



# SPECIALISTS IN TUBES AND SECTIONS

**SSAB**



# A STRONGER, LIGHTER AND MORE SUSTAINABLE WORLD

SSAB is a highly specialized global steel company and leading producer of high-quality structural hollow sections, precision tubes, wear-resistant tubes and open sections. Production expertise in high-strength steels and the manufacture of tubes and sections, combined with value-added services and customization capabilities, make SSAB stand out from other producers.

We offer our customers a broad product portfolio of tubular products that satisfies a range of applications in many industries. You will find SSAB's tubes and sections throughout a variety of industries, including construction, lifting and handling, heavy transportation, automotive, railway, agriculture and light engineering.

The yield strength classes of our structural hollow sections reach 960 MPa, and our precision tube range goes up to 1200 MPa. Tubular products are also available for many specific needs such as weather resistance and wear applications.

SSAB's tubes and sections are manufactured using our own steel, enabling us to consistently deliver excellent batch-to-batch consistency, homogeneous mechanical properties and the lowest carbon footprint. We take full control and responsibility, from steel production and rolling through to roll forming and welding to tube. This enables us to design steel properties and compositions for tube and section manufacturing and end-user needs, provide for countless tailoring possibilities in both tube and steels mills, and control quality throughout the production chain.

At SSAB, we take pride in providing high availability, short delivery times, extensive logistics services and a flexible responsiveness to customers. Our service offering also includes technical, development and workshop support, training and other related services.

## BENEFITS OF ALL SSAB TUBES AND SECTIONS

- ▶ Batch-to-batch consistency.
- ▶ The lowest carbon footprint.
- ▶ Full control from steel production to roll forming and welding to shape.
- ▶ Countless tailoring possibilities in both steel and shape.
- ▶ Exceptional technical support.



# STRUCTURAL HOLLOW SECTIONS

SSAB produces cold-formed welded and hot-finished welded structural hollow sections for multiple purposes. Whether you are building, lifting or moving equipment or designing buildings, you can always find a product that best fits your needs. With SSAB's structural hollow sections, you can significantly reduce the weight of your steel structures while gaining savings in material and manufacturing costs – without limiting the freedom of design.



## **SSAB DOMEX TUBES**

The product family of SSAB Domex® Tubes offers versatile, high-strength hollow sections with numerous tailoring possibilities and benefits. The tubing meets or exceeds the requirements of EN 10219 and is available in steel grades S355/S420 (Double Grade) to S550.

Double Grade hollow sections are especially designed for steel construction according to EC3 and EN 1090. They have an improved buckling curve, thickness tolerance and impact toughness guarantee.

SSAB Domex Tubes come in circular, square, rectangular and custom shapes.



## **STRENX TUBES**

Strenx™ performance steel is the most advanced high-strength structural steel in the world. The naturally stiff tubular shapes help you get the most out of its strength. Strenx Tubes are available in steel grades S700 up to S960. Typical applications for Strenx Tubes include lifting equipment, material handling, frame structures, lattice structures as well as trusses and columns. The tubes are easily weldable and come in various shapes and sizes, including custom shapes.



## **HARDOX TUBES**

Hardox® Tube 400 and 500, as hard and tough as our wear plate, offer outstanding performance when you want a combination of high wear resistance, extended service life and a lighter product. Typical applications include concrete pumping, pumping industrial abrasives, dredging and handling mining slurries.



## **SSAB WEATHERING TUBES**

The SSAB Weathering Tubes family is ideal for advanced engineering and construction under tough atmospheric conditions. Using SSAB Weathering Tubes minimizes the need for maintenance and corrosion-prevention treatments. This tubing is available in steel grades S355 and S500. The dimensional range is the same as SSAB Domex Tubes, and precision tubes are available upon request.

### KEY BENEFITS OF SSAB DOMEX TUBE DOUBLE GRADE

- ▶ CE marked.
- ▶ Improved buckling resistance, curve b.
- ▶ Welding to cold formed corner is always allowed.
- ▶ Enhanced impact toughness (-40°).
- ▶ Low alloying for excellent weldability and low saw-blade wear.
- ▶ Narrower tolerances for wall thickness.

### KEY BENEFITS OF SSAB STRENX TUBE

- ▶ The most advance high-strength structural steel.
- ▶ Up to 40 percent reduction in weight of structure compare to S355.
- ▶ Low alloying for excellent weldability.
- ▶ Strenx Tube 700 CE marked.
- ▶ Customized cross sections are available.
- ▶ Large sample stock for prototyping.

### KEY BENEFITS OF SSAB HARDOX TUBE

- ▶ Extraordinary combination of hardness and toughness.
- ▶ Replaces costly wear products like hard-faced overlay pipes.
- ▶ Up to six times longer service life than mild steel pipes.
- ▶ Good weldability and machinability despite its hardness.
- ▶ Easy installation and maintenance.



### DIMENSIONAL RANGE – SSAB DOMEX TUBES / SSAB WEATHERING TUBES

| Shape       | External dimensions (mm) | Wall thickness (mm) |
|-------------|--------------------------|---------------------|
| Circular    | 26.9–323.9               | 2.0–12.50           |
| Square      | 25x25–300x300            | 2.0–12.50           |
| Rectangular | 40x20–400x200            | 2.0–12.50           |

### DIMENSIONAL RANGE – STRENX TUBES

| Shape       | External dimensions (mm) | Wall thickness (mm) |
|-------------|--------------------------|---------------------|
| Circular    | 33.7–323.9               | 3.0–10.0            |
| Square      | 30x30–300x300            | 3.0–10.0            |
| Rectangular | 50x30–400x200            | 3.0–10.0            |

### DIMENSIONAL RANGE – HARDOX TUBES

| Shape                     | External dimensions (mm) | Wall thickness (mm) |
|---------------------------|--------------------------|---------------------|
| Circular, Hardox 400 Tube | 76.1–219.1               | 3.0–6.0             |
| Circular, Hardox 500 Tube | 76.1–133                 | 2.0–6.0             |

# PRECISION TUBES

Whether you're looking for weight savings, corrosion resistance, narrow tolerances or low processing costs, SSAB provides a wide range of precision steel tubes to fit your needs. We promise you the market's most versatile precision tubes to make your products exceed your customers' expectations.

The strength of our precision tubing ranges from 190 up to 1200 MPa. This range enables you to find the best steel grade and type for your purposes. You can select extremely formable, high-strength formable or an ultra-high-strength option for your application.

Our precision tubing provides the most effective, environmentally friendly and economical way of protecting steel against corrosion. You can select from various coating options for

many different conditions and processes. The required coating life in different conditions can be achieved by selecting the proper zinc-coating thickness from our range 100–600 g/m<sup>2</sup>. In special applications requiring superior paint adhesion and good weldability with excellent corrosion resistance, our galvanized tubing makes the best choice. And for applications that demand superior corrosion resistance in marine conditions, galvanized tubes offer the best choice.



## KEY BENEFITS OF SSAB FORM TUBES

- ▶ 30 % higher guaranteed elongation (A%) values on average for clearly better formability and cost-effective workshop manufacturing.
- ▶ Narrower tolerances in weld bead height and cut-to-length tubes.
- ▶ Lower alloying for excellent weldability, formable heat effect zone and low saw-blade wear.
- ▶ Metal coating possibilities for excellent corrosion protection in all conditions.
- ▶ Testing matching with delivered tubes.
- ▶ Endless varieties for customer tailoring in cross sections, coatings, tolerances and steel grades.





## SSAB FORM TUBES

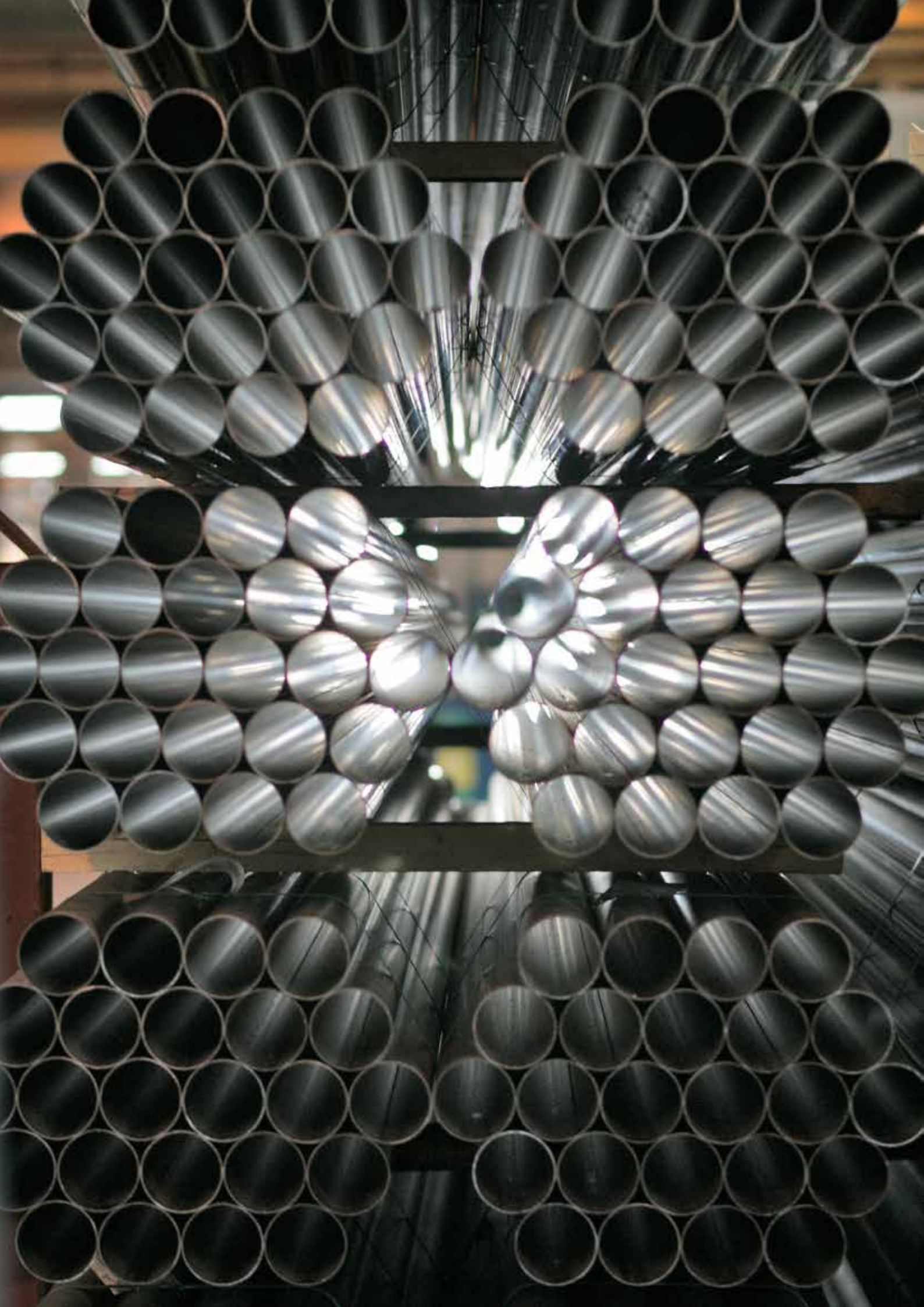
SSAB Form Tubes uniquely combine strength, formability, narrow tolerances and surface quality, and are supplied in endless varieties and material options for different applications.

The yield strength ranges from 190 MPa to 420 MPa. The tubes are made in compliance with standard EN 10305 (parts 3 and 5) and they provide elongation even above a more demanding (+CR2) elongation category. Our outstanding elongation properties help you lower manufacturing costs and reach new limits in the forming processes. In addition, our exacting chemical composition significantly improves weldability and cutting. SSAB Form Tubes come in circular, square, rectangular, oval and custom shapes.

## DIMENSIONAL RANGE – SSAB FORM TUBES / SSAB BORON TUBES

| Shape       | External dimensions (mm) | Wall thickness (mm) |
|-------------|--------------------------|---------------------|
| Circular    | 15–133                   | 0.9–3.0             |
| Square      | 12.7x12.7–100x100        | 0.9–4.0             |
| Rectangular | 20x10–150x50             | 0.9–4.0             |
| Flat oval   | 25x15–78x38              | 0.9–3.0             |
| Oval        | 22x16.5–31x17.5          | 0.9–3.0             |







## KEY BENEFITS OF DOCOL TUBES

- ▶ The greatest high-strength range up to extraordinary 1200 MPa.
- ▶ Low alloying for excellent weldability.
- ▶ Metal coating possibilities for excellent corrosion protection in all conditions.
- ▶ Customer tailoring in cross sections, coatings, tolerances and steel grades.
- ▶ Large sample stock for prototyping.



### DOCOL TUBES

Docol® Tubes make the ideal choice for safety components and structural parts of a car body and chassis. But they've also got much to offer to anyone looking for high-end solutions. Docol Tubes uniquely combine high strength and different surface qualities with endless shape varieties.

SSAB's Docol Tubes offer the greatest strength range on the market. The tensile strength range starts at 500 MPa and goes up to an extraordinary 1200 MPa without any need for post-heat treatments. With coating options including zinc, galfan and galvanealed, corrosion resistance and superior paint adhesion can be combined for the first time in high-strength precision tubing.

Docol Tubes come in circular, square, rectangular and custom shapes.



### SSAB BORON TUBES

SSAB Boron Tubes uniquely combine ultra-high strength as quenched, formability as delivered, narrow tolerances and wear resistance in a wide variety of shapes and sizes. Their outstanding properties will help you lower manufacturing costs and reach new limits in processes that require formability, uttermost strength and wear resistance. The dimensional range is the same as for SSAB Form Tubes. Also available as hollow sections upon request.

### DIMENSIONAL RANGE – DOCOL TUBES

| Shape       | External dimensions (mm) | Wall thickness (mm) |
|-------------|--------------------------|---------------------|
| Circular    | 15–133                   | 1.0–2.0             |
| Square      | 12.7x12.7–100x100        | 1.0–2.0             |
| Rectangular | 20x10–150x50             | 1.0–2.0             |

# COLD-FORMED OPEN SECTIONS

SSAB's comprehensive range of cold-formed open steel sections features a wealth of options for steel grades (up to S900) as well as shapes. A steel grade and shape exactly matching the application provide significant weight and cost savings. Each unit of weight saved will offer direct benefits in transportation and in the lighter weight of structures. Our cold-formed open sections are made in accordance with EN 10162.



## STRENX SECTIONS

Strenx™ Sections are one of the most advanced high-strength, high-performance steel profiles in the world. Strenx Sections are available in steel grades S650, S700 and S900. Typical applications for Strenx Sections include demanding load-bearing structures often used in the lifting, handling and transportation sectors. The sections feature good weldability, including corner region, and are suitable for thermal cutting and can be sawed and machined with regular tools. Strenx Sections are available as U-section. Other shapes and variations are available upon request.

## DIMENSIONAL RANGE – STRENX SECTIONS

| U-shape             | Strenx Section 650 & 700 | Strenx Section 900 |
|---------------------|--------------------------|--------------------|
| Bottom length (mm)  | 50 – 400                 | 200 – 400          |
| Side length (mm)    | 30 – 200                 | 50 – 150           |
| Wall thickness (mm) | 2.5 – 10                 | 3 – 6              |





#### **TAILORED SECTIONS**

SSAB helps you discover and create completely new products or improve existing ones. In addition to standard section shapes, we can deliver steel section made to customer specifications using the best materials for the application. Tailoring the section properties to your needs can sharpen your end product's competitive edge and boost your production efficiency.

The choice of steel section grades and shapes is endless. We can produce thousands of different shapes from a large variety of steel grades. Sections can be delivered as punched, laser cut, sand blasted, painted, hot-dip galvanized or zinc coated.

Thanks to our in-house expertise in high-quality steels combined with roll-forming experience, SSAB can provide the best possible solutions for your needs.

#### **MORE INFORMATION ...**

about hollow sections, open sections and precision tubes,  
visit [ssab.com](http://ssab.com)

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 the Nasdaq OMX Nordic Exchange in Stockholm and has a secondary listing on the Nasdaq OMX in Helsinki. [www.ssab.com](http://www.ssab.com)

SSAB  
P.O. Box 70  
SE-101 21 Stockholm  
Sweden  
T +46 8 45 45 700  
[contact@ssab.com](mailto:contact@ssab.com)

[www.ssab.com](http://www.ssab.com)

**SSAB**