

# Fight Gravity with Strenx<sup>®</sup>

Rise above the competition with a  
new approach to steel design.





A dramatic, blue-toned industrial scene. In the upper right, a robotic arm with "GROVE" written on it reaches down. A human hand reaches up from the right, almost touching the robot. In the lower left, a semi-trailer is visible, and in the lower right, there are industrial rollers or machinery. The overall atmosphere is futuristic and high-tech.

Are you ready  
for sky-high  
performance?





## What if strong was light, and light was strong?

With Strenx<sup>®</sup>, high strength and low weight is no longer an impossible combination.

With Strenx<sup>®</sup>, vehicles and equipment can be both lighter and stronger, and still deliver better performance. It has extremely consistent properties, ensuring precision and efficiency in the workshop. The high yield and tensile strength, bending performance, and impact toughness allow you to innovate and develop your application designs further. Create value for your customers and maximize your business potential. Rise above the competition with a smarter approach to steel design. Discover new opportunities – made from Strenx<sup>®</sup>.

# A new approach to steel design

- ✓ Stronger yet lighter applications
- ✓ Boost profit. Cut costs
- ✓ Consistent workshop properties,  
no unwanted surprises
- ✓ The world's widest range of  
high-strength structural steel
- ✓ Access to thought-leading  
expertise and support





# 40%

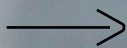
## lighter constructions

Depending on your starting point, you can cut significant weight from your structures with Strenx®. To name one of many examples, by using Strenx® 700, designers can cut on average 20% and sometimes up to 40% weight from steel structures – and still increase the fatigue life.

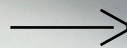


# Steel you can trust

**STRENX®**  
PERFORMANCE STEEL

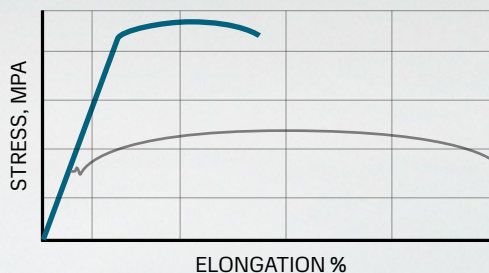


Mild steel



## Stronger and more resilient

Strenx® maintains its shape where mild steel bends. With high yield strength and controlled springback, it ensures lasting performance in demanding applications.







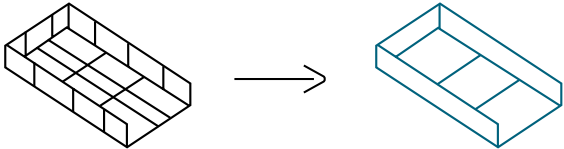
► Strenx® performance steel

To achieve a high-quality final product, you need to be able to trust your material. Predictability is the foundation for consistency, efficiency, and reliability in demanding applications.

Strenx® delivers predictable forming thanks to narrow strength and thickness tolerances, ensuring smooth processing. With consistent material properties and dimensional tolerances, every sheet and plate behaves as expected. The steel meets the highest quality standards, making it suitable even for the toughest requirements. Through clean steel production and precise process control, the material maintains uniform quality for accurate workshop performance.

### How Strenx® can improve your profitability

Strenx® high-strength steel can lower both material and production costs by enabling thinner designs and reducing the need for welds, cuts, bends, and parts. The example below shows the difference in a tipper body, maintaining the same strength and performance.



	Mild steel	Strenx®
Weld length	138 m	81 m
Cutting length	179 m	108 m
Bends	44	30
Parts	26 pcs	13 pcs
Weight	2484 kg	1510 kg
Weight reduction potential	-	Up to 40%



# From 600 to 1300\* MPa



If you thought all high-strength steel was the same, think again. Strenx® offers the widest range of high-strength structural steel on the market, covering yield strengths from 600 MPa to 1300 MPa.

With options for plates, sheets, tubes, and sections, Strenx® allows you to optimize performance in various applications. Whether you want to improve load capacity, reduce weight, or increase durability, there is a Strenx® grade tailored to the challenge. Every product is designed for consistency, reliability, and ease of processing in the workshop.

\*At the time of writing, open for extension.

## Strenx® hot rolled plate products

Name	Thickness range (mm)	Width up to (mm)
Strenx® 700	4-160	3350
Strenx® 900	4-120	3350
Strenx® 960	4-120	3350
Strenx® 1100	4-40	3200
Strenx® 1300	4-15	2900

## Strenx® hot rolled strip products

Name	Thickness range (mm)	Width up to (mm)
Strenx® 600	2-10	1600
Strenx® 650	2-10	1600
Strenx® 700	2-12	1600
Strenx® 900	2-10	1600
Strenx® 960	2-10	1600
Strenx® 1100	3-8	1700

## Strenx® tubes

Name	Thickness range (mm)	Width up to (mm)
Strenx® Tube 700	2.5-10	33.7 - 323.9 40x40 - 300x300 50x30 - 400x200
Strenx® Tube 900	4-6	139.7 - 219.1 100x100 - 200x200 120x80 - 250x150
Strenx® Tube 960	3-6	76.1 - 219.1 100x100 - 200x200 120x80 - 250x150

## Strenx® cold rolled products

Name	Thickness range (mm)	Width up to (mm)
Strenx® 700	0.7-2.1	1500
Strenx® 900	0.8-2.1	1500
Strenx® 1100	0.8-2.1	1500

Scan the QR code to visit our website for detailed product specifications.



[Visit website](#) 



# Superior qualities

Strenx® stands out with superior quality, making cutting and welding easier while ensuring high crack resistance. The enhanced fatigue properties contribute to longer-lasting structures, while efficient workshop processes help streamline production. With Strenx®, manufacturers gain reliability and performance in every step of the process.





## Easier to cut, weld and process

The high purity and tight tolerances of Strenx® allow the use of precise thermal cutting methods such as laser, plasma, and oxy-fuel without extensive post-processing. The low carbon content and optimized alloying minimize the risk of cracking and provide reliable weldability with conventional techniques like MAG, TIG, and arc welding.

## Resistant to cracks and wear

Whatever the challenge, Strenx® can take it. The exceptional purity reduces the risk of cracks and extends the lifespan of structural components. Consistent mechanical properties provide reliable performance under dynamic loads, while the optimized alloy composition enhances toughness and impact resistance. With tight thickness tolerances and high surface quality, Strenx® minimizes weak points that could lead to premature wear.

## Increased fatigue properties

Strenx® delivers in the long run. The refined microstructure minimizes internal defects and reduces stress concentrations that can lead to fatigue cracks. This translates to predictable forming and welding, as well as extended service life for your end products, reduced maintenance, and improved safety in demanding environments.

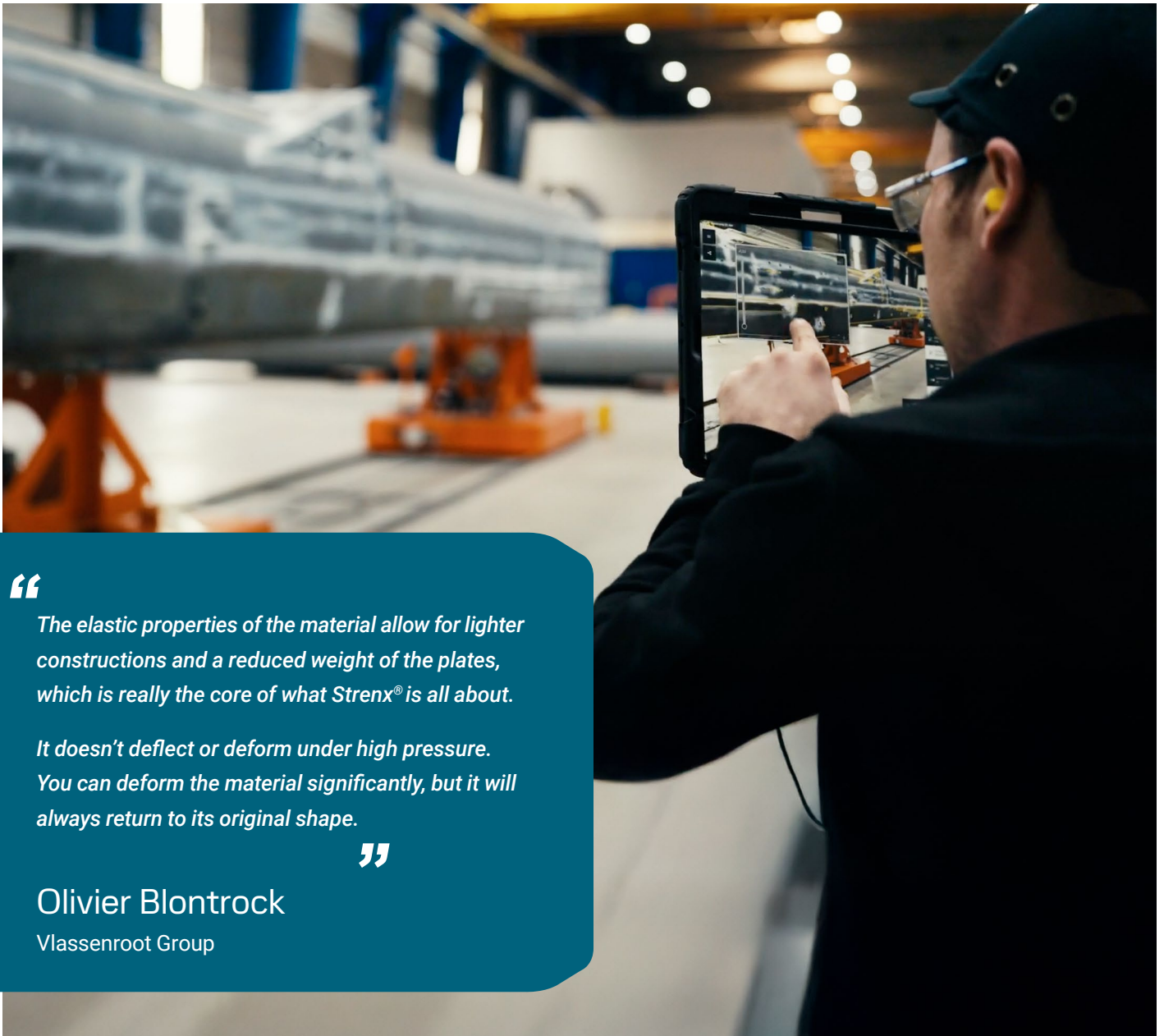


## Quality means safety

Strenx® high-strength structural steel enables industries like lifting, agriculture, and transportation to enhance their operational efficiency while maintaining the rigorous and ever-evolving safety standards required for personnel and equipment. For example, cranes can reach higher and extend further while remaining stable and secure. In transportation, trailers can carry heavier loads with improved structural stability. Meanwhile, in agriculture, stronger yet lighter machinery allows for increased productivity without compromising the safety of operators.

## Every step of the process

With extensive experience in high-strength steel, SSAB provides the expertise needed to enhance both product performance and production safety. Whether you need guidance on designing stronger and lighter structures, optimizing manufacturing processes, or ensuring compliance with strict safety standards, SSAB's experts are ready to assist you.



“

*The elastic properties of the material allow for lighter constructions and a reduced weight of the plates, which is really the core of what Strenx® is all about.*

*It doesn't deflect or deform under high pressure. You can deform the material significantly, but it will always return to its original shape.*

”

**Olivier Blontrock**

Vlassenroot Group

# Lifetime reduction of CO<sub>2</sub> emissions



Stronger and lighter constructions bring significant sustainability benefits. By using high-strength structural steel, less material is needed, reducing resource consumption and environmental impact. Equipment built with Strenx® is not only more durable but also requires less maintenance, extending the service life and lowering total lifecycle costs.

Additionally, reduced weight improves fuel efficiency, leading to lower emissions and operational savings. These advantages also translate into higher resale value, as second-hand buyers seek equipment that remains reliable, efficient, and cost-effective over time.

Trailer calculation were upgraded from yield strength 310 MPa to Strenx® 700.

**500** kg  
load capacity increase

**25** tonne  
CO<sub>2</sub> savings over a lifetime

**8100** litre  
less fuel over equipment lifetime



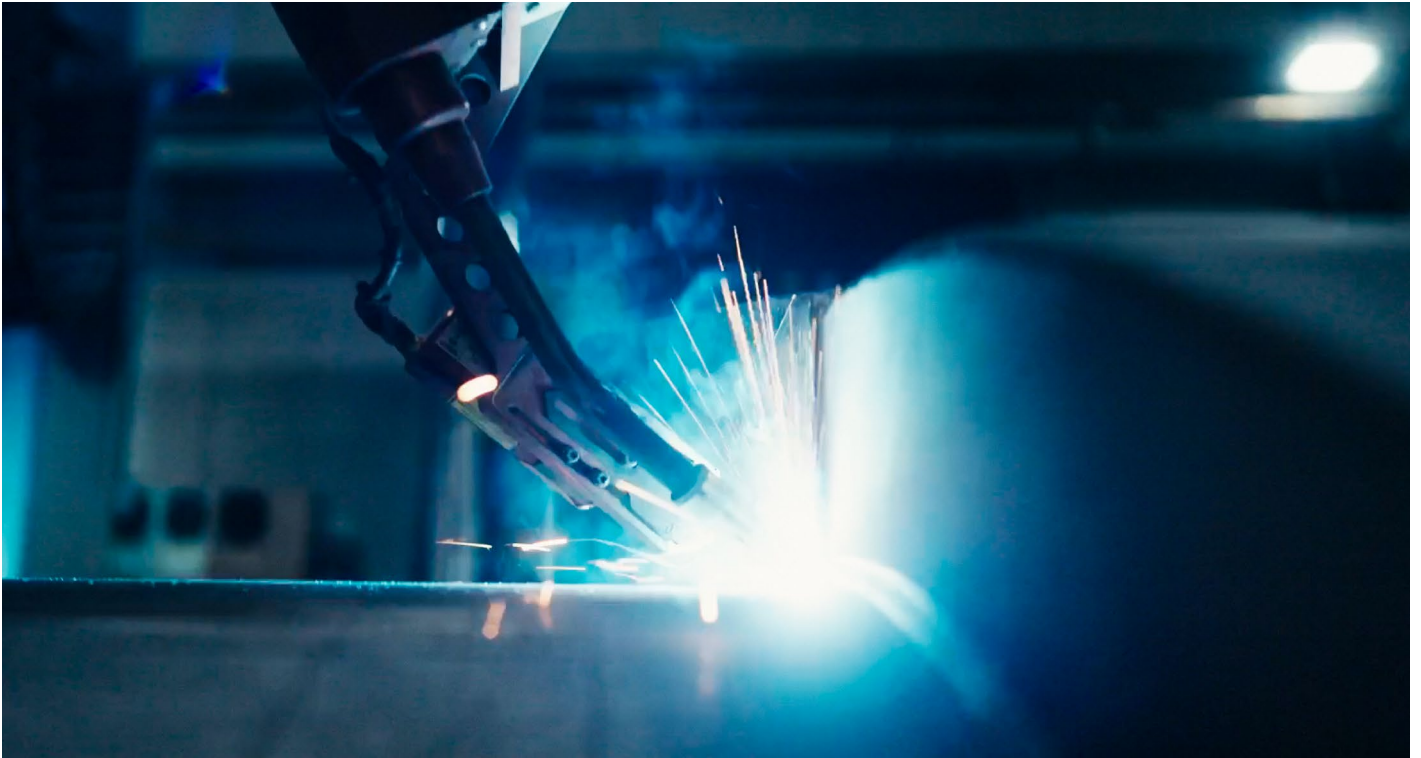
# Solutions tailored for your needs



Through our SSAB Steel Service Centers we offer a wide range of services for the development and prefabrication of high strength steel parts. Strenx® users across the world can gain a competitive edge through joint development projects. You have access to steel engineering experts, prototype manufacturing and supply of preprocessed parts delivered just-in-time to your production.



# Processing services



► Find your nearest SSAB Steel Service Center

[Visit website](#) 



Strenx® steel plate, strip and tubes can be processed in lengths over in excess of 20 meters and with bending forces of more than 4,000 tons. Using the high-end equipment at SSAB Steel Service Centers makes perfect business sense. You gain access to production capacity without investing in new machinery for in-house production and you are able to cut lead times. The machinery and technology provided meet practically every type of steel processing need:

- ✓ Laser cutting
- ✓ Plasma cutting
- ✓ Roll bending
- ✓ Laser welding
- ✓ Shear blanking
- ✓ Machining
- ✓ Oxy-fuel flame cutting
- ✓ Sawing
- ✓ Slitting
- ✓ Bending
- ✓ Roll forming



# Farming equipment that grows your profit

High capacity and low weight are common needs for all agriculture applications. A higher load capacity has a direct impact on the financial result. Low equipment weight minimizes soil compacting on crop fields. A strong and light harvester means less fuel, less wear and less hours worked to get the same result. Good news for the owner and good news for the driver.

- ✓ Sprayers
- ✓ Mobile cranes
- ✓ Agricultural trailers
- ✓ Plows
- ✓ Telehandlers





# Reach new heights

Strenx® can make lifting equipment more competitive through increased reach both upwards and outwards. Smart design utilizes the high yield strength of Strenx® to achieve greater performance without compromising on the high levels of personal safety required by lifting equipment. This can be done without making the complete unit too heavy for the roads on which it travels.

- ✓ Aerial work platforms (AWPs and MEWPs)
- ✓ Loader cranes
- ✓ Mobile cranes
- ✓ Forestry cranes
- ✓ Concrete pumps
- ✓ Lattice-boom cranes
- ✓ Tower cranes
- ✓ Telehandlers



# Trailer performance that goes the extra mile

The transport industry is constantly looking for ways to increase payload and improve fuel efficiency for every loaded ton, unit or passenger. Trucks, trailers, trains and buses need to become lighter without compromising on performance, safety and service life. Strenx® steel is the answer, delivering yield strengths of 600-1300 MPa, and improved workshop performance.

- ✓ Lowbed Trailers
- ✓ Flatbed Trailers
- ✓ Dump Trailers
- ✓ Curtain Sider Trailers
- ✓ Van Trailers
- ✓ Cement Bulk Trailers





# Forestry equipment that cuts your costs

Forestry equipment must withstand tough environments and challenging terrain while maintaining efficiency. A high load capacity enhances productivity and profitability, while a lightweight design minimizes impact on the forest floor. Durable and agile machines reduce fuel consumption, limit wear, and navigate the rough landscape with ease, ensuring reliable performance in demanding conditions.



# Offshore equipment that holds under pressure

Strenx® high-strength structural steel is ideal for offshore equipment, where maximizing performance in limited space is crucial. Its exceptional strength-to-weight ratio enables lighter yet stronger structures like offshore cranes, drilling rigs, and lifting equipment. By reducing weight while maintaining integrity, Strenx® optimizes load capacity, fuel efficiency, and service life, making it perfect for offshore environments where every kilogram and centimeter count.





# Welcome to the workshop

Strenx® equals peace of mind for manufacturers. It comes with multiple guarantees that reinforce the consistency and performance.

Through constant process improvements we are able to deliver Strenx® steel with a unique set of guarantees for thickness, flatness and bending properties. Strenx® guarantees are your safeguard for trouble-free production, day after day, year after year. And the material can be processed with the same kind of machinery and technology used for conventional steel.

SSAB is the world's most experienced producer of high-end quenched and tempered steels. Strenx® steel's extreme cleanness, lean alloy solution and high-quality manufacturing processes have great impact on toughness, fatigue strength and performance in sub-zero conditions.

Since Strenx® is stronger, it can be used in thinner dimensions to make lighter structures. It improves the final product, and it brings benefits along the way. Thinner material usually means less welding and faster production. Everyday handling in the workshop becomes lighter, and there is less steel to take up storage space.

When new design and innovative solutions require new and smarter production methods, you can always turn to SSAB Tech Support for guidance and recommendations. We are happy to provide you with expert advice on materials and processing when you are developing new and improved applications.



# Strenx<sup>®</sup> guarantees



## Thickness guarantee

The thickness tolerances are more narrow than those specified in the relevant EN standards for each product group.



## Flatness guarantee

Strenx<sup>®</sup> has five classes of flatness tolerances, depending on the type of product and material strength. All classes conform to or are more stringent than specified in EN 10 029. Class A and B also conform to or are stricter than specified in EN 10 051.




## Bending guarantee

The bending guarantee depends on the yield strength of the steel grade, and always conforms to or is more stringent than the requirements in the relevant EN standard for each product.

Scan the QR code and discover detailed information about the Strenx<sup>®</sup> Guarantee.



[Visit website](#) 



# Welding

Strenx® can be welded using any conventional welding method. MAG welding is the most common technique today, since it is very easy to automate for high productivity. Other suitable methods are MMA welding, TIG welding, plasma welding, submerged arc welding and laser welding.

Detailed welding instructions can be found at [strenx.com](https://strenx.com)

[Visit website](#) 



# Bending

Free bending and roll bending of Strenx® steel plate and strip can be done using standard bending machinery. Uniform properties, narrow thickness tolerances and high surface quality ensure a predictable bending process.

Detailed bending instructions can be found at [strenx.com](https://strenx.com)

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# Thermal cutting

The fine surface finish of Strenx® plate and strip makes it perfect for laser cutting without any additional surface preparation. Thermal cutting of hot-rolled Strenx® steel sheet and plate can be done with oxy-fuel flame, plasma and laser.

Detailed thermal cutting instructions can be found at [strenx.com](https://strenx.com)



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# Mechanical cutting and machining

Mechanical cutting of Strenx® is best done with guillotine shears. For optimal results, adjust the machine's clearance, cutting angle, and blade hardness. Before cutting, the plate should be warmed to around +20°C. Strenx® can be machined with standard equipment using stable machines and high-speed steel or carbide tools.

Detailed mechanical cutting and machining instructions can be found at [strenx.com](https://strenx.com)



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# Just-in-time and just right

Strenx® is delivered via an established and reliable supply chain, assisted by advanced logistics systems that ensure you receive the material at the right place, at the right time and in the right condition.

The most common grades and dimensions of Strenx® can be delivered to you within 48 hours, directly from the mill or from local stock.

SSAB logistics can be adapted to suit your production, depending on production volumes and location. Delivery solutions include supply and inventory management, JIT and VMI (Vendor Managed Inventory).

Strenx® is produced according to strict quality specifications. Each plate, sheet, coil and tube is marked and can be traced back to production for quality assurance.



## Testing and documentation



Extensive mechanical and ultrasonic testing is performed before delivery to ensure the material meets the specifications. Each delivery is fully documented through SSAB's certificate system that produces, distributes and records all types of inspection documents electronically. The certification system enables inspection documents to be handled quickly and easily.

## Quality management



The quality management system at SSAB is based on EN ISO 9001:2000 and is described in our "Operational Manual for Quality and Environment". An accredited inspection body certifies the system, and it is also certified in accordance with AQAP 2110:2. SSAB products conform to the requirements for CE marking according to the provisions of the EU Construction Products Directive (89/106/EEC).

## Priming, packing and marking



Strenx® steel products are available with a wide range of priming, packing and marking options, such as anti corrosion shop primer, durable plastic wrapping, edge protection, self-adhesive product labeling and non-perishable marking for product identification.



# Meet the gravity fighters

A close-up, low-angle shot of a man with a beard and short dark hair, looking upwards and to the right. He is wearing a bright yellow high-visibility safety vest over a dark t-shirt. The background is a blurred industrial setting with structural beams.

My Inner Strenx® is an exclusive program for manufacturers who use Strenx® steel to create superior products. Members of the program must meet strict quality requirements and can display the My Inner Strenx® sign on their products, demonstrating their commitment to excellence, strength, and efficiency.

Strenx® Certified Fabricators is a certification for workshops and fabricators that have been verified to meet high standards in processing Strenx® steel. These certified partners have proven expertise in welding, cutting, and forming Strenx®, ensuring high-quality, durable, and optimized steel structures.



# My Inner Strenx®



## ► A sign of excellent performance

When you spot the My Inner Strenx® sign on trailer chassis, cranes, aerial work platforms or any other equipment, you know it comes from a manufacturer who is committed to innovative design, state-of-the-art manufacturing and outstanding performance. Only products that are certified according to strict specifications are allowed to carry this sign.

## Strenx® Certified Fabricators



## ► Bring out the full potential

Strenx® Certified Fabricators know how to process Strenx® high-strength steel for your high-performing equipment in transport, lifting, agriculture and other advanced load-bearing applications. They're your trusted partner in manufacturing, delivering the right Strenx® steel parts when you need them.



SSAB is a Nordic and US-based steel company. SSAB offers value added products and services developed in close cooperation with its customers to create a stronger, lighter and more sustainable world. SSAB has employees in over 50 countries. SSAB has production facilities in Sweden, Finland and the US. SSAB is listed on Nasdaq Stockholm and has a secondary listing on Nasdaq Helsinki.

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