

EFFICIENT AND MORE SUSTAINABLE AGRICULTURE WITH STRENX® TUBES

Strenx® performance steel can make your products stronger, lighter, safer, more competitive and more sustainable. We call it performance steel, because it adds performance beyond ordinary structural steel.

LOWER WEIGHT IN SPRAY BOOMS LEADS TO MANY ADVANTAGES:

- wider booms = improved productivity measured as speed in the field, lengthening booms on each side can shorten spray time in the field up to 20%
- reduced risk of boom oscillating, better shock absorbing: allows faster speed in the field, improved spraying precision and reduced consumption of spray chemicals
- minimized crop damage and less soil compaction
- extended service life
- less fuel consumption



Strenx® Tube 700MLH

Strenx® Tube 700MLH is an HF-welded cold-formed structural hollow section made of hot-rolled high-strength steel with minimum yield strength of 700 MPa.

Its high strength combined with different shapes of welded hollow section enables construction of stronger and lighter structures.

When upgrading mild steel plate to Strenx® 700 steel a rule of thumb for new steel thickness is:

$$t_{HS} = t_{MS} \sqrt{\frac{Re_{MS}}{Re_{HS}}}$$

When upgrading, please contact SSAB technical support.

WHERE:

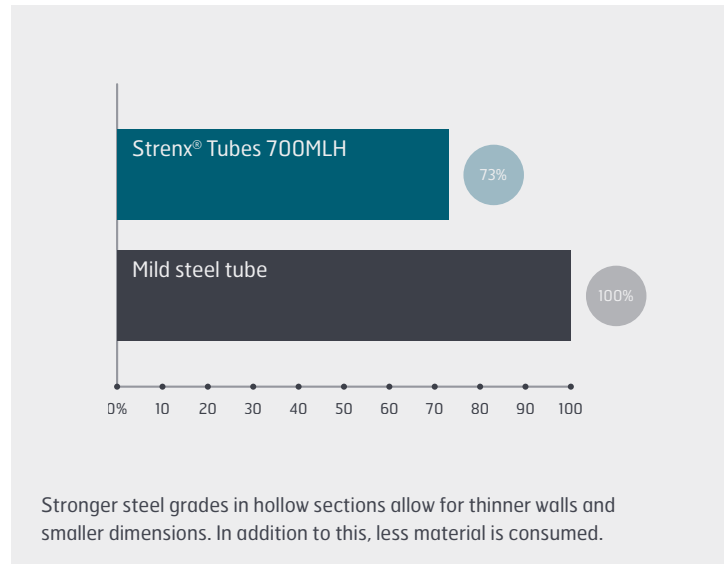
- t_{HS}** is the new thickness in High Strength Steel
- t_{MS}** is the old thickness in Mild Steel
- Re_{MS}** is the yield strength for Mild Steel
- Re_{HS}** is the yield strength for High Strength Steel

SOME SUITABLE TUBE DIMENSIONS FOR UPGRADING SPRAY BOOMS:

Circular, mm	42.4, 48.3, 60.3
Square, mm	40x40, 50x50, 60x60
Rectangular, mm	50x30, 60x40
Wall thickness, mm	2.0, 2.5, 3.0
Mill length, mm	6 000 – 12 000

Other sizes and lengths are available upon request.

For all available tube sizes contact your local SSAB salesperson or check Strenx® Tube 700MLH at: www.ssab.com

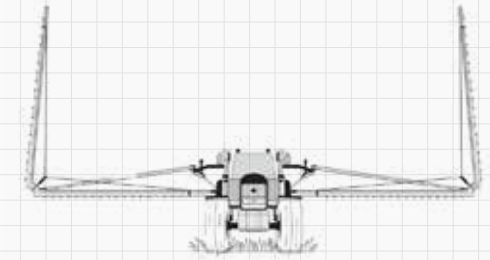


CASE SUMMARY:

A European manufacturer upgraded their sprayer booms from mild steel to Strenx® Tube 700MLH. The Strenx® Tube 700MLH allowed for a reduction in wall thickness, resulting in a total weight saving of 27%.

STRENX® TUBE 700MLH MECHANICAL PROPERTIES

Yield strength R _{p0.2} min [MPa]:	700
Elongation A ₅ min %:	10
CET/CEV, typical:	0.24/0.38
Impact toughness [J] at – 50 °C:	27



THE BENEFITS OF STRENX® TUBE 700MLH

- Higher specific strength than high grade aluminum
- Better weight efficiency
- Lower material costs than aluminum or carbon fiber
- Weldable with conventional welding methods, easier to repair than other materials
- Less environmental impact in whole lifecycle than aluminum
- Steel is 100% recyclable
- Tougher when it's needed most in low temperature
- Dimensional consistency from batch to batch
- Different cross-section profiles possible thanks to its adaptability and workability