MARCH 2023

STRUCTURAL STEEL

INDUSTRY UPDATE

SCNZ STEEL CONSTRUCTION NEW ZEALAND®

Market update – 28% spare capacity

The first hint of a slowdown in the construction industry is beginning to emerge although, on the ground, it continues to operate at a rapid pace. Figures from the latest Statistics NZ building activity report suggest the volume of building activity was down 1.6 percent in the December 2022 quarter, compared to the previous quarter. It's the first drop in the total volume of building work since the COVID-affected September 2021 quarter.

While residential activity fell 2.6 percent, non-residential building work rose a modest 0.4 percent. This is backed up by the structural steel industry's own experience – anecdotally, commercial enquiries have plateaued and there has been a drop in apartment construction. It's having a subtle balancing effect on the market.

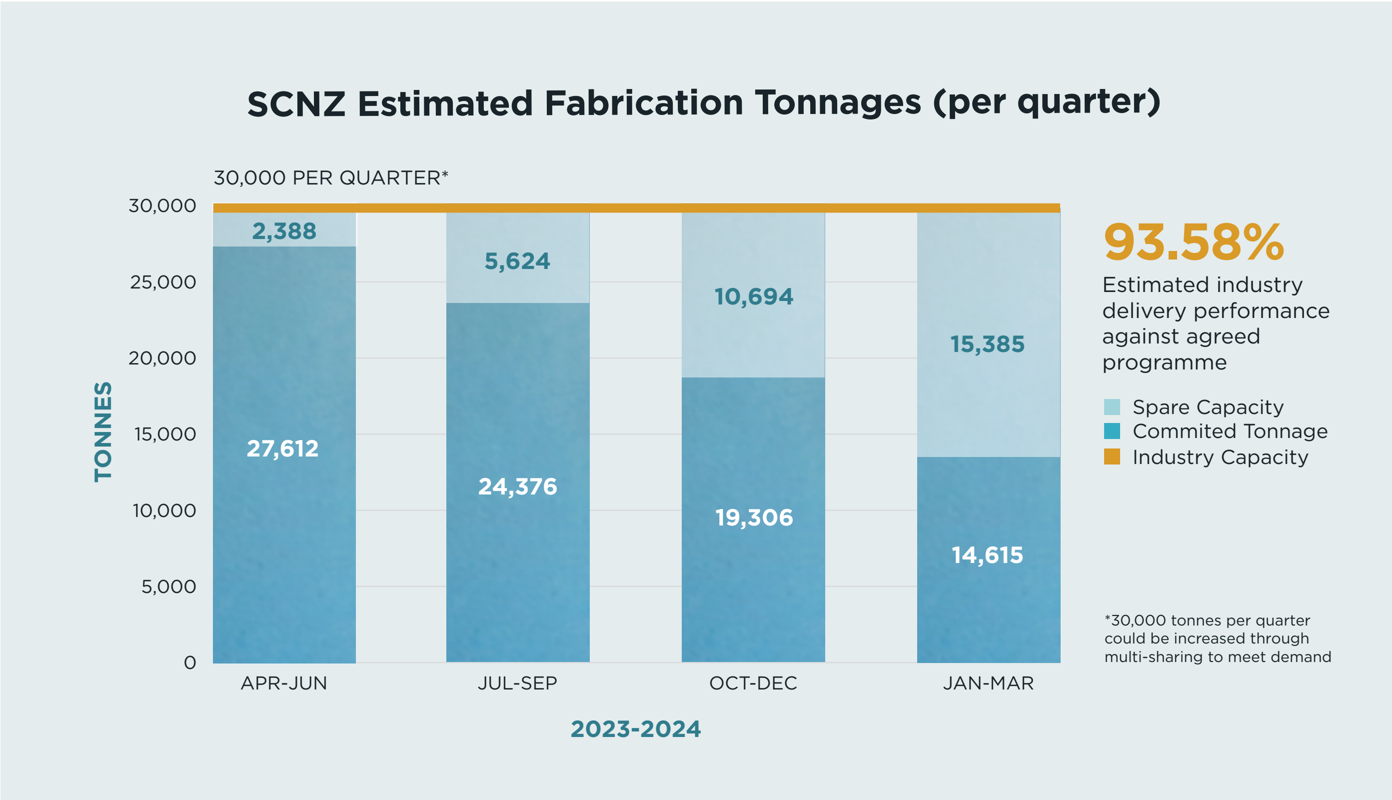
In the wake of the recent extreme weather events, there will be significant demand for infrastructure projects. Our structural steel industry has the capabilities to assist with replenishing these vital assets. With a proven knack for 'thinking outside the box', our technology, skills and experience in vertical construction are transferrable to the horizontal sector.

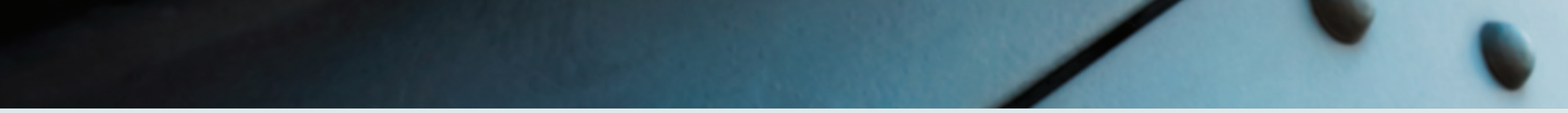
Importantly, we also have the capacity.

SCNZ's latest quarterly fabricator forward-workload survey indicates there is considerable spare industry capacity for the year ending March 2024 – estimated at 28 percent, based on a current estimated total capacity of 120,000 tonnes per annum.

But it's not just our combined plant capacity; we have the 'people power' to deliver. The structural steel industry has worked hard to bolster its ranks since COVID. Our industry has tapped into the new immigration settings to recruit the right people and is collectively on top of the skills shortage.

David Moore
Chair, SCNZ





The ‘6Cs’ – the local steel advantage

CARBON: Our structural steel industry is working to reduce its emissions and progress towards a circular economy with the support of the Sustainable Steel Council (SSC) and the Heavy Engineering Research Association (HERA). Our aim is for steel to be a critical enabler in New Zealand’s journey to a low-emissions economy. Notably, a zero carbon steel offset programme has been developed; 95 percent of steel waste in construction is recycled; and research is underway into carbon-alternative reductants for the steelmaking process.

COLLABORATION: Our highly collaborative network of 153 fabricator companies has proven ability to meet demand, regularly partnering with each other nationwide – and with the head contractor and lead consultants as part of Early Contractor Involvement (ECI) – to ensure a project is delivered to a high standard, on time and on budget. From the get-go, ECI allows our fabricators to add value to the design team by helping to explore buildability, timeframes and risk. The approach delivers projects that carry much less risk, enjoy fewer variations and are typically better planned.

CAPABILITY: Our structural steel industry has proven capability to handle a range of construction projects. Local investment in R&D and innovation has led to world-firsts in seismic load-resisting systems and performance-based fire design. We are also committed to developing our people: more than 10 percent of the total workforce employed by local structural steel contractors are in a training programme, and 70 percent of structural steel contractors employ an average of five apprentices.

CAPACITY: The industry has proven capacity to deliver on all projects. Combined with the latest estimate, which indicates there is 28 percent of spare capacity, there is no need for procurers to go offshore to satisfy demand. In the past 12 months alone, the New Zealand structural steel sector turned approximately 100,000 tonnes of structural steel into buildings and bridges through its network of steel distributors, fabricators and erectors.

COMPLIANCE: New Zealand’s structural steel industry has delivered multiple initiatives to drive best practice and help ‘raise the bar’ across the sector. Today, quality and compliance are at the core of SCNZ activities and the structural steel sector is leading the wider building industry in this space. SCNZ’s industry-led quality scheme Steel Fabrication Certification (SFC) ensures that participating structural steel contractors have world-class personnel and quality management systems in place – 90 percent of the sector’s annual output is now delivered by SFC-qualified fabricators. SCNZ’s Structural Steel Distributor Charter complements SFC by ensuring that structural steel is sourced using best-practice procurement – all seven SCNZ Distributor members have been independently audited to satisfy the requirements of the Charter.

COMPETITIVE: Structural steel is a cost-effective building solution. Investment in fabrication technology and workshops, and the modern approach of simple bolted connections, has improved productivity in New Zealand’s structural steel industry. Overall construction programmes for multilevel commercial projects using structural steel are generally 10-15 percent shorter compared to other materials.

Industry who’s who

Manufacturers (steel mills) produce structural steel products, including hot-rolled elements (I beams and columns, channels, plate and angles) and hollow sections (circular, rectangular and square).

Merchants / distributors import steel for use in the construction industry. Such companies have extensive warehousing facilities to carry a large inventory required to service market needs and provide limited pre-processing of structural material prior to fabrication.

Structural steel fabrication companies physically prepare the structural steel for a building or bridge through a process of developing detailed drawings (the work of a detailer) based on the construction drawings provided by a structural engineer. They are responsible for material management, cutting, drilling, shop fitting (bolting or welding), painting and galvanising (when required), and shipping.

Erectors assemble the structural steel members into a structural frame on the project site by bolting and field welding structural steel components together according to the construction documents. In New Zealand the fabricator will typically manage the erection process of its steelwork either through the use of its own rigging crews or subcontracted resource.

Key industry facts

In the past two decades demand for structural steel solutions has grown substantially. Today, structural steel’s share of the multilevel construction market is more than 50 percent nationwide. In Christchurch, due to structural steel’s strong seismic performance, its market share is over 80 percent – up from virtually nil before the Canterbury earthquakes.

Market share: 50 percent nationally and >80 percent in Christchurch.

Annual output: circa 100,000 tonnes in the past 12 months.

Structural steel fabrication companies: 153 nationwide.

Current annual capacity: estimated at 120,000 tonnes, which could be increased by multi-shifting to meet demand.

Employment: approximately 5,000 workers.

Industry investment: significant investment in several new state-of-the art workshops since 2007.

Fabrication certification: 57 structural steel fabrication companies representing 92.5 percent of the sector’s annual output participate in independent quality assurance scheme SFC.

For more information about who’s who in structural steel, visit scnz.org and steelfabcert.co.nz

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