

**DATASHEET METRIC**

Energy industry

Structural solutions for energy applications

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# About Stalatube

Stalatube is a manufacturer of highly developed stainless steel hollow sections, profiles and components. We are known worldwide as the leading provider of stainless steel solutions. With a global presence, in-depth material expertise and the world's widest product portfolio in stainless square and rectangular hollow sections, we help customers connect the most suitable product with their application or project - in even the most complex of cases. Our customizable, environmentally conscious solutions are here to build a better future. We believe that by working with customers and investing in R&D, anything is possible.

For over 50 years of pioneer work in the industry, we have built an international distribution network covering all continents and over 50 countries. Our head office and main production facility is in Finland, sales offices are in the USA and Netherlands, a R&D office in Türkiye, and a production facility for further processed products in Poland. To assist you in being the best, we provide world-class stainless steel know-how, cutting-edge technology and a full range of professional services.

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### The leading supplier of stainless structural products

Our Duplex hollow sections and profiles are widely used in oil rig topsides and at gas processing plants. Applications include pipe support systems and pipe racks for process piping, skids for equipment and machinery, bridges and walkways, stairway towers and handrails.

#### USE OUR STRENGTH!

## Services

### Technical consultation

Our experienced staff have extensive know-how on all matters concerning stainless steel. If you have any doubts or questions about stainless steel materials, processing or welding, we are always willing to assist. Do not hesitate to contact us!

### Testing and certification

Get precise documentation, certifications, test reports or other statements for needed purpose. The traceability of our products is always accurate.



# Hollow sections



## Lean Duplex EN 1.4362 (PRE min. 28)

### Delivery condition

Cold formed, welded and pickled

### Bundle packing

Bundles are tied with plastic straps and wrapped in plastic foil

### Tube marking

Bundles are tied with plastic straps and wrapped in plastic foil

### Technical specifications

Raw material according to MDS - D35

Hollow sections according to MDS - YD37

## Mechanical properties

### Roll formed hollow sections

Grade	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
EN 1.4362	500	690	25

### Press brake hollow sections and welded I-beams

Grade	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
EN 1.4362	420	630	25

## Standard product range

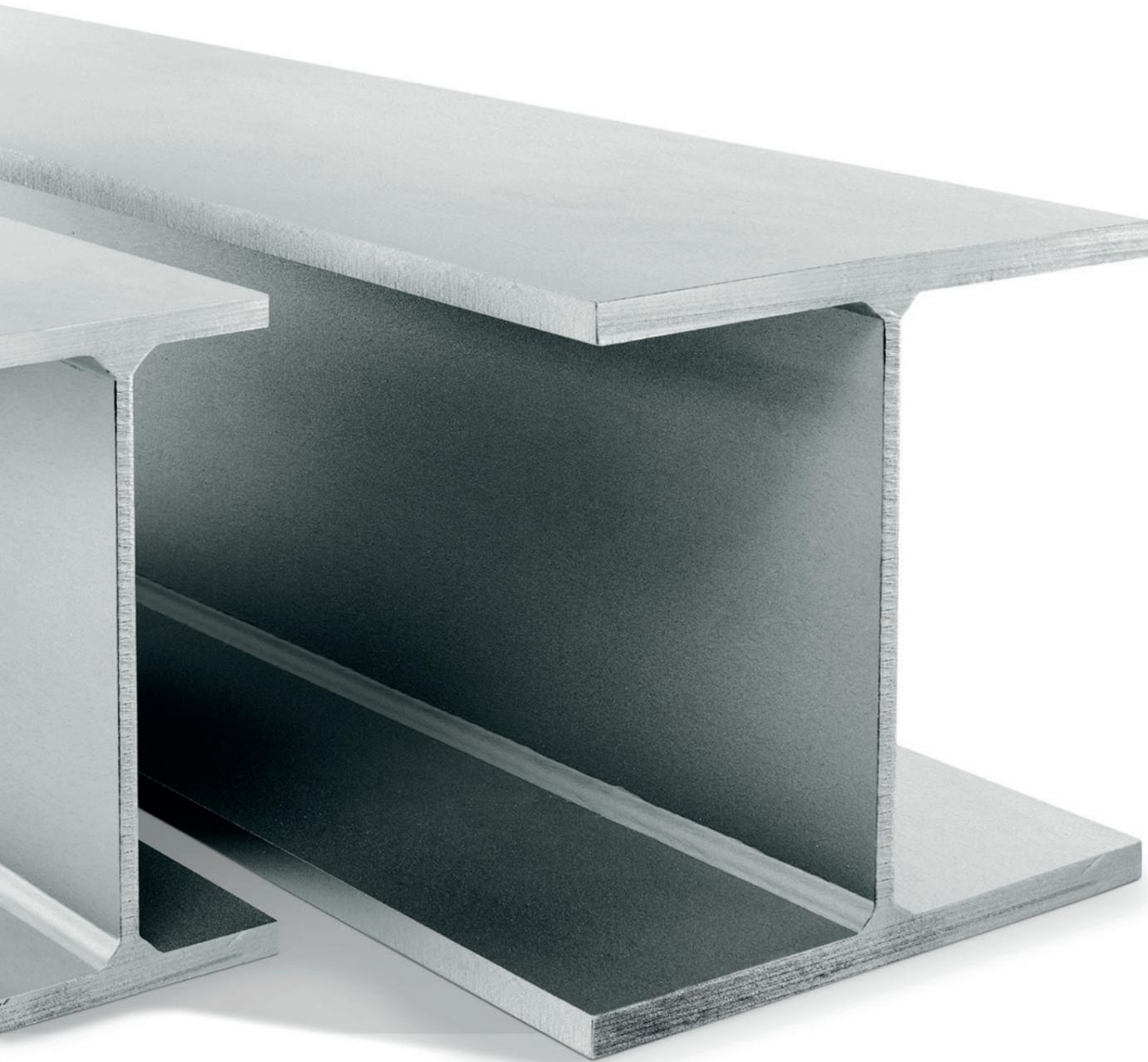
[mm] *
50 x 50 x 4
60 x 60 x 4
80 x 80 x 5
100 x 100 x 6
100 x 100 x 8
120 x 80 x 5
120 x 120 x 6
150 x 100 x 6
150 x 150 x 6
150 x 150 x 8
200 x 100 x 6
200 x 200 x 8
250 x 250 x 8

1) EDX2304

\* A80 when  $T < 3$  mm, A5 when  $T \geq 3$  mm

\*) Special dimensions by request

# Stainless welded I-beams



## Chemical composition EN 10088-2 and EN 10088-4

(% by mass, maximum values unless indicated otherwise)

Austenitic											
EN	C	Si	Mn	P	S	N	Cr	Mo	Ni	Others	PRE
1.4301	0.070	1.00	2.00	0.045	0.015	0.10	17.5-19.5		8.0-10.5		18
1.4307	0.030	1.00	2.00	0.045	0.015	0.10	17.5-19.5		8.0-10.5		18
1.4404	0.030	1.00	2.00	0.045	0.015	0.10	16.5-18.5	2.00-2.50	10.0-13.0		24
Lean Duplex and duplex											
EN	C	Si	Mn	P	S	N	Cr	Mo	Ni	Others	PRE
1.4162	0.040	1.00	4.0-6.0	0.040	0.015	0.20-0.25	21.0-22.0	0.10-0.80	1.35-1.70	Cu 0.10-0.80	26
1.4362	0.030	1.00	2.00	0.035	0.015	0.05-0.20	22.0-24.0	0.10-0.60	3.5-5.5	Cu 0.10-0.60	28
1.4462	0.030	1.00	2.00	0.035	0.015	0.10-0.22	21.0-23.0	2.50-3.50	4.5-6.5		35

## Mechanical properties EN 10088-2 and EN 10088-4

Measured from coil or plate, minimum values unless indicated otherwise

Austenitic				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %	
1.4404	220	520-680	40	
Lean Duplex and duplex				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %	
1.4362	420	630	25	1)
1.4462	460	640-950	25	

# Stainless welded I-beams

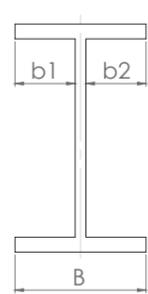
EN 1.4404, 1.4362, 1.4462

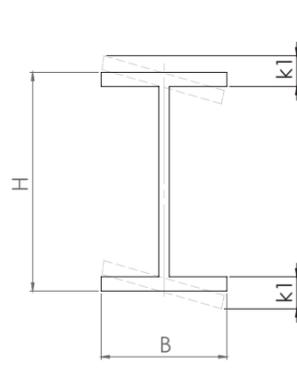
Delivery condition	
Manufacturing	Welded
Surface condition	Pickled

Marking on products	
Laser marked or engraved	Stalutube Oy, made in EU, steel grade, dimensions, plate number
Bundle tag	Dimensions, steel grade, surface condition, bundle size, plate number, bundle number

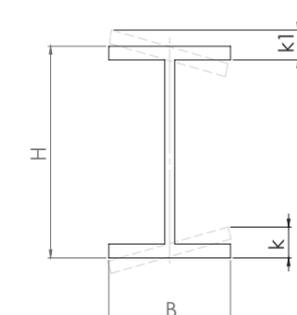
Bundle packing
Plastic bands

Availability
The availability of dimension and steel grade should be checked before ordering.

Tolerances		Height, mm	Tolerance, mm
	Section height H	H ≤ 180	-2.0 / +3.0
		180 < H ≤ 400	-2.0 / +4.0
		400 < H ≤ 600	-3.0 / +5.0
	Flange width B	Width, mm	Tolerance, mm
		B ≤ 110	-1.0 / +4.0
		110 < B ≤ 210	-2.0 / +4.0
210 < B ≤ 300	-4.0 / +4.0		

		Thickness, mm	Tolerance, mm
	Web thickness Tw	Tw = 5.0	± 0.36
		5.0 < Tw ≤ 6.0	± 0.38
		6.0 < Tw ≤ 8.0	± 0.40
		8.0 < Tw ≤ 10.0	± 0.44
		10.0 < Tw ≤ 12.0	± 0.48 *)
	Flange thickness Tf	Width, mm	Tolerance, mm
		Tf = 6.0	± 0.38
		6.0 < Tf ≤ 8.0	± 0.40
		8.0 < Tf ≤ 10.0	± 0.44
		10.0 < Tf ≤ 12.0	± 0.48*
12.0 < Tf < 20.0	-0.30/+1.40		
Tf = 20.0	-0.30/+1.55		

\*For Duplex -0.30/+1.40

		Length L	Tolerance, mm
	Out of square k+k1	Flange width B, mm	Tolerance, mm
		B ≤ 110	1.5
		B > 110	0.02 x B
	Web off-centre e e = (b1-b2) / 2	Flange width B, mm	Tolerance, mm
		B ≤ 110	2.5
		110 < B ≤ 300	3.5
	Straightness qxx and qyy	Section height H, mm	Tolerance, mm
		100 ≤ H ≤ 180	0.30 % x L
		180 < H ≤ 360	0.15 % x L
		H > 360	0.10 % x L

Thickness tolerances: EN ISO 9444-2 up to 12 mm (duplex up to 10 mm), EN ISO 18286 over 12 mm (duplex over 10 mm). Other tolerances: EN 10034

Welded I-beams with outside dimensions according IPE - HEA - HEB designation. Flange and web thickness according to coil or plate standard.

Flange and web dimensions according to DIN 1025-5					
IPE	H	B	TW	TF	kg/m
200	200	100	6	8	21.36
220	220	110	6	10	26.86
240	240	120	6	10	29.39
270	270	135	8	10	37.13
300	300	150	8	10	41.40
330	330	160	8	12	49.68
360	360	170	8	12	53.47
400	400	180	8	15	66.04
450	450	190	10	15	78.21
500	500	200	10	15	84.53

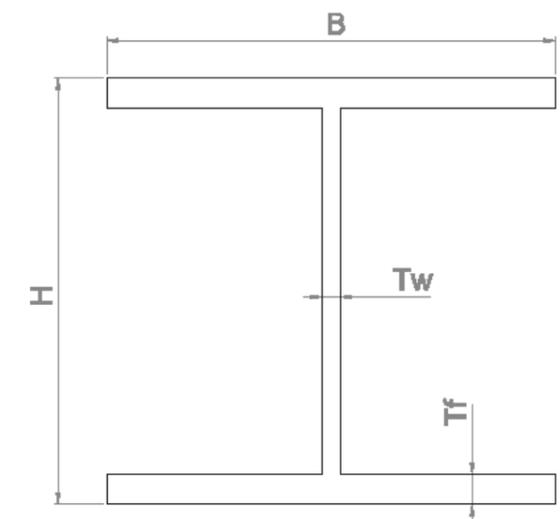
Dimensions up to 400 x 115 according DIN 1026-2 (outer dimensions)

Flange and web dimensions according to DIN 1025-3					
HEA	H	B	TW	TF	kg/m
120	114	120	5	8	19.04
140	133	140	6	8	23.24
160	152	160	6	10	31.54
180	171	180	6	10	35.60
200	190	200	8	10	42.34
220	210	220	8	10	46.77
240	230	240	8	12	58.52
260	250	260	8	12	63.58
280	270	280	8	12	68.64
300	290	300	8	15	87.53
320	310	300	10	15	93.22
340	330	300	10	15	94.80
360	350	300	10	20	119.29
400	390	300	10	20	122.45

Dimensions up to 400 x 115 according DIN 1026-2 (outer dimensions)

Flange and web dimensions according to DIN 1025-2					
HEB	H	B	TW	TF	kg/m
100	100	100	6	10	19.59
120	120	120	8	10	25.28
140	140	140	8	12	33.88
160	160	160	8	12	38.93
180	180	180	8	15	52.14
200	200	200	10	15	60.83
220	220	220	10	15	67.15
240	240	240	10	15	73.47
260	260	260	10	20	99.54
280	280	280	10	20	107.44
300	300	300	10	20	115.34

Dimensions up to 400 x 115 according DIN 1026-2 (outer dimensions)



### Dimension range

Height H: 100 - 500 mm  
 Flange width B: 100 - 300 mm  
 Web thickness Tw: 5 - 12 mm  
 Flange thickness Tf: 6 - 20 mm <sup>1)</sup>  
 Standard length 6 m

<sup>1)</sup>Duplex max 15 mm

# STALA Opti

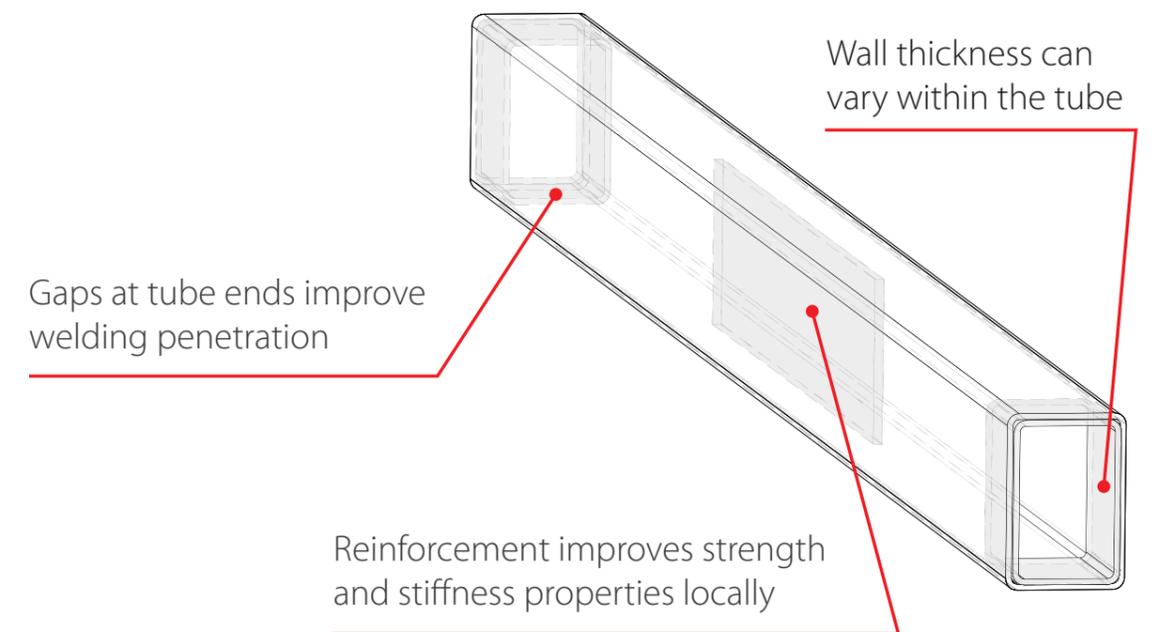


## The new reinforced tube with optimized strength, fatigue, and stiffness properties

The STALA Opti tube offers an excellent combination of flexural strength and light weight. Heavier wall thickness at the end of the tube allows better weld penetration and improved fatigue strength in welded tube joints. Reinforcement inside the tube significantly increases buckling resistance.

The optimal solution in those areas of the bus body structure where stiffness is required. STALA Opti offers excellent flexural strength for our customers looking for strength and durability without weight increase and stronger joints. This is a unique solution to strengthen the required area while eliminating the weight increase and is mainly suitable for bus body structures.

STALA Opti is available in all stainless steel grades in Stalatable's product portfolio.



Reinforced tube STALA Opti 60x40x2 mm

High flexural strength and buckling resistance | Avoid problems related to welding of thin wall thicknesses | Big weight-saving potential

USE OUR STRENGTH

## The best stainless steel solutions to answer your needs.

Over the past 50 years, we've gained the expertise, created the world's widest range of hollow sections and developed a global distribution network to be able to serve you in all corners of the globe, even in the most demanding projects and applications.

**STALA**  
TUBE

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