WALSIN PRECISION TECHNOLOGY SDN BHD

Precision Rolled Stainless Steel Strip Solutions

Comprehensive product specifications, mechanical properties, precise tolerance controls, and surface finishes engineered to custom requirements.

TECHNICAL SPECIFICATIONS

THICKNESS RANGE
0.020mm – 1.50mm

WIDTH RANGE
10mm – 420mm

STANDARDS
JIS, EN, ASTM

Product Outline- Scope

SCOPE: MANUFACTURING AND SALES OF STAINLESS STEEL AND ALLOY STEEL

Austenitic Series

Grade 301, 304, 304L, 305, 316, 316L, 321

High formability, corrosion resistance, and high tensile options.

Ferritic Series

Grade 430

Good corrosion resistance, posses magnetic properties.

Martensitic & Specialty

Grades 410, 420J2, JFE20-5USR

High hardness through heat treatment and extreme heat resistance.

Available Tempers: **OH, 1/4H, 1/2H, 3/4H, H, EH, SEH**

Custom Specifications Available Upon Request

Product Outline - Chemical Composition

Composition (%)

Grade	C	Mn	P	S	Si	Cr	Ni	Mo	Other Element
301	≤ 0.15	≤ 2.00	≤ 0.045	≤ 0.030	≤ 1.00	16.00–18.00	6.00–8.00	—	—
304	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.030	≤ 1.00	18.00–20.00	8.00–10.50	—	—
304L	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.030	≤ 0.75	18.00–20.00	8.00–12.00	—	N ≤ 0.10
316L	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.030	≤ 0.75	16.00–18.00	10.00–14.00	2.00–3.00	N ≤ 0.10
321	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.030	≤ 0.75	17.00–19.00	9.00–12.00	—	Ti ≤ 0.70 max
305	≤ 0.06	≤ 2.00	≤ 0.045	≤ 0.015	≤ 1.00	17.00–19.00	11.00–13.00	—	N ≤ 0.10
430	≤ 0.12	≤ 1.00	≤ 0.040	≤ 0.030	≤ 0.75	16.00–18.00	—	—	—
420J2	0.26–0.40	≤ 1.00	≤ 0.040	≤ 0.030	≤ 1.00	12.00–14.00	≤ 0.60	—	—
JFE 20-5USR	≤ 0.015	≤ 1.00	—	—	≤ 1.00	19.00–21.00	—	—	Al 5–6% | La 0.06–0.12%

Product Outline- Thickness

unit: mm

Thickness Range	JIS	WPT Standard	WPT Precise
0.01 ≤ t< 0.05	-	±0.005	±0.003
0.05 ≤ t< 0.10	-	±0.005	±0.003
0.10 ≤ t< 0.15	±0.020	±0.008	±0.004
0.15 ≤ t< 0.20	±0.030	±0.010	±0.005
0.20 ≤ t< 0.25	±0.030	±0.012	±0.008
0.25 ≤ t< 0.30	±0.035	±0.020	±0.010
0.30 ≤ t< 0.40	±0.035	±0.020	±0.010
0.40 ≤ t< 0.50	±0.040	±0.025	±0.015
0.50 ≤ t< 0.60	±0.040	±0.025	±0.015
0.60 ≤ t< 0.80	±0.045	±0.030	±0.020
0.80 ≤ t< 1.00	±0.050	±0.035	±0.025
1.00 ≤ t< 1.20	±0.050	±0.040	±0.030
1.20 ≤ t< 1.50	±0.060	±0.040	±0.030
Special thickness tolerance requirement may be negotiated.			

Product Outline- Mechanical Properties

Grade	Temper	Hardness (HV)	Tensile (MPa)	Yield (MPa)	Elongation (%)
301	1/2H	310 min.	930 min.	510 min.	10 min.
301	3/4H	370 min.	1130 min.	745 min.	5 min.
301	H	430 min.	1320 min.	1030 min.	-
301	EH	490 min.	1570 min.	1275 min.	-
301	SEH	530 min.	1740 min.	1450 min.	
304	1/2H	250 min.	780 min.	470 min.	6 min.
304	3/4H	310 min.	930 min.	665 min.	3 min.
304	H	370 min.	1130 min.	880 min.	-
430	O	200 max.	420 min.	205 min.	22 min.
420J2	O	247 max.	540-740	225 min.	18 min.

Note: Exact Vickers Hardness (HV) and tensile ranges are tailored per customer requirement.

Product Outline- CSP Mechanical Properties

Grade	1/2H (HV250-310)	3/4H (HV310-370)	FH (HV370-430)		
304	0.05mm- 1.50mm	0.05mm – 1.30mm	0.025mm- 1.00mm		
Grade	**1/2H (HV310-370)**	**3/4H (HV370-430)**	**FH (HV430-490)**	**EH (HV490-530)**	**SEH (HV530-630)**
301	0.05mm- 1.50mm	0.05mm – 1.50(*)mm	0.05mm- 1.30(*)mm	0.03mm- 1.00(*)mm	0.03mm- 0.65(*)mm

CSP: Cold Rolled Stainless Steel for Spring.
(*): Available with special raw material control.
Special mechanical properties range may be accepted upon discussion.
For grade not stated in table above, customize dimension and mechanical properties are available.

Note: Exact Vickers Hardness (HV) and tensile ranges are tailored per customer requirement.

Product Outline- Width Tolerances

Width Tolerance (mm) ↔

JIS G 4313

Thickness (mm)	W < 80	80 ≤ W < 160	160 ≤ W < 250	250 ≤ W < 420
T < 0.60	± 0.10	± 0.15	± 0.20	± 0.25
0.60 ≤ T < 1.00	± 0.15	± 0.20	± 0.25	± 0.25
1.00 ≤ T < 1.60	± 0.20	± 0.20	± 0.30	± 0.30

- Custom tight width tolerances engineered for high-precision application are tailored per customer requirement.

Product Outline- Flatness

JIS G 4313

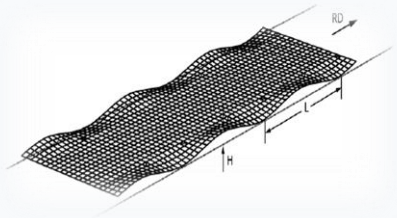
Width (mm)	Thickness (mm)	Maximum deviation on flatness (mm)	
		1/2H	3/4H
Width < 80	0.10 ≤ t < 1.60	4	5
80 ≤ Width < 250	0.10 ≤ t < 1.60	6	6

MEASUREMENT TECHNIQUE

Measured on granite surface table using 1-meter sample strip with precision taper gauge inserted under peak wave.

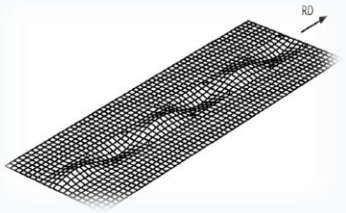
1 Edge Wave

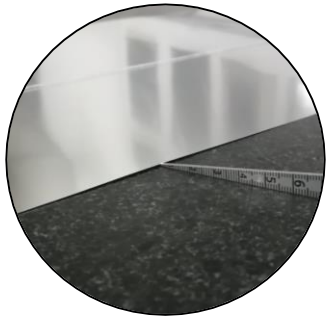
Occurs when the material length at the strip edge is longer than the central section along the rolling direction.

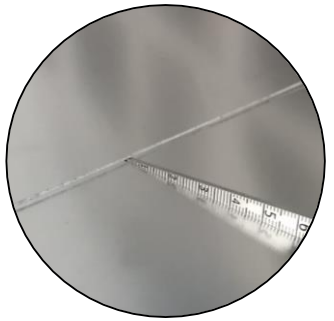


2 Center / Quarter Wave

Occurs when the material length in the middle section exceeds the edges during precision cold rolling.
Width less 80mm excluded.

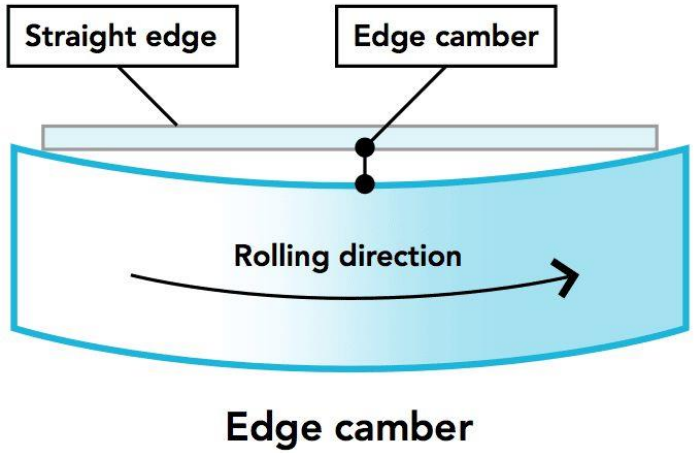






- WPT can control tighter flatness based on customer requirement.

Product Outline- Flatness



Edge camber

Camber (per 1 meter sample)

Strip Width (mm)	JIS Standard Max Camber Deviation (mm)	WPT Standard Max Camber Deviation (mm)
10 ≤ W < 20	8.0	2.0
20 ≤ W < 40	6.0	2.0
40 ≤ W < 60	3.0	1.5
60 ≤ W < 80	3.0	1.5
W ≥ 80	1.0	1.0

3 Camber

Camber is defined as the maximum curvature deviation along a 1000mm straight edge measurement.

MEASUREMENT TECHNIQUE

Measured on camber table using 1-meter sample strip with measuring scale up to 0.5mm.

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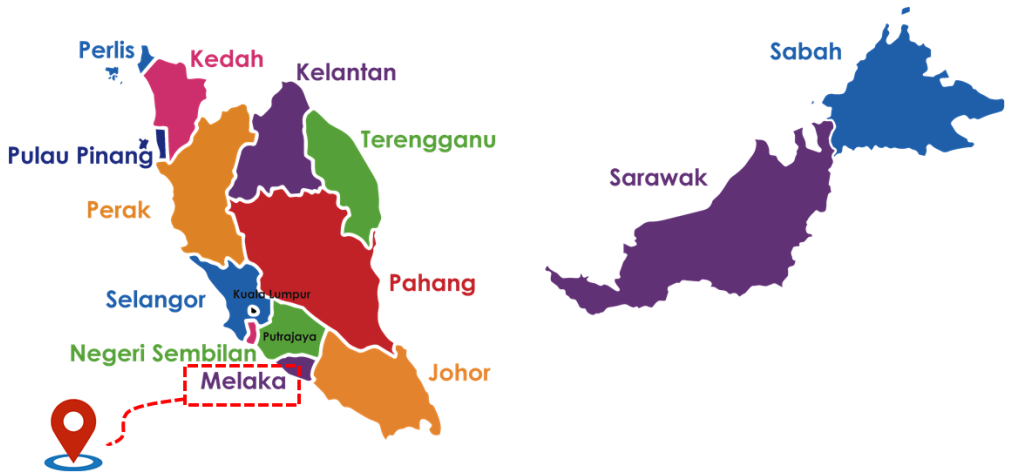
GLOBAL STAINLESS SUPPLY

Tailor-Made To Your Exact Requirements

Contact our sales team today to request custom slitting widths,
tight thickness tolerances, or specialized tempers.



Ayer Keroh, Melaka, Malaysia

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