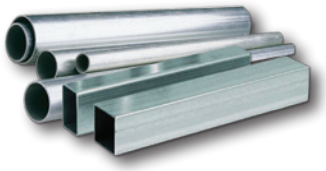
HEAVY DUTY
STEEL FRAMEWORK

STEEL SPECIFICATIONS

Norseman Structures uses heavy gauge, galvanized steel as a standard for our building's framework which ensures our Commercial line of buildings meet building codes, are safe and are built to last.



All of the steel that we use in our buildings meet standard steel specifications for whichever country we are designing for. For instance, if it's in Canada we use CSA/G40.21 steel which is the same steel that would be used to build a hospital or bridge.

Our buildings are designed by a professional, in-house engineering team and reviewed by external third party engineers that are also familiar with steel framed, fabric covered building design. Norseman's designs are tested using 'real life' scenarios. We regularly test entire truss sections in order to verify their strength using actual loads to ensure every product we manufacture will meet all requirements for your site.

GALVANIZING PROCESSES

Based on steel requirements and manufacturing techniques for individual product lines, Norseman Structures uses two different galvanizing processes; Hot-Dipped Galvanizing and In-Line Galvanizing.

Hot-Dipped Galvanizing

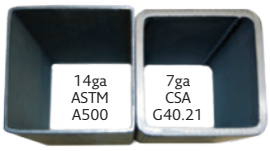
Norseman Structures' hot-dipped galvanized steel components are manufactured from black steel, fabricated into building trusses. The trusses are dipped in a series of acid baths to remove flux, dirt, oils and foreign materials before being dipped into hot molten zinc, coating the product inside and outside of the tubing. This galvanizing process creates a product highly resistant to corrosion and virtually maintenance free.

In-Line Galvanizing

Heavy-duty, in-line galvanized steel is triple coated, starting with a thick layer of protective molten zinc. A conversion coating bath provides another layer of corrosion protection, followed by a clear organic coating to seal the steel surface and provide a smooth finish. The interior of the steel tube is then painted with zinc enriched paint.

All welds are cleaned and roughened with an abrasive shot blasting process using cast steel shot and grit abrasives. The cleaned welds are then re-metalized with a process called Zinc Thermal Spray. Zinc metal wire is fed at a controlled rate into a hot flame and atomized zinc metal impinges upon the metal surface and becomes bonded to it. This provides a layer of cathodic protection that has been proven to provide superior corrosion protection to that of the original in-line galvanized coating. Overall, the in-line galvanizing process provides a finished product with exceptional mechanical and corrosion resistant properties.

BUILDINGS DESIGNED TO MEET REGULATORY STANDARDS*



Norseman Structures products are designed to meet regulatory standards, following yield strengths specified by the American Society of Testing and Materials (ASTM), instead of steel strengths advertised by suppliers.

* Steel product meets ASTM A500 or CSA/G40.21 standards.

STEEL MANUFACTURING CERTIFICATIONS

Norseman Structures is proud to have achieved the CWB (Canadian Welding Bureau), AWS (American Welding Society) and CSA A660 (Steel Building System Manufacturer) certifications which includes the fabric design/test requirements of S367. These certifications ensure our manufacturing plant processes meet established quality standards.

SUPERIOR MANUFACTURING METHODS

Superior steel framework manufacturing methods include precise, laser cut components and advanced welding techniques to ensure a high quality framework. We use a 3D Tube Laser cutting machine that excels at fabricating steel for our building framework with extremely precise cutting that meet our design and engineering group requirements.

NORSEMAN™ STRUCTURES
Fiercely Reliable™

1.855.385.2782 **norsemanstructures.com**

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