

Lightweighting. Increase Payload and Durability.





GENERAL RULE OF THUMB If you double the strength of the material, you can reduce the weight of the part by 1/3

Since the introduction of HSLA grades decades ago, steel manufacturers have continued to develop higher tensile strength materials while improving upon formability. Today, these high-strength steel grades are offering benefits to a wide range of industries and applications – from aerospace, automotive, and agriculture to mining equipment, truck trailers, cranes, boom arms, and more.

One of the most important factors is that high-strength steels are stronger than traditional steels, but do not have to weigh as much because higher strength means reducing steel thickness, without sacrificing structural integrity. This can enable payload and lifting capacity, and the overall structure of the vehicle to be

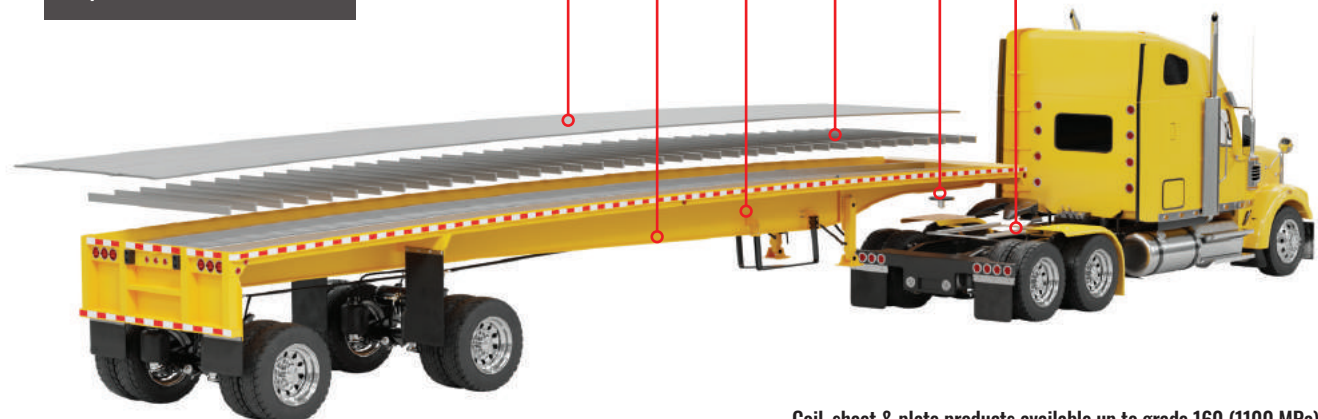
lighter, facilitating increased maneuverability and reduced fuel consumption. Lightweight steels are also generally more durable than traditional steels. This means that they can withstand more wear and tear lasting longer over time.

Why work with Steel Warehouse?

- Inventory management with JIT delivery
- Design engineering and customer technical services provided by in-house metallurgists
- 75+ year history of outstanding customer service
- Processing of 1.8 million tons annually
- Strategic locations

Grade 100 Steel

Ympress or Grade 100 Steel



Coil, sheet & plate products available up to grade 160 (1100 MPa)



Steel Warehouse offers a number of high-performing steel grades that can help you achieve your lightweighting goals.

Benefits of Lightweighting with Steel

- Increased Payload/Lift Capacity
 - Lighter structures expand capacity for more space, more weight handling, more productivity
- Improved Fuel Efficiency
 - Reduce weight without sacrificing strength
 - A 10% reduction in vehicle weight can improve fuel economy by 6%-8%
- Reduced Carbon Footprint
 - Lightweighting helps reduce carbon emissions
 - As compared to steel, producing aluminum requires 7x the energy and CFRP requires even more
- Better Performance
 - Lighter components relieve stress to extend product life
 - Lighter parts mean the ability to ship more parts per truck
- Operational Ease
 - High Strength Steels – unlike aluminum or carbon fiber - are compatible with traditional steel welding, forming, and cutting manufacturing processes





Steel Warehouse is a steel solutions partner focused on improving customer operations through our combination of metallurgical knowledge, product breadth, processing capability and inventory management. We have a 75+ years heritage of providing production-ready steel to metal stampers, fabricators and manufacturers that lowers overall cost through productivity, yield, product design and flexible terms.

Locations

Osceola, Arkansas
Calvert, Alabama
Rock Island, Illinois
South Bend, Indiana
Portage, Indiana
Cleveland, Ohio
Memphis, Tennessee
Chattanooga, Tennessee
Houston, Texas
Oak Creek, Wisconsin

International

Paulinia, Brazil
Monterrey, Mexico

Specialty Steel

Siegal Steel Chicago, Illinois
Chesterfield Steel Cleveland, Ohio



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