Strenx Section 900

General Product Description

Strenx™ Section 900 is a cold-formed steel section made of hot-rolled, high-strength steel with a minimum yield strength of 900 MPa.

Its high-strength combined with naturally stiff form enables construction of stronger and lighter structures. Typical applications include demanding load-bearing structures in the lifting, handling and transportation segments.

The steel in Strenx Section 900 meets or exceeds the requirements of EN 10149-2. Its tolerances meet or exceed, when applicable, the requirements of EN 10162.

Strenx Section 900 is available as U-section. Other shapes and variations are available upon request.

The maximum length of the sections is 21 meters, cut-to-length sections are available upon request.

Dimension Range

Strenx Section 900 is available as U-section. Other shapes and variations are available upon request.

Bottom length	200- 400 mm
Side length	50- 150mm
Wall thickness	3.0- 6.0 mm
Max. length	21 000 mm

Dimensions

Product Type	Bottom Length (mm)	Side Length (mm)	Wall thickness (mm)
U-Section	200- 400	50- 150	3- 6

Corner Radius	3 - 6 Thickness mm
Minimum inner corner radius for a 90° corner	3.0xt

Mechanical Properties

Wall thickness (mm)	Yield strength R_{eH} 1)2) (min MPa)	Tensile strength R_m (MPa)	Elongation A_5 (min %)	Minimum inner corner radius for a 90° corner
3- 6	900	930- 1200	8	3.0xt

The mechanical properties are tested in the longitudinal direction.
1) If ReH is not applicable then Rp 0,2 is used.
2) For both longitudinal and transverse direction.

Impact Properties

Test temperature	Minimum energy for test on longitunal Charpy V 10x10 mm test speciments (J)
-40 °C	27 J

Impact testing according to EN ISO 148-1 is performed on thicknesses ≥ 6mm. The specified minimum value corresponds to a full-size specimen.

Chemical Composition (ladle analysis)

C (max %)	Si1) (max %)	Mn (max %)	P (max %)	S (max %)	Al_{tot} (min %)	Nb2) (max %)	V2) (max %)	Ti2) (max %)
0.12	0.25	1.3	0.02	0.01	0.015	0.05	0.05	0.07

In addition, boron (B), molybdenum (Mo), nickel (Ni) or copper (Cu) may be used as alloying elements either singly or in combination.
Sum of Nb, V and Ti = max 0.22%
The steel is grain refined.

Carbon equivalent CET(CEV)

Wall thickness (mm)	2.5 - 10
Typical CET (CEV)	0.28 (0.51)

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40} \qquad CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

Tolerances

Tolerances according to EN 10162 when applicable. For Strenx Sections with material thickness over 8 mm SSAB guarantees same tolerances as given in EN 10162 for thickness range 6-8 mm.

Narrower tolerances are available upon request.

Delivery Conditions

The sections are roll formed from thermomechanically rolled steel.

Fabrication and Other Recommendations

Welding, bending and machining

Strenx Section 900 has good weldabililty and it is suitable for thermal cutting. All the common welding methods are suitable with matching or undermatching consumables.

Sections can also be sawed and machined with regular tools. Bending of the sections is also possible, please contact Tech Support for further instructions.

It is not recommended to hot dip galvanize Strenx Section 900.

For information concerning fabrication, see SSAB´s brochures on www.ssab.com or consult Tech Support, techsupport@ssab.com.

Appropriate health and safety precautions must be taken when bending, welding, cutting, grinding or otherwise working on the product.

Contact Information

www.ssab.com/contact