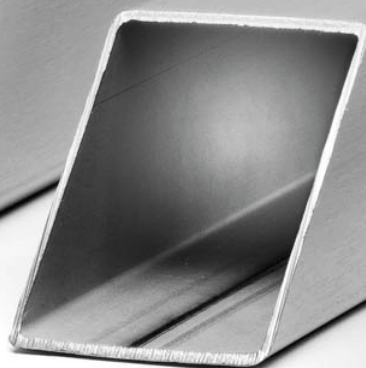
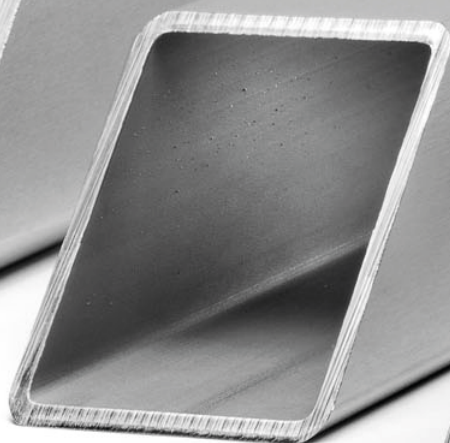
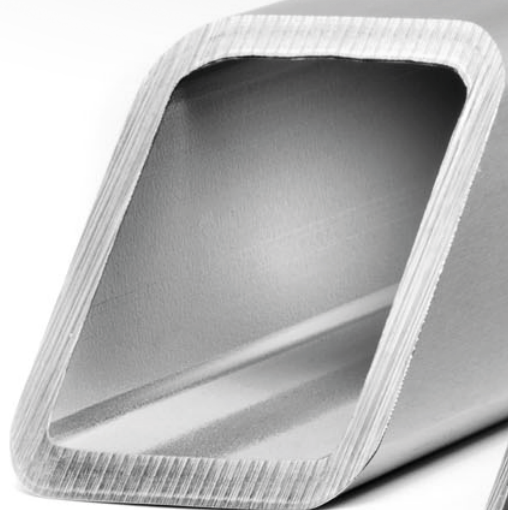
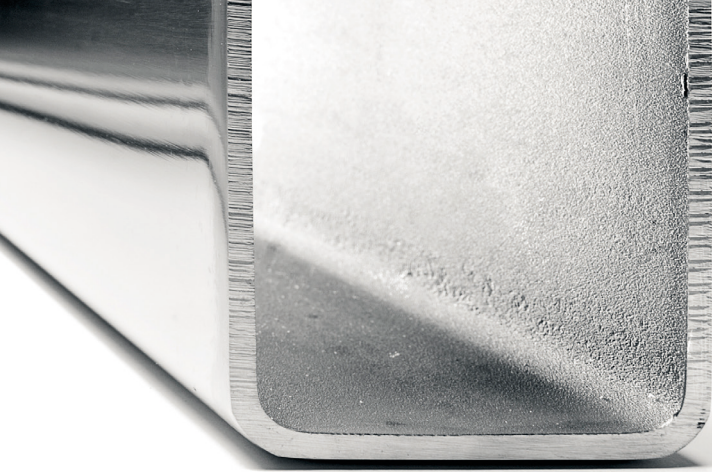




DATASHEET METRIC

Stainless hollow sections &

I-beams and profiles



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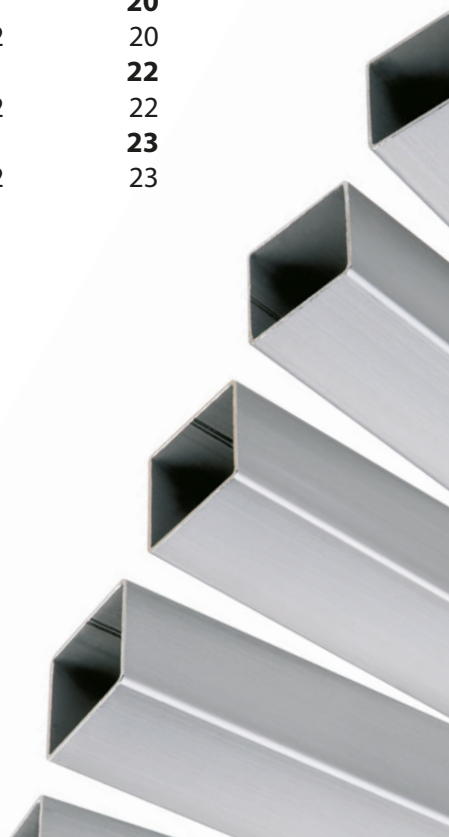
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Services

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. Don't hesitate to contact us!

Tolerances

Cut to length service	4-18 m, tolerance -0/+20 mm
Precise cutting	20-9000 mm, tolerance ± 1 mm ≥ 9000 mm, tolerance depends on the length
Angle cutting	30-90°, tolerance $\pm 1^\circ$
Laser cutting	Tolerance ± 0.5 mm

Surface enhancement

Surface finish is an essential part of the outlook, durability and functionality of a stainless steel structure. It is even possible to make surfaces hygienic where necessary.

Polishing	Ra [μm]
Grit 180	1.5 - 1.9
Grit 220/240	1.0 - 1.4
Grit 320	0.6 - 0.9
Polished tubes are single-packed: for dimensions $\leq 60 \times 60$ packing in plastic sleeve and for $> 60 \times 60$ in plastic foil. Bundles are packed with plastic foil, plastic bands and corner protections.	
Pickling	
Dip pickling	
Bundles are packed with plastic foil, plastic bands and corner protections	

Other optional services

Corner polishing and special surfaces by request

About Stalatube

Stalatube is known worldwide as a leading provider of stainless steel solutions and a manufacturer of highly developed stainless steel hollow sections, profiles and components. 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 right solution with their application or project - in even the most complex of cases. Our customizable, environmentally conscious solutions are here to build a better future. By co-operating with customers and investing in R&D, we believe anything can be achieved.

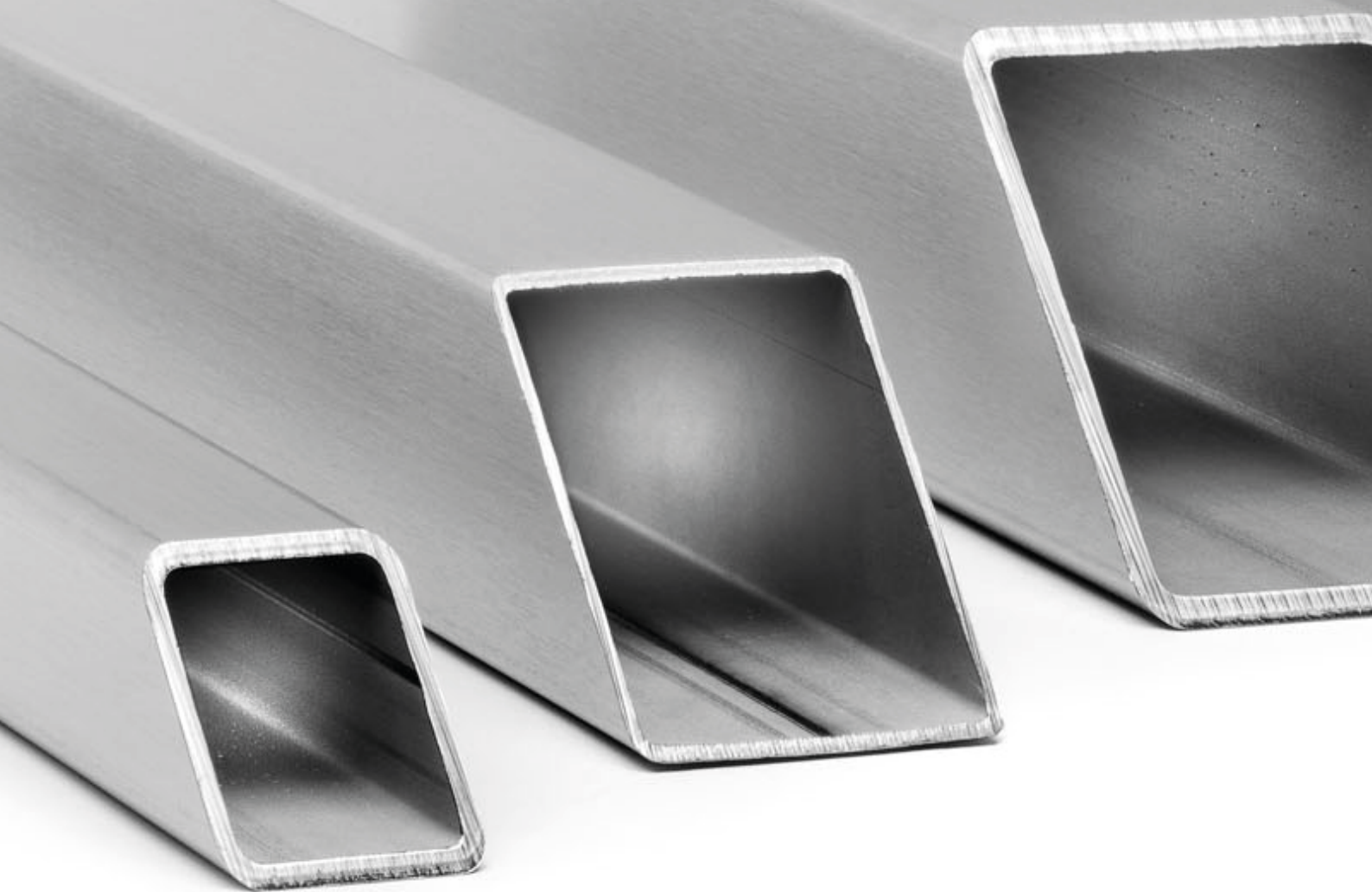
During over 50 years of pioneer work in the industry, we have built an international distribution network covering all continents and over 50 countries. Our head office and main production are in Finland, sales offices in the Netherlands, Poland, USA and India, and a new production facility for further 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.

Stalatube – Use our strength!



Hollow sections





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
1.4318	0.030	1.00	2.00	0.045	0.015	0.10-0.20	16.5-18.5		6.0-8.0		20
1.4404	0.030	1.00	2.00	0.045	0.015	0.10	16.5-18.5	2.0-2.50	10.0-13.0		24
1.4571	0.080	1.00	2.00	0.045	0.015		16.5-18.5	2.0-2.50	10.5-13.5	Ti 5xC-0.70	24
Ferritic											
EN	C	Si	Mn	P	S	N	Cr	Mo	Ni	Others	PRE
1.4003	0.030	1.00	1.50	0.040	0.015	0.030	10.5-12.5		0.30-1.00		12
Lean Duplex and duplex											
EN	C	Si	Mn	P	S	N	Cr	Mo	Ni	Others	PRE
1.4062 ¹⁾	0.030	1.00	2.00	0.040	0.010	0.16-0.28	21.5-24.0	0.45	1.00-2.90		26
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

¹⁾ Fulfills the standard EN 10088-2

Mechanical properties

Roll-formed hollow sections | Standard strength class

Fulfills the standards EN 10088-2 and EN 10088-4

Measured from coil, minimum values unless indicated otherwise

Austenitic				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A* %	
1.4301	210	520-720	45	
1.4307	200	520-700	45	
1.4404	220	530-680	40	
1.4571	220	540-690	40	
High-strength austenitic				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A* %	
1.4318	350	650-850	40	
Ferritic				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A* %	
1.4003	320	450-650	20	
Lean Duplex and duplex				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A* %	
1.4062	480	680-900	20	1)
1.4162	480	680-900	20	
1.4362	500	690	25	2)
1.4462	460	700-950	25	

1) Fulfills the standard EN 10088-2

2) EDX2304

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

Roll-formed hollow sections | Enhanced strength class

Measured from tube, minimum values

Austenitic			
Available in steel grades 1.4301, 1.4307, 1.4404 and 1.4571			
Tube	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
Stala 350 ¹⁾	350	600	30
High-strength austenitic			
Available in steel grades 1.4318			
Tube	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
Stala 350	350	600	30
Stala 500	500	750	25
Ferritic			
Available in steel grade 1.4003			
Tube	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
Stala 400F ²⁾	400	450	10
Lean Duplex			
Available in steel grades 1.4062 and 1.4162			
Tube	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %
Stala 630D ³⁾	630	750	20

¹⁾ Available for dimensions up to
100 x 100 x 6 / 120 x 80 x 6 mm

²⁾ Available for dimensions up to
100 x 100 x 5 / 120 x 80 x 5 mm

³⁾ Available for dimensions up to
100 x 100 x 5 / 120 x 80 x 5 mm

Press brake hollow sections

Fulfills the standards 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 %	
1.4301	210	520-720	45	
1.4307	200	500-700	45	
1.4404	220	520-680	40	
1.4571	220	520-690	40	
Lean Duplex and duplex				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %	
1.4062	450	650-900	30	1)
1.4162	450	650-900	30	
1.4362	420	630	25	2)
1.4462	460	640-950	25	

1) Fulfills the standard EN 10088-2

2) EDX2304

Roll-formed hollow sections

Austenitic EN 1.4301, 1.4307, 1.4404, 1.4571

Delivery condition	
Forming	Cold formed (roll-formed)
Welding process	TIG/Plasma, Laser or HF
Weld condition	External weld bead removed

Bundle packing	
Plastic bands	

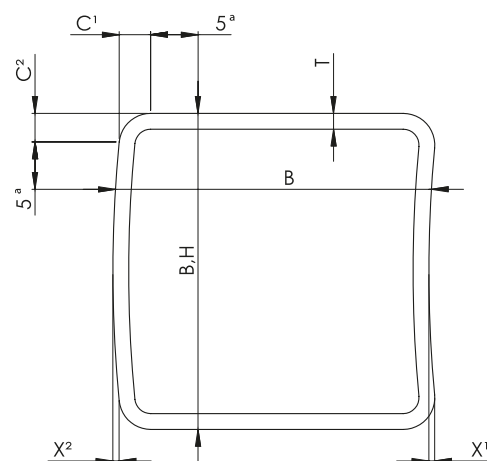
Tube marking	
Ink-jet marking on tube	Stalatube Oy made in Finland, steel grade, dimensions, coil number, production week/year, welding operator
Bundle tag	Dimensions, steel grade, surface condition, bundle size, batch id, coil number, bundle number

Surface condition	
Brushed (Stalazzo), when tube dimension is $\leq 100 \times 100 \times 6$ mm	
As welded (unpol), when tube dimension is $> 100 \times 100 \times 6$ mm	

Tolerances (according to EN 10219-2)		
Characteristic	Tolerance	
Outside dimensions, B and H	B, H < 100 mm: $\pm 1\%$, min ± 0.5 mm 100 mm $\leq$ B, H ≤ 200 mm: $\pm 0.8\%$ B, H > 200 mm: $\pm 0.6\%$	
Concavity / Convexity (X'/X^2)	Max. 0.8 % with a minimum of 0.5 mm	
Wall thickness, T	$\pm 10\%$, when $T \leq 5$ mm ± 0.5 mm, when $T > 5$ mm	
Squareness of sides	$90^\circ \pm 1^\circ$	
External corner profile, C1, C2 or R	B+H ≤ 200 mm and $T \leq 3$ mm: Max 1.5T B+H ≤ 200 mm and $T > 3$ mm: 1.6T – 2.4T B+H > 200 mm and $T \leq 4$ mm: 2T – 3T B+H > 200 mm and $T > 4$ mm: 1.6T – 2.4T	1)
Length, L	Standard length 6 m, tolerance 0/+20 mm	1)
Straightness	0.15 % of total length	
Twist	2 mm + 0.5 mm/m	

Maximum thickness for steel grade 1.4571 is 6 mm.

1) Exception from standard



^a This dimension is maximum when measuring B or H and minimum when measuring T

Square		Weight [kg/m]									
H x B [mm]		1.2	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0
20	20	0.729	0.901	1.176							
25	25	0.921	1.140	1.495	2.167						
30	30	1.112	1.379	1.814	2.645						
32	32	1.189	1.475	1.941	2.837						
35	35	1.304	1.618	2.133	3.124						
38	38	1.418	1.762	2.324	3.411						
40	40	1.495	1.858	2.452	3.602	4.703					
45	45		2.097	2.771	4.081	5.341					
50	50		2.336	3.090	4.559	5.979	7.349				
60	60		2.814	3.728	5.516	7.255	8.943	10.582			
70	70			4.366	6.473	8.531	10.538	12.496			
75	75			4.685	6.952	9.169	11.336	13.453			
80	80			5.004	7.430	9.807	12.133	14.410			
90	90			5.641	8.387	11.083	13.728	16.324			
100	100			6.279	9.344	12.359	15.323	18.237	23.916	29.394	
120	120				11.258	14.910	18.513	22.065	29.020	35.774	
140	140				13.172	17.462	21.703	25.893	34.123	42.153	
150	150				14.129	18.738	23.298	27.807	36.675	45.343	53.811
200	200				18.913	25.118	31.272	37.376	49.434	61.292	72.950
220	220					27.670	34.462	41.204	54.538	67.672	80.605
250	250						39.247	46.946	62.194	77.241	92.089
300	300						47.221	56.515	74.953	93.190	111.227

Sizes marked in **bold** are available in enhanced strength class Stala 350.

Rectangular		Weight [kg/m]									
H x B [mm]		1.2	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0
30	20	0.921	1.140	1.495							
35	25	1.112	1.379	1.814	2.645						
40	10	0.921	1.140	1.495							
40	20	1.112	1.379	1.814	2.645						
40	25	1.208	1.499	1.973	2.885						
40	30	1.304	1.618	2.133	3.124						
50	10	1.112	1.379	1.814							
50	20	1.304	1.618	2.133	3.124						
50	25	1.399	1.738	2.292	3.363						
50	30	1.495	1.858	2.452	3.602						
50	40		2.097	2.771	4.081	5.341					
60	10		1.618	2.133							
60	20		1.858	2.452	3.602						
60	30		2.097	2.771	4.081						
60	40		2.336	3.090	4.559	5.979					
70	50		2.814	3.728	5.516	7.255	8.943				
80	10		2.097	2.771							
80	20		2.336	3.090	4.559						
80	30		2.575	3.409	5.038						
80	40		2.814	3.728	5.516	7.255	8.943				
80	50			4.047	5.995	7.893	9.741				
80	60			4.366	6.473	8.531	10.538	12.496			
100	20		2.814	3.728							
100	30		3.054	4.047	5.995						
100	40			4.366	6.473	8.531	10.538				
100	50			4.685	6.952	9.169	11.336	13.453			
100	60			5.004	7.430	9.807	12.133	14.410			
100	80			5.641	8.387	11.083	13.728	16.324			
120	40			5.004	7.430	9.807					
120	60			5.641	8.387	11.083	13.728	16.324			
120	80			6.279	9.344	12.359	15.323	18.237			
120	100				10.301	13.635	16.918	20.151			
140	80				10.301	13.635	16.918	20.151			
150	50				9.344	12.359	15.323	18.237			
150	100				11.736	15.548	19.310	23.022	30.296	37.369	
160	80				11.258	14.910	18.513	22.065			
200	100				14.129	18.738	23.298	27.807	36.675	45.343	
250	100				16.521	21.928	27.285	32.592	43.055	53.318	
250	150				18.913	25.118	31.272	37.376	49.434	61.292	72.950
300	100				18.913	25.118	31.272	37.376	49.434	61.292	
300	200						39.247	46.946	62.194	77.241	92.089
400	200						47.221	56.515	74.953	93.190	111.227

Other dimensions may also be possible on request. Maximum thickness for steel grade 1.4571 is 6 mm.
 Sizes marked in **bold** are available in enhanced strength class Stala 350.

High-strength austenitic EN 1.4318

Delivery condition	
Forming	Cold formed (roll-formed)
Welding process	TIG/Plasma, Laser or HF
Weld condition	External weld bead removed

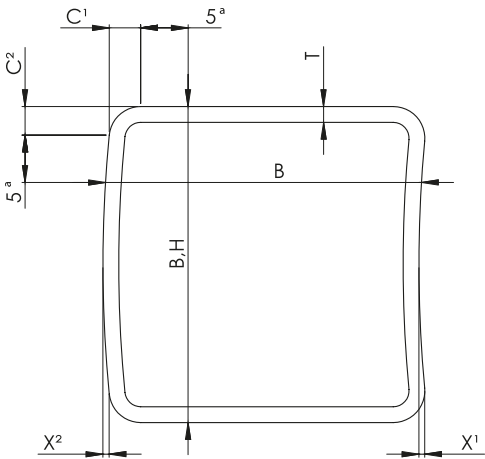
Bundle packing	
Plastic bands	

Tube marking	
Ink-jet marking on tube	Stalatube Oy made in Finland, steel grade, dimensions, coil number, production week/year, welding operator
Bundle tag	Dimensions, steel grade, surface condition, bundle size, batch id, coil number, bundle number

Surface condition	
Brushed (Stalazzo), when tube dimension is ≤ 100x100x6 mm	
As welded (unpol), when tube dimension is > 100x100x6 mm	

Tolerances (according to EN 10219-2)		
Characteristic	Tolerance	
Outside dimensions, B and H	B,H < 100 mm: ± 1 %, min ± 0.5 mm 100 mm ≤ B,H ≤ 200 mm: ± 0.8 % B,H > 200 mm: ± 0.6 %	
Concavity / Convexity (X ¹ /X ²)	Max. 0.8 % with a minimum of 0.5 mm	
Wall thickness, T	± 10 %, when T ≤ 5 mm ± 0.5 mm, when T > 5 mm	
Squareness of sides	90° ± 1°	
External corner profile, C1, C2 or R	B+H ≤ 200 mm and T ≤ 3 mm: Max 1.5T B+H ≤ 200 mm and T > 3 mm: 1.6T – 2.4T B+H > 200 mm and T ≤ 4 mm: 2T – 3T B+H > 200 mm and T > 4 mm: 1.6T – 2.4T	1)
Length, L	Standard length 6 m, tolerance 0/+20 mm	1)
Straightness	0.15 % of total length	
Twist	2 mm + 0.5 mm/m	

Maximum thickness for steel grade 1.4571 is 6 mm.



^a This dimension is maximum when measuring B or H and minimum when measuring T

Square		Weight [kg/m]				
H x B [mm]		3.0	4.0	5.0	6.0	8.0
50	50	4.559	5.979			
60	60	5.516	7.255			
70	70	6.473	8.531			
75	75	6.952	9.169	11.336		
80	80	7.430	9.807	12.133		
90	90	8.387	11.083	13.728		
100	100	9.344	12.359	15.323	18.237	23.916
120	120	11.258	14.910	18.513	22.065	29.020
140	140	13.172	17.462	21.703	25.893	34.123
150	150	14.129	18.738	23.298	27.807	36.675
200	200	18.913	25.118	31.272	37.376	49.434
220	220		27.670	34.462	41.204	54.538
250	250			39.247	46.946	62.194
300	300			47.221	56.515	74.953

Sizes marked in **bold** are available in enhanced strength class Stala500.

Rectangular		Weight [kg/m]				
H x B [mm]		3.0	4.0	5.0	6.0	8.0
60	40	4.559				
70	50	5.516	7.255			
80	20	4.559				
80	30	5.038				
80	40	5.516	7.255			
80	50	5.995	7.893			
80	60	6.473	8.531			
100	30	5.995				
100	40	6.473	8.531			
100	50	6.952	9.169	11.336		
100	60	7.430	9.807	12.133		
100	80	8.387	11.083	13.728		
120	40	7.430	9.807			
120	60	8.387	11.083	13.728		
120	80	9.344	12.359	15.323	18.237	
120	100	10.301	13.635	16.918	20.151	
140	80	10.301	13.635	16.918	20.151	
150	50	9.344	12.359			
150	100	11.736	15.548	19.310	23.022	30.296
160	80	11.258	14.910	18.513	22.065	
200	100	14.129	18.738	23.298	27.807	36.675
250	100		21.928	27.285	32.592	43.055
250	150		25.118	31.272	37.376	49.434
300	100		25.118	31.272	37.376	49.434
300	200			39.247	46.946	62.194
400	200			47.221	56.515	74.953

Sizes marked in **bold** are available in enhanced strength class Stala500.

Ferritic EN 1.4003

Delivery condition	
Forming	Cold formed (roll-formed)
Welding process	Laser or HF
Weld condition	External weld bead removed

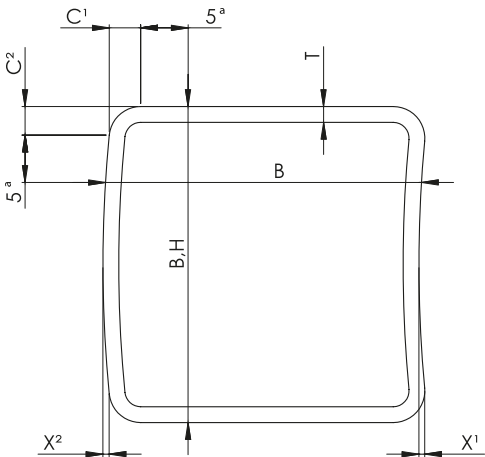
Bundle packing	
Plastic bands	

Tube marking	
Ink-jet marking on tube	Stalatube Oy made in Finland, steel grade, dimensions, coil number, production week/year, welding operator
Bundle tag	Dimensions, steel grade, surface condition, bundle size, batch id, coil number, bundle number

Surface condition	
As welded (unpol)	

Tolerances (according to EN 10219-2)		
Characteristic	Tolerance	
Outside dimensions, B and H	B,H < 100 mm: ± 1 %, min ± 0.5 mm B,H ≥ 100 mm: ± 0.8 %	
Concavity / Convexity	Max. 0.8 % with minimum of 0.5 mm	
Wall thickness, T	± 10 %	
Squareness of side	90° ± 1°	
External corner profile (C1, C2 or R)	1.6T - 2.4T	
Length	Standard length 6 m, tolerance 0/+20 mm	¹⁾
Straightness	0.15 % of total length	
Twist	2 mm + 0.5 mm/m	

¹⁾ Exception from standard



^a This dimension is maximum when measuring B or H and minimum when measuring T

Square		Weight [kg/m]						
H x B [mm]		1.5	2.0	2.5	3.0	4.0	5.0	6.0
20	20	0.810						
25	25	1.041	1.337					
30	30	1.272	1.645	1.993	2.316			
35	35	1.503	1.953	2.378	2.778			
38	38	1.642	2.138	2.609	3.055			
40	40	1.734	2.261	2.763	3.240	4.117		
45	45	1.97	2.57	3.15	3.70			
50	50	2.196	2.877	3.533	4.164	5.349		
55	55	2.43	3.19	3.92	4.63	5.97		
60	60		3.493	4.303	5.088	6.581	7.973	
70	70		4.109	5.073	6.012	7.813	9.513	
75	75		4.417	5.458	6.474	8.429	10.283	
80	80		4.725	5.843	6.936	9.045	11.053	12.96
90	90			6.61	7.86	10.28	12.59	14.81
100	100				8.784	11.509	14.133	16.66

Sizes marked in **bold** are available in enhanced strength class Stala400F.

Rectangular		Weight [kg/m]					
H x B [mm]		1.5	2.0	2.5	3.0	4.0	5.0
30	20	1.041	1.337				
40	20	1.272	1.645				
40	25	1.388	1.799	2.19			
40	30	1.503	1.953	2.378	2.778		
50	20	1.503	1.953				
50	25	1.62	2.11	2.57			
50	30	1.734	2.261	2.763	3.240		
50	40	1.965	2.569	3.148	3.702		
60	20	1.734	2.261				
60	30	1.965	2.569	3.148	3.702		
60	40	2.196	2.877	3.533	4.164	5.349	
60	50		3.185	3.918	4.626	5.965	
70	40		3.185	3.918	4.626	5.965	
70	50		3.493	4.303	5.088	6.581	
80	30		3.185	3.918	4.626		
80	40		3.493	4.303	5.088	6.581	
80	50		3.801	4.688	5.550	7.197	
80	60		4.109	5.073	6.012	7.813	9.513
100	30		3.801	4.688	5.550		
100	40		4.109	5.073	6.012	7.813	
100	50		4.417	5.458	6.474	8.429	
100	60		4.725	5.843	6.936	9.045	11.053
100	80			6.61	7.860	10.277	12.593
120	40		4.725	5.843	6.936	9.045	
120	60				7.860	10.277	12.593
120	80				8.784	11.509	14.133

Sizes marked in **bold** are available in enhanced strength class Stala400F.

Lean Duplex and duplex EN 1.4062, 1.4162, 1.4362, 1.4462

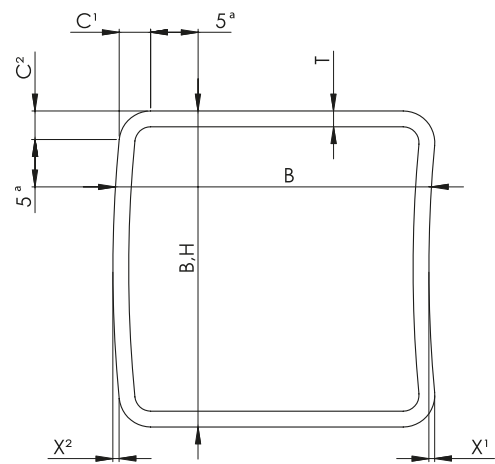
Delivery condition	
Forming	Cold formed (roll-formed)
Welding process	TIG/Plasma, Laser or HF
Weld condition	External weld bead removed

Bundle packing	
Plastic bands	

Tube marking	
Ink-jet marking on tube	Stalatube Oy made in Finland, steel grade, dimensions, coil number, production week/year, welding operator
Bundle tag	Dimensions, steel grade, surface condition, bundle size, batch id, coil number, bundle number

Surface condition	
Brushed (Stalazzo), when tube dimension is ≤ 100x100x6 mm	
As welded (unpol), when tube dimension is > 100x100x6 mm	

Tolerances (according to EN 10219-2)		
Characteristic	Tolerance	
Outside dimensions, B and H	B, H < 100 mm: ± 1 %, min ± 0.5 mm B, H ≥ 100 mm: ± 0.8 %	¹⁾
Concavity / Convexity (X ¹ /X ²)	Max. 0.8 % with minimum of 0.5 mm	
Wall thickness, T	± 10 %	
Squareness of side	90° ± 1°	
External corner profile, C1, C2 or R	B+H ≤ 200 mm: 1.6T – 2.4T B+H > 200 mm and T ≤ 4 mm: 2.0T – 3.0T B+H > 200 mm and T > 4 mm: 1.6T – 2.4T	¹⁾
Length	Standard length 6 m, tolerance 0/+20 mm	¹⁾
Straightness	0.15 % of total length	
Twist	2 mm + 0.5 mm/m	



^a This dimension is maximum when measuring B or H and minimum when measuring T

¹⁾ Exception from standard

Square		Weight [kg/m]							
H x B [mm]		1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0
25	25	1.055	1.355						
30	30	1.289	1.667	2.019					
32	32	1.382	1.792	2.175					
35	35	1.523	1.979	2.409					
38	38	1.663	2.166	2.643					
40	40	1.757	2.291	2.799	3.282				
45	45	1.991	2.603	3.189	3.750				
50	50	2.225	2.915	3.579	4.218	5.419			
55	55	2.459	3.227	3.969	4.686				
60	60	2.693	3.539	4.359	5.154	6.667			
70	70		4.163	5.139	6.090	7.915			
75	75		4.475	5.529	6.558	8.539			
80	80		4.787	5.919	7.026	9.163	11.197		
90	90			6.699	7.962	10.411	12.757		
100	100			7.479	8.898	11.659	14.317	16.872	
120	120				10.770	14.155	17.437	20.616	
150	150				13.578	17.899	22.117	26.232	
200	200					24.139	29.917	35.592	46.635
250	250						37.717	44.952	59.115
300	300						45.517	54.312	71.595

All dimensions are available in steel grade 1.4162.
Maximum thickness for steel grade 1.4062 is 5 mm.

Steel grades 1.4362 and 1.4462 are possible for
thickness ≥ 3 mm and B, H ≥ 60 mm.

Sizes marked in **bold** are available in enhanced
strength class Stala630D.

Rectangular		Weight [kg/m]							
H x B [mm]		1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0
30	20	1.055							
40	20	1.289	1.667						
40	30	1.523	1.979	2.409					
50	20	1.523	1.979						
50	25	1.640	2.135	2.604					
50	30	1.757	2.291	2.799					
50	40	1.991	2.603	3.189	3.750				
60	20	1.757	2.291						
60	30	1.991	2.603	3.189					
60	40	2.225	2.915	3.579	4.218	5.419			
60	50	2.459	3.227	3.969	5.154	6.043			
70	50	2.693	3.539	4.359	5.154	6.667			
80	30	2.459	3.227	3.969	4.686				
80	40	2.693	3.539	4.359	5.154	6.667			
80	60		4.163	5.139	6.090	7.915			
100	30		3.851	4.749	5.622				
100	40		4.163	5.139	6.090	7.915			
100	50		4.475	5.529	6.558	8.539			
100	60		4.787	5.919	7.026	9.163	11.197		
100	80		5.411	6.699	7.962	10.411	12.757		
120	40		4.787	5.919	7.026	9.163			
120	60			6.699	7.962	10.411	12.757		
120	80			7.479	8.898	11.659	14.317		
150	100				11.238	14.779	18.217	21.552	
200	100				13.578	17.899	22.117	26.232	
250	150				18.258	24.139	29.917	35.592	
300	100					24.139	29.917	35.592	
300	200					30.379	37.717	44.952	59.115
400	200						45.517	54.312	71.595

All dimensions are available in steel grade 1.4162.
Maximum thickness for steel grade 1.4062 is 5 mm.

Steel grades 1.4362 and 1.4462 are possible for
thickness ≥ 3 mm and B, H ≥ 60 mm.

Sizes marked in **bold** are available in enhanced
strength class Stala630D.

Press brake hollow sections

EN 1.4301, 1.4307, 1.4404, 1.4162, 1.4362, 1.4462

Press brake hollow sections in duplex grades are available for dimensions with T=6-12 mm, B and H 150-500 mm

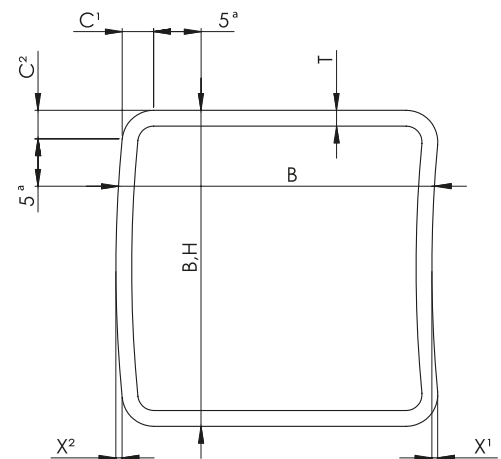
Delivery condition	
Forming	Press brake, made of two U or J profiles
Welding process	TIG or MAG

Bundle packing	
Plastic bands	
Corner protection	

Tube marking	
Marking on tube	Coil or plate number
Bundle tag	Dimensions, steel grade, surface condition, bundle size, batch id, coil or plate number, bundle number

Surface condition	
As welded (unpol) and pickled	

Tolerances	
Characteristic	Tolerance
Outside dimensions, B and H	$\pm 1.0 \%$, min ± 1 mm
Concavity / Convexity	Included in outside dimensions
Wall thickness, T	$\pm 10 \%$
Squareness of sides	$90^\circ \pm 1^\circ$
External corner profile, C1, C2	Max 3T
Length	± 5 mm
Straightness	1 mm/m
Twist	2 mm + 0.5 mm/m
External weld bead	Width: Max 2T Height: Max 2 mm



^a This dimension is maximum when measuring B or H and minimum when measuring T

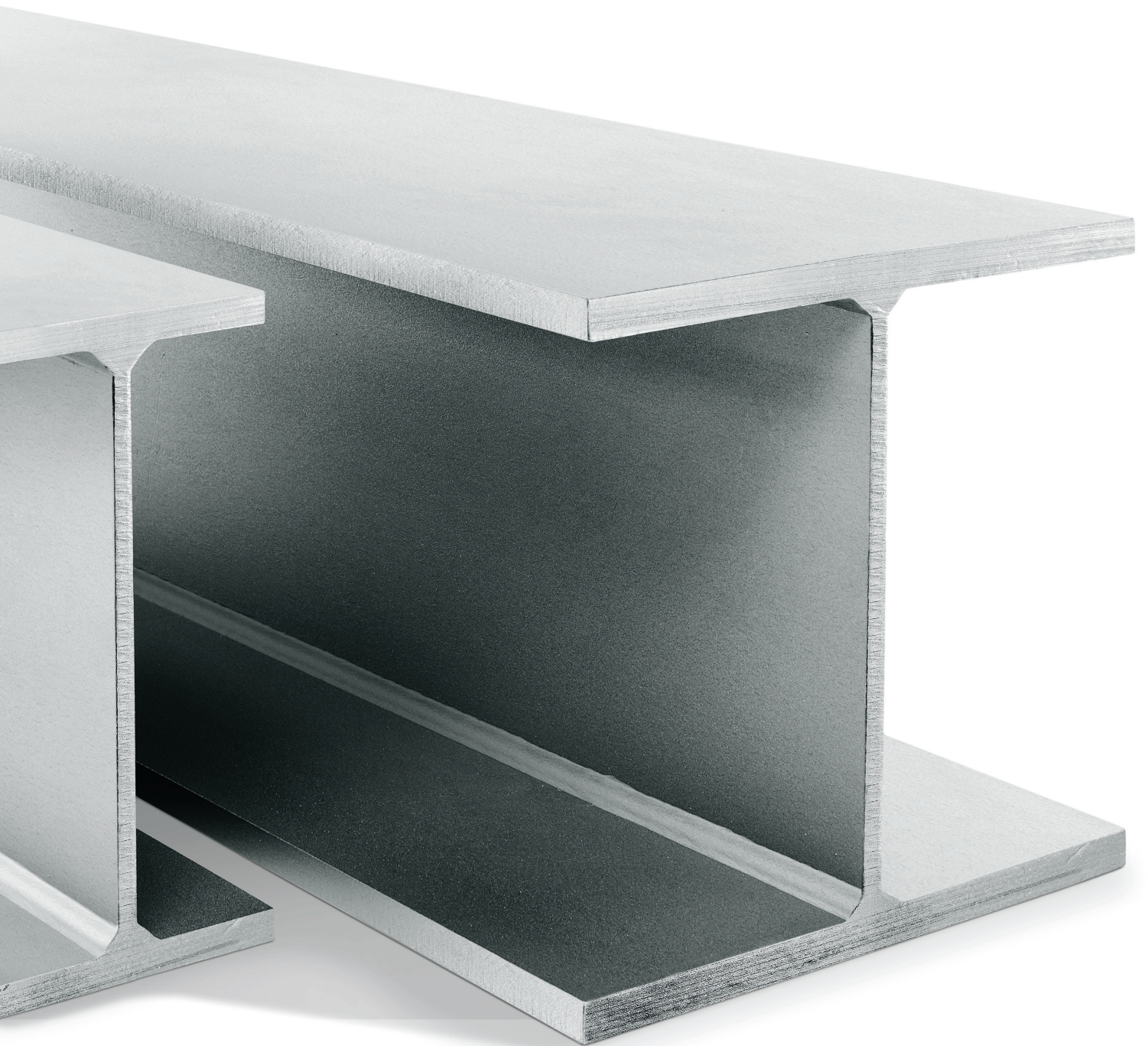
Square							
H x B [mm]		5	6	8	10	12	15
120	120	17.49	20.64	26.57			
140	140	20.65	24.43	31.63	38.36*		
150	150	22.23	26.32	34.16	41.52*		
160	160	23.81	28.22	36.69	44.68*		
180	180	26.97	32.01	41.74	51.00	59.79*	
200	200	30.13	35.80	46.80	57.32	67.38*	
250	250	38.03	45.28	59.44	73.12	86.34*	
300	300	45.93	54.76	72.08	88.92	105.30	128.98*
400	400		73.72	97.36	120.52	143.22	176.38
500	500		92.68	122.64	152.12	181.14	223.78

* Not available on 1.4162, 1.4362, 1.4462

Rectangular							
H x B [mm]		5	6	8	10	12	15
150	80	16.70	19.69*				
160	100	19.07	22.53				
180	100	20.65	24.43				
200	100	22.23	26.32				
250	150	30.13	35.80	46.80	57.32*		
300	100	30.13	35.80				
300	200	38.03	45.28	59.44	73.12	86.34*	
350	150	38.03	45.28	59.44	73.12*		
350	250	45.93	54.76	72.08	88.92	105.30*	
400	100	38.03	45.28				
400	300		64.24	84.72	104.72	124.26*	152.68*
450	150		54.76	72.08	88.92*		
500	200		64.24	84.72	104.72	124.26*	
500	300		73.72	97.36	120.52	143.22*	176.38*
500	400		83.20	110.00	136.32	162.18	200.08

* Not available on 1.4162, 1.4362, 1.4462

I-beams and profiles



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
1.4571	0.080	1.00	2.00	0.045	0.015		16.5-18.5	2.00-2.50	10.5-13.5	Ti 5xC - 0.70	24
Lean Duplex and duplex											
EN	C	Si	Mn	P	S	N	Cr	Mo	Ni	Others	PRE
1.4062 ¹⁾	0.030	1.00	2.00	0.040	0.010	0.16-0.28	21.5-24.0	0.45	1.00-2.90		26
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 %	
1.4301	210	520-720	45	
1.4307	200	500-700	45	
1.4404	220	520-680	40	
1.4571	220	520-690	40	
Lean Duplex and duplex				
EN	0.2 % - proof strength Rp0.2 MPa	Tensile strength Rm MPa	Elongation A5 %	
1.4062	450	650-900	30	1)
1.4162	450	650-900	30	
1.4362	420	630	25	2)
1.4462	460	640-950	25	

1) Fulfills the standard EN 10088-2
2) EDX2304

Stainless welded I-beams

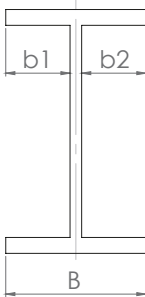
EN 1.4301, 1.4307, 1.4404, 1.4571, 1.4062, 1.4162, 1.4362, 1.4462

Delivery condition	
Manufacturing	Welded
Surface condition	Pickled

Marking on products	
Laser marked or engraved	Stalatube 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			
	Section height H	Height, mm	Tolerance, mm
		H ≤ 180	-2.0 / +3.0
		180 < H ≤ 400	-2.0 / + 4.0
	Flange width B	400 < H ≤ 600	-3.0 / + 5.0
		Width, mm	Tolerance, mm
		B ≤ 110	-1.0 / + 4.0
		110 < B ≤ 210	-2.0 / + 4.0
		210 < B ≤ 300	-4.0 / + 4.0

The diagram illustrates the cross-section of an I-beam. The total height is labeled 'H'. The width of the flange is labeled 'B'. The thickness of the web is labeled 'Tw'. The thickness of the flange is labeled 'Tf'. The fillet radius at the junction of the web and flange is labeled 'k1'. Dashed lines indicate the transition from the flange to the web.

Web thickness
Tw

Thickness, mm

Tolerance, mm

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 *)

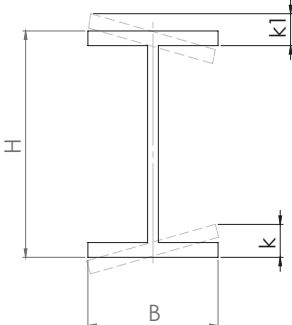
12.0 < Tf < 20.0

-0.30/+1.40

Tf = 20.0

-0.30/+1.55

*) For Duplex -0.30/+1.40

	Length L	Tolerance, mm
		± 5 mm
	Out of square $k+k1$	Flange width B, mm
		Tolerance, mm
		$B \leq 110$
		$B > 110$
		$0.02 \times B$
	Web off-centre e $e = (b1-b2) / 2$	Flange width B, mm
		Tolerance, mm
		$B \leq 110$
		$110 < B \leq 300$
		3.5
	Straightness qxx and qyy	Section height H, mm
		Tolerance, mm
		$100 \leq H \leq 180$
		$0.30 \% \times L$
		$180 < H \leq 360$
		$0.15 \% \times L$
		$H > 360$
		$0.10 \% \times L$

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

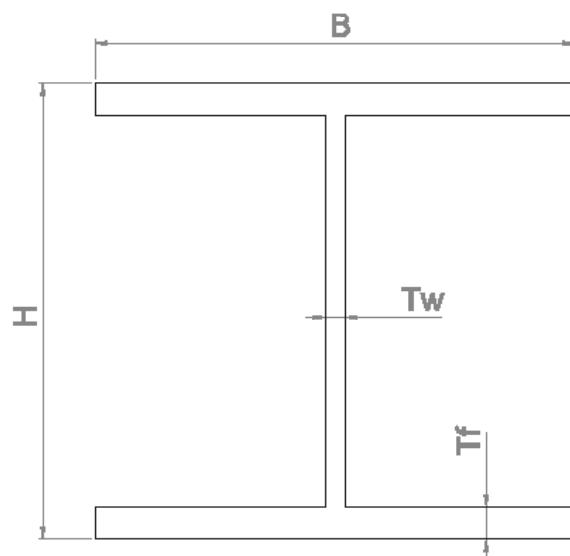
Dimensions up to 400 x 115 according DIN 1026-2 (outer dimensions)

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	16	99.38
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	16	77.10
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 ¹⁾
 Standard length 6 m

¹⁾Duplex max 15 mm

Stainless U-profiles

EN 1.4301, 1.4307, 1.4404, 1.4571, 1.4062, 1.4162, 1.4362, 1.4462

Delivery condition	
Manufacturing	Press brake
Surface condition	1D

Bundle packing	
Plastic bands	

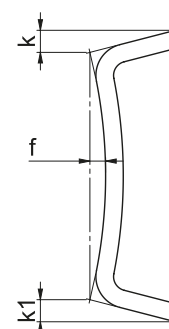
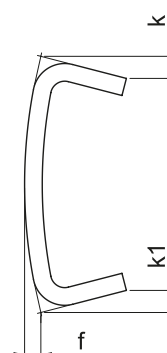
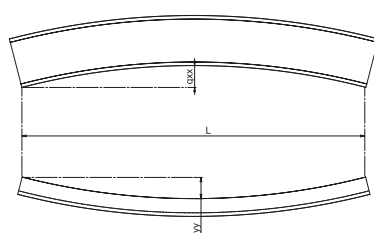
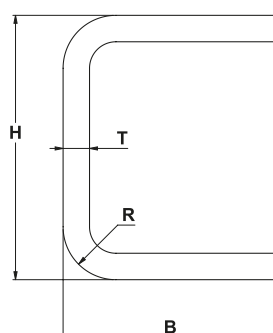
Marking on products	
Laser marked or engraved	Stalatube Oy, made in EU, steel grade, dimensions, plate number
Bundle tag	Dimensions, steel grade, surface condition, bundle size, plate number, bundle number

Tolerances according EN 10279		
Characteristic	Tolerance	
Height, H	Height, mm	Tolerance, mm
	H ≤ 65	± 1.50
	65 < H ≤ 200	± 2.00
	200 < H ≤ 400	± 3.00
	H > 400	± 4.00
Flange width, B	Width, mm	Tolerance, mm
	B ≤ 50	± 1.50
	50 < B ≤ 100	± 2.00
	100 < B ≤ 125	± 2.50
	B > 125	± 3.00
Thickness, T *)	Thickness, mm	Tolerance, mm
	5.0 < T ≤ 6.0	± 0.38
	6.0 < T ≤ 8.0	± 0.40
	8.0 < T ≤ 10.0	± 0.44
	10.0 < T ≤ 12.0	± 0.48 (Duplex -0.30/+1.40)
	12.0 < T < 20.0	-0.30/1.40
	T = 20.0	-0.30/1.55
Squareness, k+k1	Flange width, mm	Tolerance, mm
	B ≤ 160	4.00 *)
	B > 160	2.5% x B *)
Web flatness, f	Height, mm	Tolerance, mm
	H ≤ 200	± 1.0 *)
	H > 200	± 1.5
Straightness, qxx	Height, mm	Tolerance, mm
	H ≤ 150	± 0.3% of L
	150 < H ≤ 300	± 0.2% of L
	H > 300	± 0.15% of L
Straightness, qyy	Height, mm	Tolerance, mm
	H ≤ 150	± 0.5% of L
	150 < H ≤ 300	± 0.3% of L
	H > 300	± 0.2% of L
Characteristic	Tolerance, mm	
Outside corner radius, R	Max 3xT *)	
Length, L	± 5 *)	

*) Exception from standard

U-profile standard dimensions				
H	B	T	kg/m	
120	60	5	8.75	
140	65	6	11.74	
160	70	6	13.16	
180	75	8	18.98	
200	80	8	20.87	
220	85	8	22.77	
240	90	10	30.24	
270	95	10	33.40	
300	100	10	36.56	
330	105	10	39.72	
360	110	12	50.76	
400	115	12	55.50	
500	125	12	66.87	
600	150	15	100.04	
800	200	20	177.85	*
1000	250	20	225.25	*

Dimensions up to 400 x 115 according DIN 1026-2 (outer dimensions)
 *) For 1.4062 thicknesses of 12mm and above are not available



Dimension range:
 Height H: 120-1000 mm
 Width B: 60-500 mm
 Thickness T: 5-20 mm ¹⁾
 Length L: 3-6 m, standard length 6 m

¹⁾ Duplex max 15 mm

Stainless L-profiles

EN 1.4301, 1.4307, 1.4404, 1.4571, 1.4062, 1.4162, 1.4362, 1.4462

Delivery condition	
Manufacturing	Press brake
Surface condition	1D

Bundle packing	
Plastic bands	

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

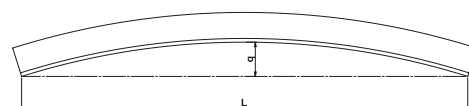
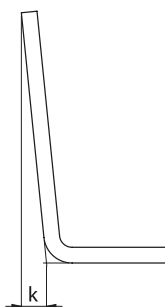
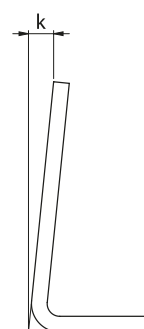
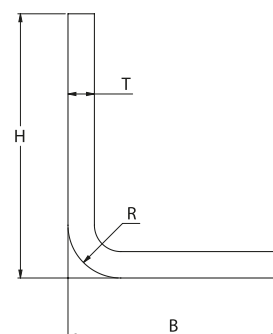
Tolerances according EN 10056-2		
Characteristic	Tolerance	
Leg length, B and H	Leg length, mm	Tolerance, mm
	H ≤ 50	± 1.0
	50 < H ≤ 100	± 2.0
	100 < H ≤ 150	± 3.0
	150 < H ≤ 200	± 4.0
	H > 200	-4.0 / +6.0
Thickness, T *)	Thickness, mm	Tolerance, mm
	5.0 < T ≤ 6.0	± 0.38
	6.0 < T ≤ 8.0	± 0.40
	8.0 < T ≤ 10.0	± 0.44
	10.0 < T ≤ 12.0	± 0.48 (Duplex -0.30/+1.40)
	12.0 < T < 20.0	-0.30/1.40
	T = 20.0	-0.30/1.55
Squareness, k	Leg length, mm	Tolerance, mm
	H ≤ 200	2 *)
	H > 200	3.0
Straightness over full length, q	Leg length, mm	Tolerance, mm
	H ≤ 150	0.4% x L
	150 < H ≤ 200	0.2% x L
	H > 200	0.1% x L
Straightness over any part	Length considered, mm	Tolerance, mm
H ≤ 150	1500	6
150 < H ≤ 200	2000	3
H > 200	3000	3
Characteristic	Tolerance, mm	
Outside corner radius, R	Max 3xT *)	
Length, L	± 5 *)	

*) Exception from standard

L-profile standard dimensions				
H	B	T	kg/m	
50	50	5	3.58	
60	60	6	5.16	
80	80	8	9.17	
100	100	10	14.33	
140	140	12	24.43	
170	170	15	36.99	
200	200	20	57.33	*
250	250	20	73.13	*
300	300	20	88.93	*
400	400	20	120.53	*
500	500	20	152.13	*

Dimensions up to 200 x 200 x 20 according to EN 10056-1

*For 1.4062 thicknesses of 12mm and above are not available



Dimension range:

Height H: 50-500 mm
Width B: 50-500 mm
Thickness T: 5-20 mm ¹⁾
Length L: 3-6 m,
standard length 6 m

¹⁾Duplex max 15 mm

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