

# DONOBEAM



[www.coresteel.co.nz](http://www.coresteel.co.nz)

**0800 CORESTEEL**



## DonoBeam - Points of Difference

- Cost-effective system without compromising structural integrity
- Buildings not confined to set sizing - fully bespoke
- No obtrusive knee or apex braces
- Fully-bolted primary and secondary sections i.e. not TEK screwed
- Bird-resistant purlins and vermin-resistant girts
- Coresteel is your designer, engineer, manufacturer and builder all in one, which considerably reduces costs
- 50-year design life
- Coresteel is 100% New Zealand owned and operated

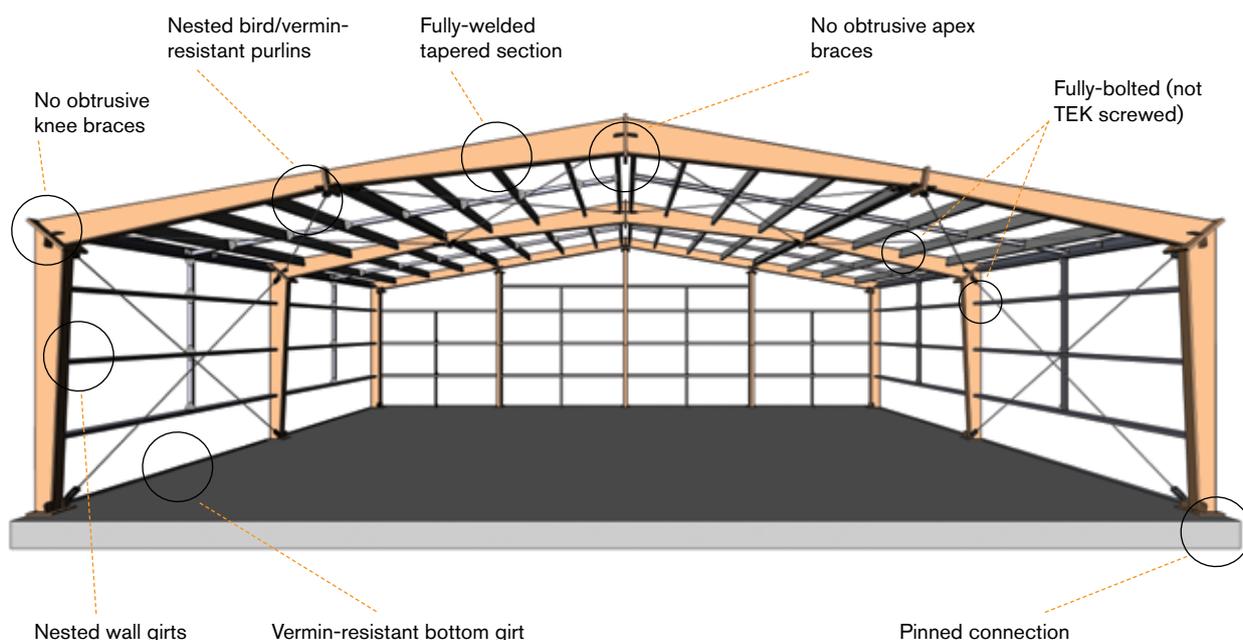


# What is DonoBeam?

The DonoBeam is manufactured by folding two halves of flat steel plate and welding them together to form a box. It is tapered through its length, utilising only the amount of steel required for any given design, yet without affecting structural integrity.

This design offers several exciting features, including bird and vermin-resistant properties, a reduced overall surface area (resulting in less steel and paint being required), plus a simple, quick construction process which reduces labour costs.

## DonoBeam Structure



It was a large build with heaps of precast, which turned out really well. The way in which the DonoBeam and supports were constructed was impressive. We will certainly consider Coresteel for our next project, which could be even larger.



Robert Bartley, Bartley Group Holdings Ltd  
Ali Arc Logistics, Palmerston North

# Cost benefits

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Because the amount of steel needed in the structure is less than industry standard, the cost is subsequently reduced.

Using tapered, hollow sections with internal flanges reduces the weight and square face meterage for paint area. Paint coverage is typically 28% less compared to I-beams, which creates further cost-savings, especially where high-level paint systems are specified.



# Quick to construct

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All of Coresteel Buildings' projects are manufactured in New Zealand by Donovan Group NZ Ltd (Coresteel Buildings' parent company).

When the steel frame is complete it is packaged up together with all fastenings and sent to the building site as a complete structural kitset.



Because each building is prefabricated, it is quick and simple to construct on site.

Within a few days the entire frame can be erected, without the need for onsite welding.



Due to the speed in which the building can be erected, significant labour cost-savings can be made. Ultimately, less staff are needed for a shorter amount of time.



Once the portal frame is complete, cladding and joinery is installed. Following this, the internal fit out begins.



A project that is completed on time and within the budget, results in a happy customer - the ultimate goal.

# Wider spans than ever before

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When space is an issue, DonoBeam allows for simply supported spans larger than many thought possible. To date, our largest span is 75m.

The bracketless, streamlined design also means customers can utilise more of the available space within their building's floor and ceiling area.



The Firth Masonry Plant building in Hunua (South Auckland) spans 70m, allowing ample space for storage, large vehicles and machinery.



The Nga Taiatea Wharekura Netball Court Canopy clearspans 38m, providing a safe, open space for school sporting activities.

# Sleek, stylish and versatile

The innovative design of DonoBeam allows Coresteel's inhouse design team to incorporate virtually any architectural or practical element into the design of your building.

Architectural features such as branded store fronts, attractive showrooms and modern reception areas are easily paired with practical aspects like racking, gantry cranes, mezzanine floors and cantilevered canopies.



Clockwise from top left: Farmer Autovillage - Nissan, Brother International, PlaceMakers Kaiapoi, Blackdog Steelworks (reception), Blackdog Steelworks (workshop), PlaceMakers Whangarei.



## Bird/vermin-resistant

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The DonoBeam design is bird and vermin-resistant, with several features that ensure this.

- A** All purlins are simply supported and have cover plates to eliminate roosting and nesting. This also prevents vermin from running along the bottom cord.
- B** No internal flanges mean no roosting.
- C** Purlins are nested flush to the fully-sealed box section rafters.



### **HERA verified**

The DonoBeam design has been independently checked and verified by the Heavy Engineering Research Association (HERA). HERA is recognised in both New Zealand and overseas as a leading authority in the design of steel structures.



Sheer size: Kerry McCollum, Head Engineer at Donovan Group NZ Ltd (Coresteel Buildings' parent company), stands between DonoBeam rafters for the Potato and Onion Storage, Waharoa building.

# Ali Arc Logistics



Length: 84m | Width: 50m | Knee height: 7.6m | Floor area: 3847m<sup>2</sup>

DonoBeam was an economical option, due to the relatively smaller steel member sizes which could still achieve the extremely wide spans required. The beams are also bird and vermin-resistant – a must for this food storage facility.

[www.coresteel.co.nz/building/ali-arc-logistics/](http://www.coresteel.co.nz/building/ali-arc-logistics/)

# Brother International Ltd

Length: 92.3m | Width: 65m | Knee height: 10m | Floor area: 6625m<sup>2</sup>

The Brother building was designed to maximise the budget without compromising on structural quality. The use of DonoBeam with Zed purlins and girts, proved to be the most economical solution and provided an extremely elegant result for this project.

[www.coresteel.co.nz/building/brother-international/](http://www.coresteel.co.nz/building/brother-international/)



# Farmer Autovillage - Nissan



The project features a showroom, workshop and 217m<sup>2</sup> canopy.

## Showroom

Length: 18m

Width: 20.9m

Knee height: 6.4m

Floor area: 388m<sup>2</sup>

## Workshop

Length: 42.5m

Width: 13m

Knee height: 7.4m

Floor area: 553m<sup>2</sup>

[www.coresteel.co.nz/building/farmers-auto-village-nissan-dealership/](http://www.coresteel.co.nz/building/farmers-auto-village-nissan-dealership/)



# Fonterra Kauri - Canopy



Length: 62.1m | Width: 28m | Knee height: 6.3m | Floor area: 1245m<sup>2</sup>

The bird-resistant properties of DonoBeam were essential in this project. The system ensures the area remains as hygienic as possible, due to its function as a milk reception area. The canopy was branded via the Fonterra-blue painted portals.

[www.coresteel.co.nz/building/fonterra-kauri-milk-reception-canopy/](http://www.coresteel.co.nz/building/fonterra-kauri-milk-reception-canopy/)

# PlaceMakers

Coresteel provided PlaceMakers the opportunity to utilise the DonoBeam technology in every one of their six Coresteel-built premises.

The list includes four retail stores and two truss plants.

- PlaceMakers, Whangarei
- PlaceMakers Truss Plant, Whangarei
- PlaceMakers, Kaiapoi
- PlaceMakers Truss Plant, Porirua
- PlaceMakers, Seaview
- PlaceMakers, Oamaru (in design)

View all of the Coresteel-built PlaceMakers buildings: [www.coresteel.co.nz/placemakers](http://www.coresteel.co.nz/placemakers)



PlaceMakers, Whangarei

Length: 73m | Width: 29m | Knee height: 7.6m | Floor area: 2455m<sup>2</sup>



PlaceMakers, Kaiapoi  
 Length: 68.2m | Width: 30m | Knee height: 7.5m | Floor area: 2047m<sup>2</sup>



PlaceMakers Truss Plant, Porirua  
 Length: 84m  
 Width: 50m  
 Knee height: 7.6m  
 Floor area: 3847m<sup>2</sup>

# Blackdog Steelworks



Length: 67.5m | Width: 37m  
Knee height: 8m | Floor area: 2498m<sup>2</sup>

The Blackdog Steelworks building in Whangarei includes two workshops, offices, a mezzanine floor, lunch room and amenities.

[www.coresteel.co.nz/building/blackdog-steelworks](http://www.coresteel.co.nz/building/blackdog-steelworks)

“

The Coresteel crew was excellent to work with and produced a quality building that looks and functions as we wanted it. We're extremely happy with the result and would recommend the Coresteel package to others.”

”

— Kevin Ogle, Managing Director



# PGG Wrightson



The project features offices, a retail area and bulk store.

#### Offices

Length: 22.1m

Width: 10m

Knee height: 8m

#### Retail

Length: 24.1m

Width: 18.7m

Knee height: 8m

#### Bulk store

Length: 44.6m

Width: 40m

Knee height: 8m

[www.coresteel.co.nz/building/pgg-wrightson/](http://www.coresteel.co.nz/building/pgg-wrightson/)

# Inex Metals Warehouse & Office



Warehouse: Length: 76m | Width: 46m | Knee height: 11.5m  
Office: Length: 20.7m | Width: 14.5m | Knee height: 3.9m

With a total floor area of 5786m<sup>2</sup>, the Inex Metals project utilises a DonoBeam structure for the warehouse, allowing for extensive spans, and less steel used, without compromising the structural integrity of the building. The office building features Coresteel's coldform Bracketless Portal System.

[www.coresteel.co.nz/building/inex-metals-warehouse-office/](http://www.coresteel.co.nz/building/inex-metals-warehouse-office/)



# View more on our website

View the following buildings on our website:

[www.coresteel.co.nz/buildings/tapered-box-beam](http://www.coresteel.co.nz/buildings/tapered-box-beam)

- Ali Arc Logistics
- Ballance, Rolleston
- Ballance, Westport
- Blackdog Steelworks
- Brother International
- Clelands Construction
- Deano's Kerbing
- Farmer Autovillage - Nissan
- Farmlands, Blenheim
- Firth Masonry Plant
- Fonterra Kauri - Milk Reception Canopy
- Grove Mill Winery
- Harvey Hangar
- Harvey Norman Distribution Warehouse
- Inex Metals Warehouse and Office
- ITM Bulk Store
- Jackson Enterprises
- Lindsay Taylor Transport
- Nga Taiatea Wharekura - Netball Court Canopy
- NZ Trucks
- PGG Wrightson, Blenheim
- PlaceMakers, Kaiapoi
- PlaceMakers, Porirua Truss Plant
- PlaceMakers, Seaview
- PlaceMakers, Whangarei
- PlaceMakers, Whangarei Truss Plant
- Reach Media
- Real Steel
- South End Ave Development
- Total Power
- Total Stockcrates Workshop
- Two Rivers of Marlborough
- Vulcan Steel
- West Coast Council
- Work and Income New Zealand - Whanganui





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