence is of use to all-housing construction and maintenance trades. The usefulness of the product is only limited to the imagination. Listed below are some of the related industries but many more trades and not forgetting the weekend handyman can now have a safe work platform to carry out all projects. The best part is you do not have to wait for a specialist to supply and install the product as in other alternatives, its were you require it and when you require it, thus you have no excuse for not complying

- Roof layers
- Bricklayers
- Carpenters
- Painters
- Plasterers
- Plumbers
- Renderers
- Electricians
- Glaziers
- Carpenters
- Cleaners
- Inspectors
- Home owners

2. The Innovation

Description

As a third generation builder with a team of employees I was constantly alarmed at the work methods and risk undertaken when working over roofs and other slopping surfaces. With the state government and work cover bringing in strict regulations in regards to working at heights and the general feeling of alarm I knew we had to come up with a cost effective safe solution.

At the time the only solution was quick stage scaffolding or harness. Quick stage was useful on new homes where the roof has not been installed but on renovations it was really limited not to mention the exorbitant cost of quick stage, and harness were at best very hard to work in and does not create a safe work area.

When doing a renovation there is always a problem with access and damage to gardens and a lot of the time there is nowhere to put the quick stage scaffold. The current feeling is the job may take one to two hours to complete but to erect quick stage scaffold could take up to eight hours to erect and dismantle and the cost for this work would be extreme in some cases over three thousand dollars. There had to be a solution and there is.

The *SSS Roof Scaffold System* is a modular product, which is simple to install on **all roof types**. It creates a three-plank-wide work platform with handrails clear of the sloping roof. No other system will do this, with accessories to attach drop saws and various other tools. This creates an extremely safe work platform creating greater productivity and a higher standard of workmanship. A complete 6-meter section can be set up in under 9 minutes on most homes and commercial buildings at a fraction of the cost of traditional scaffolding.

The platform is one part of the *SSS Roof Scaffold* system we also have a step system that creates a safe system of access and egress up a roof as required by the code of practice. **And with accessories to adapt to any roof surface.**

The whole system has been tested by ETRS an independent testing group. And with other items currently being developed.

The *SSS Roof Scaffold* is specially designed:

- For use on Corrugated iron, Tiled and Slate roof surfaces
- Provides perimeter fall protection
- Maintains a constant height, safety rail
- Sloping Surfaces from 15° to 45°
- Three plank wide work surface
- Facility for a work bench surface for tools and materials
- Without damaging the roof surface OR its water proofing performance
- With heavy duty or light weight versions
- And folds into a lightweight package which is easy to transport

3. Risk Control

Hierarchy of control

At present the only safe way to work over sloping roofs is to have an appropriate harness. This is far from a satisfactory solution in the hierarchy of control the best solution is to have a work platform with full safety rails that is fast to install and fully transportable so it is easy to install and move around. The *SSS Roof Scaffold* system will do this.

There are two methods of installation.

The first is you install the system before the roof cladding is placed. Due to the lightweight structure of the system it can be easily lifted and roof cladding placed under the supports at a later time. But the safety rails are still in place the whole time.

The second method is to install over an existing roof. This method requires the wearing of a harness to install the base of the system. It would require the harness to be only used for a short amount of time. Once installed the system has a 3 plank work surface and safety rails thus the harness would no longer be required which makes the system a far better option and the preferred method for working at heights.

Access and aggress

The SSS Roof Scaffold system also has a product called a gable step climber. This system is a module of 3 steps that is fully adjustable with hand rails that allows any person working at heights to safely access and aggress to the work platform which is the preferred method for working at heights.

4. Risk Profile

Reduced health and safety risks

The SSS Roof Scaffold system has reduced the risk of falling from heights for our organization and other organizations around Australia. The method we prefer to adopt is the system is set up at the start of the job. The great thing about this is all trades can then use the system to carry out all related trades. The system started as a cost effective alternative but we found the trades became reliant on it and due to its ease of use and its transportable. We found that the speed of the job was greatly increased but the quality was also greatly increased. So we have a win win situation we win because we have a far cheaper and time saving alternative but the real winner is the homeowner, they get a far better and safer job at a cheaper price. With the cost savings passed onto the owner it keeps the housing sector in an affordable price range.

5. Commitment

Occupational Health and Safety

The commitment to occupational health and safety is evident in the SSS Roof Scaffold system. As there was no cost effective safe system available for workmen and weekend handy men they were constantly putting their lives at risk on a daily basis. The system folds away in a compact space so there is no valid reason for not having the system in the work van or ever sedan at all times.

In the order of hierarchy it is the preferred method as it supplies a work platform with handrails. The whole system has been engineered approved as well as being load tested to Australian and New Zealand standards and complying with Work cover requirements.

The whole system has a detailed instruction Manual and easy order system making it accessible to all people in any field working at heights. Thus the commitment is all people now have a safe approved alternative to unsafe work practices.

The inventions designers commitment to a safer working environment is second to none. The monetary and development input is all self funded with over \$250,000.00 dollars to date being injected into the system.

6. Consultation

The *SSS Roof Scaffold* is currently being used on domestic housing and renovation projects as well as commercial buildings across Australia. The feedback received from builders and subcontractors has been overwhelming. It has also assisted the ongoing process of development of accessories including

- Heavy Duty Version (for bricklaying work etc)
- Perimeter Protection
- Drop Saw Mounting Bracket
- Tool holders
- Gable steps – fully interlocking for access and egress from roofs
- Ladder access points

The innovative *SSS Roof Scaffold* system is now released across the Australian Building Industry to provide a **Simple, Strong and Safe** work surface above sloping roofs. Saving a considerable amount of Money and Storage Space. This product provides a cost effective solution, which will result in houses being built faster, safer and to a higher quality finish.

The Team

Over the past 3 years we have not only used my own experience, but employed a specialist team of structural engineers, materials specialists, manufacturers, Business planners and safety advisors to assist in designing a product which was simple, light weight and cost effective. And listening at all times to our team of employees as to ways of bettering the system.

Most importantly we have spent the last eighteen months trailing the system with other builders and a cross section of subcontractors to obtain first hand feedback on its performance during installation, during the stages of house construction and its removal. This has allowed minor fine-tuning of the design but more importantly the design of accessories, which assist different trades, or its use around features such as chimneys, gables, dormer window etc.

The *SSS Roof Scaffold* system is simple and effective. This has been achieved, however, by an exhaustive design process, which continuously strived to achieve the original vision.

One of the best things to come out of the research was the constant comment that the speed and quality of the job has improved which actually saved money so the product was intended as a safety product and has achieved this with flying colors but has improved productivity and saved on money

Benefit to the Building Industry

STATISTICS

- In Australia “ fall from height” explains 14% of the annual workplace death toll (NOSHC, 1998)
- The construction industry represents 54% of all “fall from height” fatalities.
- Construction represents 27% of all “fall injury claims”
- Cost of claims to construction industry is \$15m and average \$57,000 per claim
- Injury severity is 2¹/₂ times greater in Construction than average of all claims.
- Falls >2m. The highest injury rate occupations below total >50% of all falls

QUOTES FROM CLAIM FORMS

- *“Lost footing on new galvanized roofing, slipped and fell”*
- *“Walking on roof slipped on fiberglass roof and fell to the ground”*
- *“Slipped on icy roof”*
- *“Slipped from house roof – injured lower back”*
- *“Fell of two storey house roof”*
- *“Ladder collapsed upon reaching roof height*
- *“Broken heel – Fell off roof”*

The benefits to the home building industry, does include reduction of pain and suffering from fall related injuries. It also will reduce the related cost indicated above. What is not easily quantifiable is the savings and improvement that will result from Home Building tradesmen working from a stable work-surface. These include

- Doing the job safer
- Doing it faster and
- Achieving a better quality finish

Cost effectiveness of its use

1. Pricing

The Builders Kit price has been provided below. It includes the recommended base kit for a builder. All components are available separately to suit each users need

SSS Subby Pack

• Professional Contractor Bracket	\$ 495.00 ea	x 3	
• End Protection	\$ 70.00	x 2 pairs	
• Tile Adaptors	\$ 110.00	x 3 pairs	
	TOTAL		\$ 1800.00

Cost Comparison

The current cost comparison to do a second storey extension is shown below:

- Traditional scaffold: - **\$220.00 / lineal metre** installed (Hire Rates)
- SSS Scaffold system: - **\$ 27 / lineal metre** installed (Hire Rates)

In short, the *SSS Roof Scaffold* system has paid for itself in only one use

2. Transportability

Each Module folds down to 200mm x 180mm x 1100mm and weighs less than 15 kgs. They can be easily handled and transported in a family sedan, tradesman's vehicle or trailer which mean they are constantly available for use at any time (see attached photos and video)

3. Ease of storage

As shown in the photos and video, the base modules fold up to a compact unit, which can be easily stored. The storage space reduces to 200x80x1100mm per unit when place alternatively. In short 50 brackets will fit on one pallet saving storage space.

4. Cost of installation

The SSS Subby Pack takes approximately 9 minutes to install as compared to a full scaffold from the ground which would take over 3 hours to install (not including dismantling and transport and storage time). The *SSS Roof Scaffolding* system can also be used without planks as **perimeter protection** eliminating another cost. Traditional scaffold usually requires the use, of large trucks to transport the scaffold to and from sites. Top hung scaffolds often prevent access to finish roofing, cladding, eaves, spouting etc which delays time to lockup. The *SSS Roof Scaffold* system will help get owners into their homes sooner and builder's payments made earlier. A win for all!

7. Ownership

The owner of the *SSS Roof Scaffold* system design and business is:

Trading As *SSS Roof Scaffold*

Brunsen Pty Ltd.

Peter Searle (Managing Director)

Australian and International patents are in place.

Victorian Workcover Authority, Notified Design, Confirmation No. V0220090

Attached

- *SSS Roof Scaffold* Brochure
- *SSS Roof Scaffold* CD Rom
- *SSS Roof Scaffold* Installation Instructions
- *SSS Roof Scaffold* Retail Price List and Order Sheet