

outokumpu
high performance stainless steel



Nordic Bar Stock

Competitive prices and short delivery times

High performance stainless steel bars

Nordic Bar Stock in Sweden offers services for distributors providing high quality, competitive prices and short lead times.

Our industry-leading, over a century long expertise in stainless steel production and our unique processes allow us to deliver bars with exceptional consistency and machinability. Our end-to-end approach, from melting and rolling to finishing and testing, ensures the highest quality according to customer specifications. Delivery reliability, competitive lead times and technical support are the cornerstones of our customer promise.





The service location is situated in Storfors, Sweden that offers logistically attractive location in the center of the Nordics. All deliveries can be shipped from warehouse within one week. The offering consists of a combined portfolio from Outokumpu and Böllinghaus Steel.

Max one week delivery time in the Nordic countries

New supplier in the market offering stock services

High quality bars in both standard and improved machinable bars

Wide range of bars in round, flat, square and hexagon shapes

Cold drawn bar

The cold drawing process is improving the mechanical strength and dimensional tolerances. It is achieved by cold deforming a hot rolled product using a die, resulting in a slight area reduction. Nordic Bar Stock offer cold drawn products in round, square, hexagonal and flat shape in 3 m lengths with a bundle weight of around half a tonne.

Cold drawn	ISO 286 h9	ISO 286 h11	ISO 286 h11	ISO 286 h11
	●	⬡	■	—
Core 304/4301	6-32	8-70	8-80	15x3 to 130x50
Core 304L/4307	6-32	8-70	8-80	15x3 to 130x50
Supra 316/4401	6-32	8-70	8-80	15x3 to 130x50
Supra 316L/4404	6-32	8-70	8-80	15x3 to 130x50
Prodec 304/4301	6-32	8-70	8-80	15x3 to 130x50
Prodec 304L/4307	6-32	8-70	8-80	15x3 to 130x50
Prodec 316/4401	6-32	8-70	8-80	15x3 to 130x50
Prodec 316L/4404	6-32	8-70	8-80	15x3 to 130x50

Standards	Comment
EN 10088-3	-
EN 10088-5	-
EN 10272	-
AD 2000 merckblatt W0, W2, W10	-
NACE MR0103, MR0175	-
PED 2014/68/EU	-

All material is certified according to EN 10204/3.1.

Hot rolled bar

The hot rolled product has a slightly higher elongation compared to a cold drawn product. Nordic Bar Stock offers two different surface conditions; peeled or pickled in three different shapes; round square and flat, all to meet your requirements. Length are approximately 6 m and bundle weight is depending on size, varying between 0.5 to 2.2 tonnes.

Hot rolled	ISO 286-2, k13, EN 10060	EN 10059	EN 10058
	●	■	—
Core 304/4301	70–170	10–70	15x3 to 130x50
Core 304L/4307	70–170	10–70	15x3 to 130x50
Supra 316/4401	70–170	10–70	15x3 to 130x50
Supra 316L/4404	70–170	10–70	15x3 to 130x50
Prodec 304/4301	70–170	10–70	15x3 to 130x50
Prodec 304L/4307	70–170	10–70	15x3 to 130x50
Prodec 316/4401	70–170	10–70	15x3 to 130x50
Prodec 316L/4404	70–170	10–70	15x3 to 130x50

Standards	Comment
EN 10088-3	–
EN 10088-5	–
EN 10272	–
AD 2000 merkbblatt W0, W2, W10	–
ASTM A276, A479	for larger dimensions
NACE MRO103, MRO175	–
PED 2014/68/EU	–

All material is certified according to EN 10204/3.1.

Chemical composition

General purpose standard bars

Steel designation					Typical chemical composition, % by wt.				
Outokumpu	EN	ASTM	UNS	ISO	C	Cr	Ni	Mo	Products
Core 304/4301	1.4301	304	S30400	4301-304-00-I	0.04	18.1	8.1	-	
Core 304L/4307	1.4307	304L	S30403	4307-304-03-I	0.02	18.1	8.1	-	
Supra 316/4401	1.4401	316	S31600	4401-316-00-I	0.04	17.2	10.1	2.1	
Supra 316L/4404	1.4404	316L	S31603	4404-316-03-I	0.02	17.2	10.1	2.1	

Prodec for superior machinability

Steel designation					Typical chemical composition, % by wt.				
Outokumpu	EN	ASTM	UNS	ISO	C	Cr	Ni	Mo	Products
Prodec 304/4301	1.4301	304	S30400	4301-304-00-I	0.04	18.1	8.1	-	
Prodec 304L/4307	1.4307	304L	S30403	4307-304-03-I	0.02	18.1	8.1	-	
Prodec 316/4401	1.4401	316	S31600	4401-316-00-I	0.04	17.2	10.1	2.1	
Prodec 316L/4404	1.4404	316L	S31603	4404-316-03-I	0.02	17.2	10.1	2.1	

Outokumpu grades Core 304/4301 and Core 304L/4307 are dual certified.

Mechanical properties

General purpose standard bars

Steel designation	Product form	Yield strength $R_{p0.2}$ (MPa)	Tensile strength R_m (MPa)	Elongation A_5	Hardness (HBW) max.
Outokumpu					
Core 304/4301	Hot rolled bar	175	500–700	45/35 ²⁾	215
	Cold drawn bar	400/380/175 ¹⁾	600–930/600–930/500–830	25/25/30	-
Core 304L/4307	Hot rolled bar	175	500–700	45/35 ²⁾	215
	Cold drawn bar	400/380/175 ¹⁾	600–930/600–930/500–830	25/25/30	-
Supra 316/4401	Hot rolled bar	200	500–700	40/30 ²⁾	215
	Cold drawn bar	400/380/200	600–930/580–930/500–830	25/25/30	-
Supra 316L/4404	Hot rolled bar	200	500–700	40/30 ²⁾	215
	Cold drawn bar	400/380/200	600–930/580–930/500–830	25/25/30	-

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Core 304L/4307	Hot rolled bar	175	500–700	45/35 ²⁾	215
	Cold drawn bar	400/380/175 ¹⁾	600–930/600–930/500–830	25/25/30	-
Supra 316/4401	Hot rolled bar	200	500–700	40/30 ²⁾	215
	Cold drawn bar	400/380/200	600–930/580–930/500–830	25/25/30	-
Supra 316L/4404	Hot rolled bar	200	500–700	40/30 ²⁾	215
	Cold drawn bar	400/380/200	600–930/580–930/500–830	25/25/30	-

¹⁾ $d \leq 10\text{mm}/10 < d \leq 16/16 < d \leq 40$

²⁾ $d \leq 160$ long/ $160 < d \leq 250$ trans

Outokumpu grades Core 304/4301 and Core 304L/4307 are dual certified.



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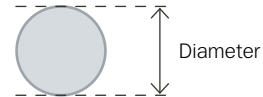
We offer competitive prices, short lead times and high quality. The lead times are between mill direct and distributor services.



Tolerances

Round peeled bars, ISO 286-2 k13

Diameter, mm	Tolerance
18- <30	-0/+0.33
30- <50	-0/+0.39
50- <80	-0/+0.46
80- <120	-0/+0.54
120- <180	-0/+0.63
180- <250	-0/+0.72



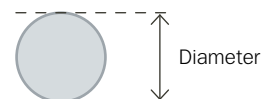
Cold drawn square and hexagon bars, ISO 286-2 h11

Dimension, mm	Tolerance
>6-10	-0.09/+0
>10-18	-0.11/+0
>18-30	-0.13/0
>30-50	-0.16/0



Cold drawn round bars, ISO 286-2 h9

Diameter, mm	Tolerance
>6-10	-0.036/+0
>10-18	-0.043/+0
>18-30	-0.052/+0
>30-50	-0.062/0

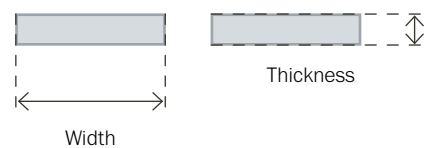


Cold drawn flat bars, ISO 286-2 h11

Width, mm	Tolerance
≤18	-0.11/+0
>18 ≤30	-0.13/+0
>30 ≤50	-0.16/+0
>50 ≤80	-0.19/+0
>80 ≤100	-0.22/+0
>100 ≤150	-0.50/+0.50

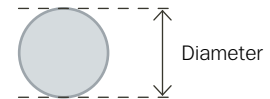
Cold drawn flat bars, ISO 286-2 h11

Thickness	Tolerance
>3 ≤6	-0.075
>6 ≤10	-0.09
>10 ≤18	-0.11
>18 ≤30	-0.13
>30 ≤50	-0.16

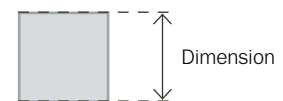




Hot rolled round bars, EN 10060	
Diameter, mm	Tolerance
10-15	±0.4
16-25	±0.5
26-35	±0.6
36-50	±0.8
52-80	±1.0
85-100	±1.3
105-120	±1.5
125-160	±2
165-200	±2.5

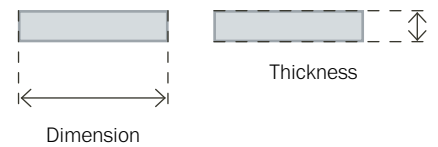


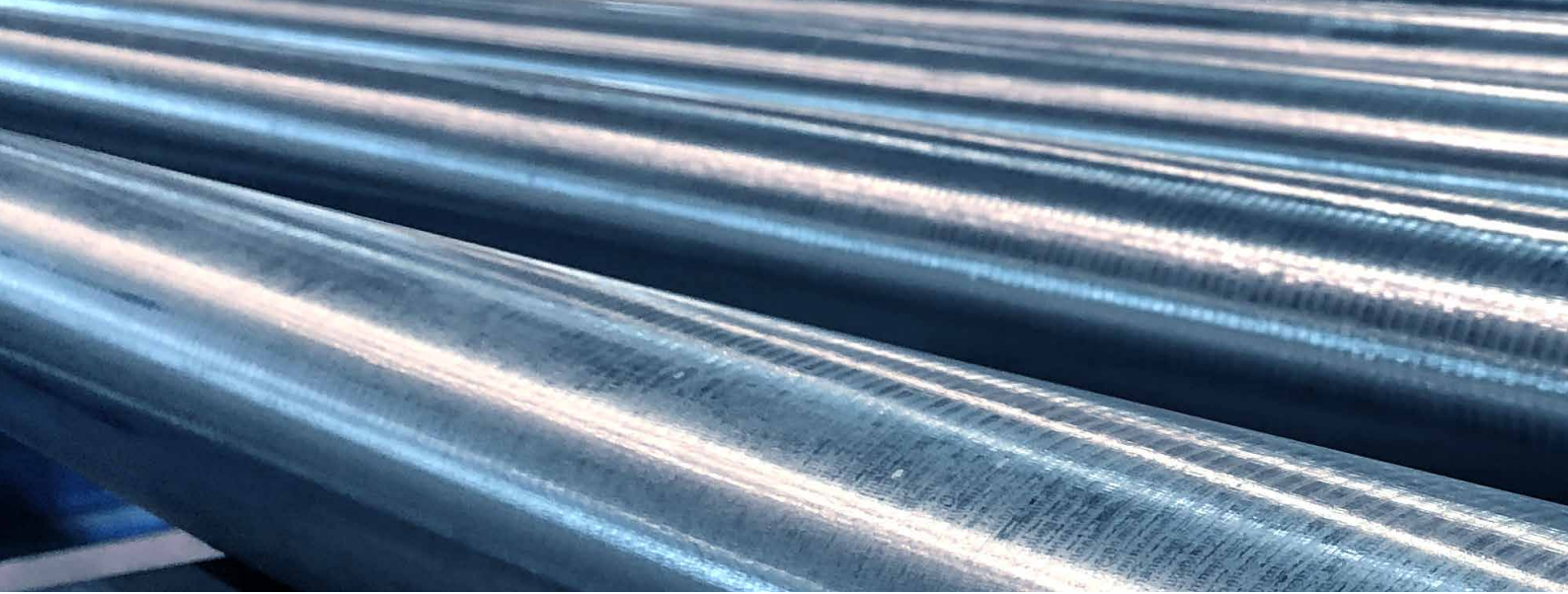
Hot rolled square bars, EN 10059	
Dimension, mm	Tolerance
8-14	±0.4
15-25	±0.5
26-35	±0.6
40-50	±0.8
55-90	±1.0



Hot rolled flat bars, EN 10058	
Dimension, mm	Tolerance
10-40	±0.75
>40-80	±1
>80-100	±1.5
>100-120	±2
>120	±2.5

Hot rolled flat bars, EN 10058	
Thickness	Tolerance
-20	±0.5
>20-40	±1
>40-80	±1.5



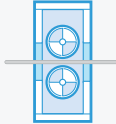


End-to-end production platform

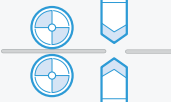
Hot rolled & peeled



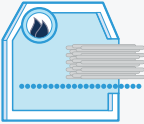
Heating



Rolling

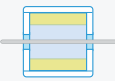


Cutting

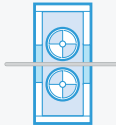


Heat treatment

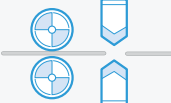
Hot rolled, pickled



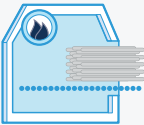
Heating



Rolling

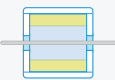


Cutting

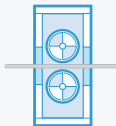


Heat treatment

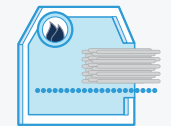
Cold drawn



Heating



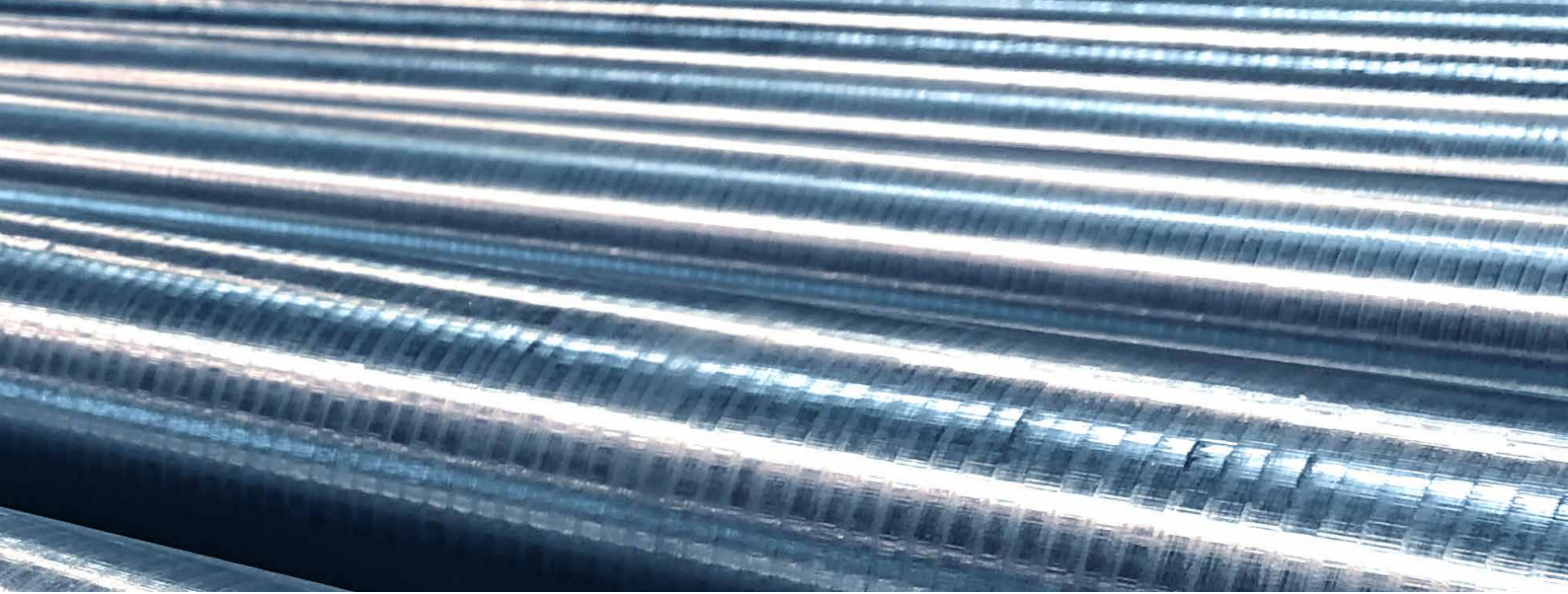
Rolling



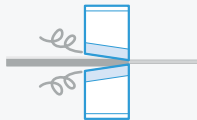
Heat treatment



Pickling



Straightening

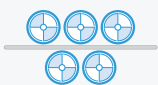


Peeling

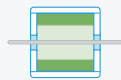


Visual inspection and packing

Degerfors Long Products hot rolling mill in Degerfors, Sweden is a global supplier of high quality hot rolled and peeled bars as well as rolled and forged billets in a wide range of stainless steel grades.



Straightening

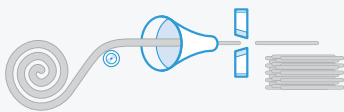


Pickling



Visual inspection and packing

Böllinghaus Steel is located in Hilden, Germany and has its own production facilities in Portugal. The portfolio comprises of hot rolled and pickled as well as cold drawn bars in various forms and lengths manufactured of stainless steel in various grades.



Cold drawing



Visual inspection and packing

Sheffield Stainless Rod & Bar (SSRB) in Sheffield, UK is a leading producer of hexagon and square cold drawn bars and Prodec superior machinability bars in small diameters.

Working towards a world that lasts forever.

We work with our customers and partners to create long lasting solutions for the tools of modern life and the world's most critical problems: clean energy, clean water, and efficient infrastructure. Because we believe in a world that lasts forever.

Degerfors Long Products

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