

The logo for HOWICK, featuring the word "HOWICK" in a bold, blue, sans-serif font. The letter "O" is replaced by a stylized icon of a cube or a three-dimensional shape with a white center and a dark outline. The logo is positioned in the top left corner of the page, which is partially overlaid by a white and orange geometric shape.

HOWICK



**Shaping
the world of
construction
with smart-build
LGS construction**

Changing the world of construction may sound grandiose, but that is exactly what drives us at Howick. The cost of housing is a major issue throughout the world. Fast-build, offsite and modern construction technology with light gauge steel (LGS) is part of the solution.

With timber prices through the roof, and traditional building practices stuck in the mud, now is the time to act.

Howick makes precision roll-forming technology for light steel framing. Based in Auckland, New Zealand, we have been pioneering and innovating in this space for over 40 years. We manufacture high precision machines that are employed by smart construction businesses in over 75 countries.

The argument for LGS is simple – more cost effective, faster, stronger, and more efficient. Construction with LGS has many advantages over traditional timber for framing. Faster build times, greater accuracy, up to 70% less waste, and weighing in at 30%-60% less, LGS is easier to manoeuvre onsite. Plus it is completely recyclable.

Each of these is a compelling argument by itself, but together, they offer a blueprint for more efficient, sustainable and mutually profitable construction.

Howick clients have transformed their construction businesses all over the world when they have switched to offsite steel framing construction technology. In case after case, businesses have boomed as they realised the advantages.



10x growth for early adopter **Frameclad**

Frameclad, based in Dudley, were early adopters of LGS. Their turnover has increased ten-fold in just six years and they are on a 25% year-on-year growth trajectory.

Founder and Chief Executive Mark Munns says Frameclad's growth as a manufacturing company can be attributed largely to its focus on investment in state of the art machinery, modern facilities and in quality personnel.

A Howick automated roll-forming machine was an early purchase, the first of four Howick machines. It provided capacity, speed and a level of complexity and sophistication of product that placed Frameclad at a distinct advantage.

Very quickly Frameclad recognised and seized the opportunity to commence the manufacture of pre-made framing packs that can be supplied loose or assembled.

Embracing smarter ways of doing things has gained Frameclad a leader-of-the-pack reputation over the years. Frameclad has also acquired a number of impressive accreditations, including the hard-earned NHBC/SCI accreditation and BOPAS for both infill and load bearing systems.

Framing success at Synergy Steel

Synergy Steel is a great example. Originally a timber construction company, it is now an industry leader in LGS framing automation and steel, and a poster-child for cutting-edge construction technology.



Synergy Steel Co-Founder and President Michael Iagnemma had been watching developments around steel framing in New Zealand, Australia and Canada, and saw an opportunity to introduce this concept to the US. He saw that Howick was well positioned to provide the innovative steel roll-forming technology required – resulting in a range of machines being supplied over the years.

Co-Founder and business partner Brian Iagnemma highlights the design and technology side of operations as unequivocally the most important aspect in their success.

“It’s what truly separates us. We blend lean concepts with BIM technology, factory management and onsite installation.”

Brian explains that with BIM technology, structures effectively get built twice. “We build virtually before we construct.” With 3D modelling, precision plans define specific material requirements, as well as identifying potential issues ahead of the live build.

Offsite manufacturing and panelisation (a prefabrication technique), are core operations now. Load bearing walls, flooring systems and roof assemblies are all built offsite at Synergy Steel premises, then delivered ready for installation.

The team has found the controlled environment of the factory provides many advantages. With lean

manufacturing, they minimise waste and reduce staff down time. Greater efficiencies, design flexibility, lower labour costs, and improvements in sustainability are all part of the picture. A clean environment also equates to improved staff safety.

Overall, the firm’s transition has enabled exceptional growth. They now have a backlog of work stretching to 24 months and involving roughly 5,000 units.

Howick is thrilled to play a part in this growth. The four new machines joining the Synergy Steel workforce include three more Howick FRAMA™ 5600 systems and a FRAMA™ 7600 for a total of seven roll forming machines.

The Howick FRAMA™ 7600 gives Synergy Steel a lot of flexibility. It is a convertible profile frame and truss system with Howick’s unique end-bearing stud detail for true load-bearing frames.



Tober Building optimising opportunities with Modular Construction

Offsite fabrication allows you to be more precise and that leads to better efficiencies and less waste. Creativity is in no way sacrificed.

This is a view totally supported by another Howick client, Tober Building Company (TBC), another firm that has transformed from traditional building methods and realised the benefits.

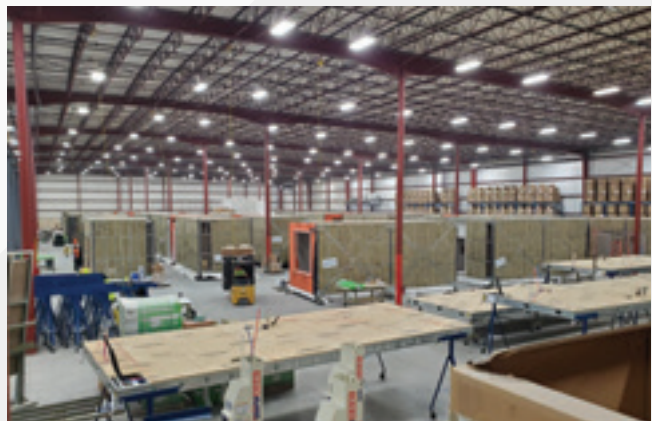
With over 20 years of construction experience under his belt, Todd Tober made the call to embrace modular building some years ago, using Howick technology from the get go.

Then in 2018, Todd started Tober Volume Elements (ToVee) as the specialist offsite and modular construction arm of TBC. ToVee sees modular as the future of commercial construction, applying smart offsite manufacturing technology to reduce costs and compress schedules without sacrificing quality. Building the ToVee way is ideal for multi-family projects, student housing and hospitality construction.

Todd could see very early on in his journey as a developer that there was a potential for adding a lot of value by controlling a portion of the development in an offsite manufacturing system.

“We started with a wood concept and very quickly realised that to maintain quality and consistency we needed to switch to steel for framing and do it in a way that enabled us to manage quality control. We reviewed several roll-forming machines and manufacturers and decided to base our manufacturing process on the Howick system. The Howick FRAMA™ 5600 has been an amazing machine that has allowed us to really standardise our product.” said Todd Tober.

The FRAMA™ 5600 is able to manufacture heavier and wider sectioned frame and trusses with ease. It forms material of up to 1.6mm / 16 gauge in thickness, producing up to 800m / 2620ft of framing per hour. It is designed for a gauge range of 0.95 to 1.55mm / 20 to 16 gauge, making it ideal for many residential and commercial applications.



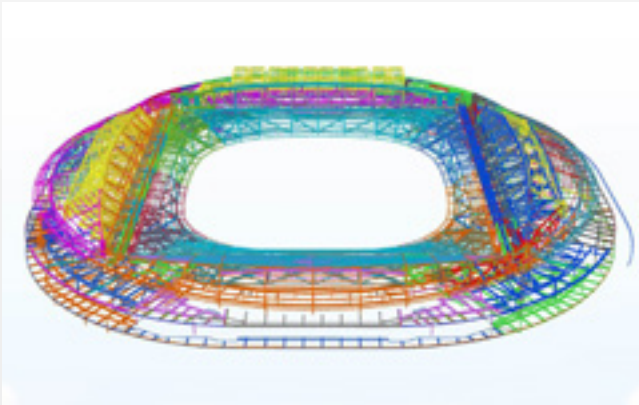
Todd's adoption of steel grew out of his realisation that traditional, onsite construction is inefficient, costly and unpredictable. By taking the process into a factory setting, ToVee eliminates key factors driving these issues.

Production of the ToVees, which includes all framing, rough-ins, and finishes, takes place in designated areas throughout the factory. By controlling most of the process, they stay on time and on budget.

Modular manufacturing is an exercise in efficiency. Basically, building in the factory is faster, cleaner and safer than in the field.

Tober has recently added a Howick FRAMA™ 7800 system. Todd revealed, “We have been printing our own wall studs with a FRAMA™ 5600, and purchasing floor and ceiling joists through local manufacturers. Once we knew that our modular concept was viable, we decided to manufacture our own wall studs, plus floors and ceilings”.

Game set and match by EOS



Steel framing proved to be the winner on No.1 court at Wimbledon. This iconic sporting venue has seen a lot of high pressure moments on the courts over the years but this being England, rain can put a real dampener on the fun.



The decision was made to install a retractable roof to defeat the English summer. Howick's client EOS was commissioned to build the roof. Speed was essential because they had to work around the tournaments. Not meeting the deadline could result in a £10 million loss of revenue to the club.

This is where LGS shines. Howick's FRAMA™ 5600 machines are fast and incredibly accurate.

“The ability Howick machinery has to cut, notch and dimple with precision allows EOS to innovate and pre-assemble important parts of the façade within the factory. This means we can deliver accurate, quality controlled products to site pre-assembled – providing speed on site.” EOS.

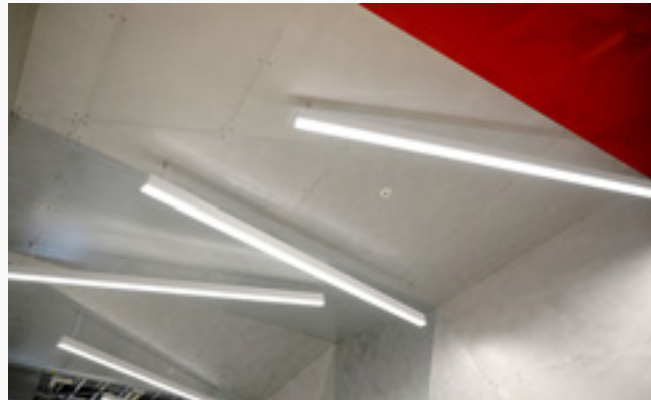
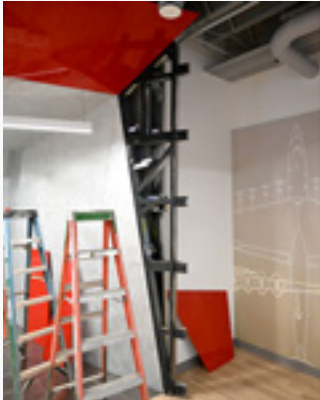


Using the Howick FRAMA™ 5600, EOS were able to produce a variable radius curved wall that could be used for both support and as a screening structure. The design included a range of features including bespoke, highly resilient wind posts, bracketry stiffened with uniquely modified elements and tall cantilevered solutions. EOS also provided lightweight LGS C Section Studs, reducing the load on the foundations and supporting elements.

Because the design was BIM modelled and manufactured in factory-controlled conditions, site issues were virtually non-existent. The sections were cut to length with compound sections pre-assembled, and bundled in colour coded groups, reducing installation times. This, combined with the fast turnaround steel-frame allows, meant the tight deadline was aced.

Complex projects simplified by **STUDIO Construction**

Precision accuracy is another benefit of offsite, an advantage realised by STUDIO construction in California. They specialise in designing and building complex and curved geometry using LGS.



STUDIO were engaged to assist in the computational design and fabrication of a sculptural gateway called The Portal, for a new medical clinic in Playa Vista, California.

The design of The Portal, by architectural firm SLAM, had no two matching panels, and its adjacent panels were set at varying angles. With a total of 32 unique triangular facets, an innovative approach was required to fabricate and assemble it within the tight time schedule and budget available.

STUDIO partnered with KHS&S West to develop a design-to-fabrication workflow that would ensure the project's success.

Two Howick roll-forming systems were put to work to output the components – the Howick FRAMA™ 5600 and Howick FRAMA™ 3200, which are both fully functioning, dedicated frame and truss component manufacturing machines.

STUDIO founder Scott Mitchell says the use of these systems simplified the complex project in terms of the

variety of components, and elevated the precision of its details.

The FRAMA™ 3200 is the go-to Howick workhorse for standard framing requirements, producing up to 900m / 2952ft of framing per hour. When they needed greater load capacity, they turned to the FRAMA™ 5600 which forms material up to 1.6mm / 16 gauge of thickness and can produce up to 800m / 2620ft of framing per hour.

The constructible solution involved light gauge steel studs as supporting frames for each triangular facet. CNC-punched fastener holes on the studs aligned with laser-cut holes on the aluminium panels for precise placement at controlled angles.

“In order to maximise our team's efficiency, we replaced components like clips or custom brake shapes with CNC studs to maximise the use of Howick machines. In the end The Portal's frame and finish were installed onsite with one sixteenth inch tolerance in just three days,” Scott enthuses.

Steal the advantage. Make the shift to LGS for construction

Now is a good time for the construction industry to reflect on how they want to move forward. Soaring project costs and timing overruns serve few people. Joint CEOs Aaron Holm and Nelson Del Rio of Blokable Inc. make a great point. They reasoned that we would never contemplate building our own car onsite, we would never design, engineer and fabricate all the car's parts on a driveway, and yet that is exactly what we do with our houses.

Smarter construction practices can solve many of the issues the industry faces and are needed now more than ever.

The Howick toolkit to fast-track any build with LGS

Thinking of LGS and offsite for your business? Here is a brief insight into how the different Howick systems play, depending on your construction needs.

- ▶ Want a great compact workhorse system that will produce most standard framing requirements for housing and low-rise? **Look no further than the FRAMA™ 3200.**
- ▶ You want a workhorse capable of making heavier load-bearing framing for large build projects, low-rise and commercial with greater capacity and increased flexibility? **The FRAMA™ 5600 is the right horse to jump on.**
- ▶ You want a dedicated truss system that is highly efficient and produces in volume? **Step up to the FRAMA™ 4200 and try that for size. It is the system you can truss. (See what we did there?)**
- ▶ You want a dedicated flooring system that is better than traditional lattice flooring? **The FRAMA™ 6800 pops out floor joist cassettes with gusto. Plus, you will find them much more efficient to install.**
- ▶ You want a convertible frame and truss system with high output capacity that can be adjusted to handle 5 different profiles in the one machine? **Welcome to the ultimate flexibility of the FRAMA™ 7600.**
- ▶ You want a fully convertible system with even more options than the FRAMA™ 7600? **The FRAMA™ 7800 is the big brother of all the rest, offering 5 different profiles. It can be configured for floor joists, framing, or customised for both frame and joist tooling.**
- ▶ Want the fastest way to build retrofit and infill framing for interior spaces? **The X-TENDA™ 3600 makes telescopic framing that is extendable in any direction to fill any space fast. It is the latest innovation in infill framing technology.**

FRAMA™ RANGE

FRAMA™ 3200



FRAMA™ 4200



FRAMA™ 5600



FRAMA™ 6800



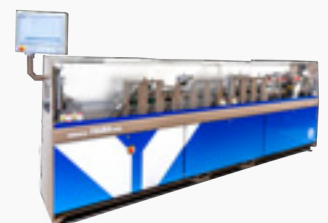
FRAMA™ 7600



FRAMA™ 7800



X-TENDA™ 3600



Free Machine Buyer's Guide

If you are thinking about smarter ways to build, and you are considering LGS, make an informed choice. **Download our free Machine Buyer's Guide today.**

It will cover all the key considerations to help you pick the right technology from the outset.

For further information on Howick or our technology, contact Head of Global Sales, Deon Anderson, at deon@howickltd.com. Alternatively, visit our website at www.howickltd.com



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