



### **HARDOX TUBE 400**

# **General Product Description**

Abrasion-resistant tubes for extreme performance and extended service life Hardox® Tube 400, as hard and tough as our wear plates, offer outstanding performance when you need both high wear resistance and a lighter product.

#### **Available dimensions**

T: 3-6 mm

L: Up to 10000 mm

D: Circular 76- 219 mm

#### Circular

Circulai					
Diameter	[Missing]	[Missing]	[Missing]	[Missing]	
76.1 mm	Х				
88.9 mm	X	Χ			
101.6 mm		Х			
108 mm		X			
114.3 mm		Х			
127 mm		X			
133 mm		Х			
139 mm		Χ	Χ	Χ	
159 mm			Х	Х	
168.3 mm			Χ	Χ	
193.7 mm			Х	X	
219.1 mm				Х	



# **HARDOX TUBE 400**

# **Mechanical Properties**

Thickness (mm)	Hardness HBW <sup>1)</sup> (HBW)
3.0- 6.0	360- 440

<sup>1)</sup> Brinell hardness test, HBW, according to EN ISO 6506-1.

# **Chemical Composition**

Thickness	C	Si	Mn	P	S	Cr	Ni	Mo	B
(mm)	(max %)								
3.0-6.0	0.30	0.70	1.60	0.020	0.010	1.50	1.5	0.60	

The steel is grain refined.

#### **Tolerances**

Characteristic	Circular wear tube Tolerances based on the requirements of EN 10219
Outside diameter (D) 1)	±1%, with a minimum of ±0.5 mm and a maximum of ±10 mm
Out-of-roundness	2%, when D/T ≤ 100
Thickness (T)	$\pm 10\%$ when T $\leq$ 5 mm and $\pm 0.5$ mm when T $>$ 5 mm
Straightness	0.20% of total length and 3 mm over any 1 m length
Mass per unit length	Individual tube: ±6%
Standard length	≥ 6000 mm: 0/+50 mm
Exact length	Agreed at the time of enquiry and order

<sup>&</sup>lt;sup>1)</sup> All external dimensions are measured with a minimum distance from the end of the section. The distance must be a minimum of 100 mm.

## **Delivery Conditions**

The delivery condition is Q (Quenched).

The Hardox Tube 400 is delivered in as-rolled condition lightly oiled.

Delivery requirements can be found in SSAB's brochure 41-General product information Strenx, Hardox, Armox and Toolox-UK or at www.ssab.com.

#### Fabrication and Other Recommendations

Recommendations can be found in SSAB's brochures at www.hardox.com or consult Tech Support, techsupport@ssab.com. Hardox Tube 400 has obtained its mechanical properties by quenching and after roll forming and plasma welding. The properties of the delivery condition cannot be retained after exposure to service or preheating temperatures in excess of 250°C. Hardox Tube 500 is not intended for further heat treatment.

Appropriate health and safety precautions must be taken when welding, cutting, grinding or otherwise working on this product. Grinding, especially of primer coated plates, may produce dust with a high particle concentration.



# HARDOX TUBE 400



The UK English version of this document shall prevail in case of discrepancy. Download the latest version of this document at www.ssab.com Hardox, Strenx, Docol, Dogal, Domex, Toolox, Laser, Armox, Ramor, GreenCoat are trademarks of SSAB Technology AB, Sweden

