



STELTECH®
VERTEBEAM®

AN ELEGANT
SOLUTION FOR
THE BACKBONE OF
YOUR BUILDING.



STELTECH®
OPTIMISED STEEL - SMART SOLUTIONS



AN ELEGANT SOLUTION FOR THE BACKBONE OF YOUR BUILDING

ELEGANT SOLUTIONS FOR COMPLEX PROBLEMS

Steltech®'s reputation has been built around innovation. Since we began in 1987 we've constantly sought new ways to minimise waste, create tougher, more durable structures, and deliver optimised, cost-effective solutions.

In keeping with that mindset we recently partnered with Donovan Group Ltd (DGL), an industry leader in the design, fabrication and erection of portal frame buildings, to co-develop a nested tapered box beam.

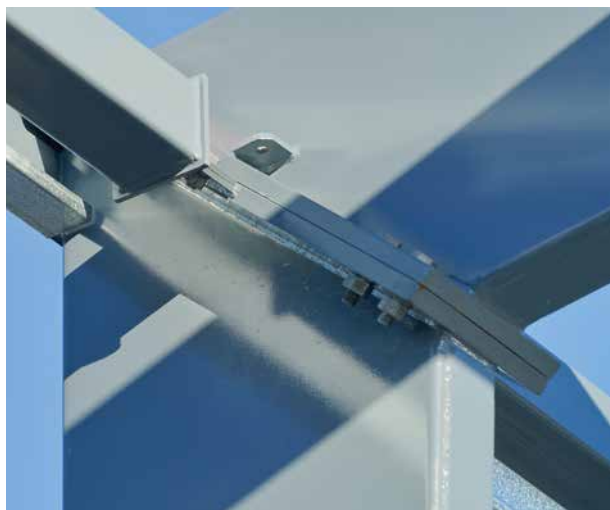
The result is Vertebeam®, a lightweight yet incredibly strong product that is quick to install and gives architects real scope to bring cutting-edge designs to life.

A PRACTICAL APPROACH

Our aim was to provide a smart solution to a genuine problem, and the design and development phase involved considerable input from customers, construction professionals and key stakeholders alike.

We used a build, measure, learn and adapt model, developing an in-depth understanding of the consumer's needs and then working hard to find the most effective, functional solution.

This approach has led to rapid advancements in an industry where innovation is traditionally focused on small, incremental changes, rather than entirely new value propositions.



STRONGER, FASTER, BETTER

The Vertebeam® portal frame solution promotes NZ-made products and presents the market with a genuine, quality alternative to imported hot rolled beams. Vertebeam® offers a more robust design solution [compared to cold formed sections] for medium-span buildings, and a solution that is lighter than hot rolled sections. They also offer a variety of other benefits, not the least of which is the more elegant finish they lend to a project.

SLEEK AESTHETIC

Adding not only strength and stability to a building, Vertebeam® enhances the aesthetics, contributing to the visual appeal and distinctiveness of architecturally-designed structures.

COST-EFFICIENT

While the bulk of the cost savings associated with Vertebeam® come courtesy of weight savings [they are, on average, 10% lighter than hot rolled sections] there are also significant advantages when it comes to fabrication. The simple geometry makes it quicker and easier to paint a Vertebeam®, streamlining the overall production process.

CUSTOMISABLE

Vertebeam® is a fully customisable system, with good bending resistance and optimal torsional stiffness creating a solid backbone for the construction of a strong, sturdy building. What's more, when compared to cold-formed portal frames, projects using Vertebeam® demonstrate a 10% reduction in time-to-occupancy.

BIRD PROOF

The flush layout of beams, girts and rafters makes a building constructed from Vertebeam® virtually vermin-proof, a fact that's particularly appealing for businesses operating in the food, storage and manufacturing fields.

CAPABILITIES AND SPECIFICATIONS

Vertebeam® has been specified on projects featuring 65m clear spans.

Produced from coil plate folded into two tapered C's nested inside one another, Vertebeam® is manufactured using 6-10mm thick AS1594 HA350 plate to a design based on AS/NZS4600:2005. This structural design methodology was verified by HERA, the Heavy Engineering Research Association.

Developed in partnership by Steltech® and DGL, the intellectual property behind Vertebeam® has been patent protected.

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