

中鋼集團



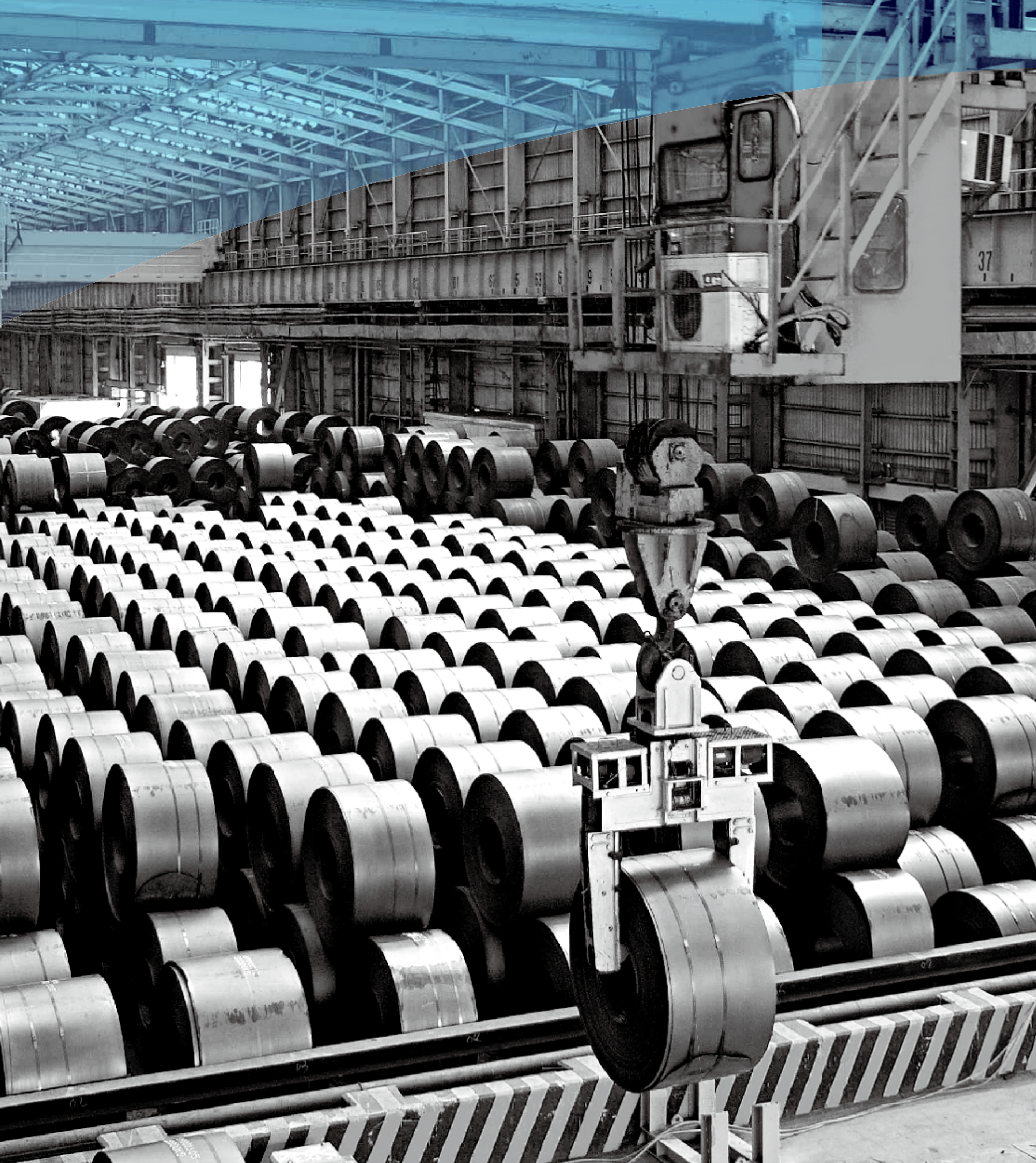
member of CSC Group

Steel Coil Products

鋼捲產品型錄



中鴻銹鐵股份有限公司
CHUNG HUNG STEEL CORPORATION



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中鴻願景

The Vision of
Chung Hung Steel Corporation

中鴻堅持正派經營，努力打造成為一個持續發展、值得信賴、樂於交往的鋼鐵公司。

We persist in operating uprightly and devote ourselves to sustainable development and winning buyer's trust and friendship.



中鴻發展歷程

中鴻鋼鐵股份有限公司（原名燁隆企業股份有限公司，2004 年 7 月 14 日正式更名，以下簡稱中鴻）成立於 1983 年 9 月，基於國內鋼鐵上下游整合，中鴻於 1999 年底與中鋼公司策略聯盟，2000 年正式成為中鋼集團一員。

業務簡介

中鴻主要產品有熱軋鋼捲、酸洗塗油鋼捲、精衝成形鋼捲、冷軋全硬鋼捲、冷軋調質鋼捲、鍍鋅鋼捲、碳鋼鋼管、鍍鋅鋼管、PE 包覆鋼管、API 輸油管、API 石油用管。產品銷售以供應國內為優先，產品廣泛運用在五金、建材、汽車、家電、運動器材、鋼製傢俱、能源工業等眾多產業。

Development of Chung Hung Steel Corporation

Chung Hung Steel Corporation (originally named Yieh Loong Enterprise Co., Ltd., was renamed on July 14th, 2004, known as “CHS” for short) was established in September 1983. For observing the integration of upstream and downstream steel companies in Taiwan, CHS formed a strategic alliance with CSC at the end of 1999, and officially became a member of the CSC Group in 2000.

Brief Introduction of Operation

CHS's main carbon products include hot-rolled steel coils, fine blanking and formability coils, cold-rolled full hard steel coils, cold-rolled tempered steel coils, galvanized steel coils, carbon steel pipes, galvanized steel pipes, PE coated steel pipes, API line pipes and API OCTG pipes for casing and tubing. The products are widely used to manufacture hardware, building materials, cars, household electric appliances, sport equipment, steel furniture, energy industry and so on. They are primarily prioritized for domestic sales.

熱軋廠簡介

Hot Rolling Mill Profile



本廠建廠自 1995 年 5 月 22 日動工歷時不到二年，於 1997 年 4 月 28 日產出第一粒鋼捲，創下當時同類鋼廠建廠時間最短的紀錄。主要產線熱軋線均係日本中外爐、IHI 等國際一流供應商所製最先進的設備，具有製程短、均溫節能佳及周全防治污染設施等精緻化高量產、低成本特性，並配有精密自動化控制系統，可精確生產客戶所需尺寸，生產高品質熱軋產品。熱軋線全長 320M，主要設備包含加熱爐兩座、往復式粗軋機、盤捲箱及 6 座精軋機組；設計年產能為 240 萬噸。另調質線設備為日本 UBE 製造，除調質外，尚可視需求進行整平與分切作業，生產尺寸最薄可達 1.2mm 厚度，設計年產能 120 萬噸。



熱軋線與調質線可分別生產厚度 1.2 ~ 12.7mm 及 1.2 ~ 6.0mm，寬度 900 ~ 1560mm 之各種優良品質的熱軋粗鋼捲及熱軋調質鋼捲。本廠於 2002 年分別通過 ISO 9001、14001 及 OHSAS 18001 驗證，所生產之熱軋鋼捲除可做為生產冷軋鋼捲及鍍鋅鋼捲之原料外，更可廣泛用於五金、貨櫃、汽車、家電等零件加工與結構用及建築用管件。

■ The Hot Rolling Mill of Chung Hung commenced its construction on May 22nd, 1995, and was completed in less than two years with the first coil being produced on April 28, 1997. We set a new record then for the shortest construction time of similar plants in the steel industry. This mill is equipped with the most cutting-edge facilities supplied by the first-class suppliers in the world, Ishikawajima-Harima Heavy Industries and Chugai Ro of Japan. It operates with the accurate automatic control system, which has the characteristics of elaborate high production capacity and low costs with short manufacturing process, uniform temperature in slab heating, energy conservation, and pollution prevention facilities, so as to precisely produce the sizes required by customers and hot rolled coils with high quality. The hot rolling line is 320 meters long, whose main equipments consist of two reheating furnaces, one reversing roughing mill, one coil box and one 4-high 6 stand finishing mill. Its annual designed production capacity is 2.4 million tons, which may produce all kinds of hot rolled bands and hot rolled temper grade coils with excellent quality and with the thickness of 1.2 ~ 12.7mm and width of 900 ~ 1560 mm.

Moreover, the Skin Pass Mill is supplied by UBE Industries of Japan; apart from tempering, it is capable of processing the leveling and dividing of coils to the thinnest extent as 1.2 mm in thickness with annual design production capacity of 1.2 million tons.

This Hot Rolling Department has been respectively accredited with ISO 9001, 14001 and OHSAS 18001 certificates in 2002, and hot rolled coils produced accordingly are materials widely applied for producing hardware, transportation container, automobile body plates, home appliances, structural pipes, as well as construction pipes in addition to producing cold rolled coils and galvanized materials.

冷軋廠簡介

Cold Rolling Mill Profile

冷軋廠於 1987 年建廠完成，主要產線設備有全長 68M 的酸洗線、六重式往復式軋延機 (6Hi UC-Mill)、氫氣退火爐、調質精整設備等。設計年產能 45 萬噸，可生產厚度 0.15 ~ 2.35mm，寬度 850 ~ 1,250mm 之冷軋全硬板及調質精整鋼捲。因長期致力技術與品質之提升，產品已具一流水準，於 1994 年 9 月更成為國內冷軋鋼鐵廠首家榮獲 ISO 9002 品質驗證通過之工廠，並於 2002 年 10 月轉版成功，取得 2000 年版 ISO 9001 驗證，另亦通過 ISO 14001 及 OHSAS 18001 驗證。

本廠鋼品表面粗糙度可分為鈍面及亮面，因機械性質及加工性能良好，兼具厚度均勻、表面平坦、加工成型性佳之優點，充份發揮鋼鐵材料的極致；而經濟、耐用、成型容易更是本廠產品之所以深受歡迎的原因，用途舉凡一般文具類 (釘書機、打孔機)；家用電器類 (烤箱、烤麵包機) 辦公傢俱類 (資料櫃、桌椅) 運動器材類 (跑步機、健身器) 及建築材料 (浪板、鐵捲門) …到目前最熱門的電腦外殼等，都是由冷軋鋼板加工成型，表面再經鍍鋅或烤漆而成。



■ The Cold Rolling Mill is established in 1987 whose main production equipments are the pickling line with 68 meters long, 6Hi UC-Mill, batch annealing, and tempered equipments. Its annual design production capacity is 450 thousand tons, which may produce cold rolled full hard plates and tempered coils with the thickness of 0.15 ~ 2.35mm and width of 850 ~ 1250mm. Due to the long-term dedication to the promotion of technology and quality, products have reached the first-class standards. In September 1994, it has become the first domestic Cold Rolling Department accredited with ISO 9002 certificate, and has made successfully conversion in October 2002 and was accredited with ISO 9001 certificate of the 2000 version; moreover, it is also accredited with ISO 14001 and OHSAS 18001 certificates.



The roughness of this mill's cold rolled products has dull finish and bright finish. Due to the excellent mechanic properties and easy processing with the merits of average thickness, flat surface, and easy forming, such products elaborate the steel materials to the utmost extent. This mill's cold rolled products are widely welcome because of their attributes of being economical, durable, and easy forming. They are suitable materials for stationery (staples and hole punchers), home appliances (oven and toaster), office furniture (information cabinets, tables, and chairs), sports equipment (treadmill and fitness appliances), construction materials (wave board and iron winding door) and the currently widely popular computer cases, which are all formed from cold rolled plates and topped with galvanization and paint coating.

酸鍍廠簡介

Pickling and Galvanizing Mill Profile



酸鍍廠於 1997 年建廠完成，並於 2018 年 6 月 1 日併入中鴻，主要產線設備有酸洗線、鍍鋅線、全氫氣式退火爐、精整調質機、張力整平線及自動包裝線等設備，設備主要由義大利 Danieli 及美國 GE 所提供。

連續酸洗線年產能 60 萬噸，主要設備有 Taylor Winfield 鐸接機、三段式鋼帶積料設備、銹皮破碎及張力整平機 (Scale Breaker)、酸洗槽及清洗槽、切邊機、雷射自動厚度偵測器、自動寬度偵測器、GFG Peabody 靜電式塗油機及收捲機等，可生產厚度 1.35 ~

6.0mm，寬度 750 ~ 1,537mm 之熱軋酸洗 (塗油) 鋼捲，結合下游製程全氫式退火爐、精整調質及張力整平設備可生產球化材及精衝成形材。

連續鍍鋅線年產能 30 萬噸，主要設備有 EFCO 還原式加熱爐、AJAX 鋅槽、KOHLE 可調式空氣風刀系統及張力整平機等，可生產厚度 0.7 ~ 5.0mm，寬度 800 ~ 1,542mm 之鍍鋅鋼捲。本廠長期致力於技術與品質之提升，2010 年 12 月通過 ISO 9001 系統驗證，2017 年 5 月通過 ISO/TS16949 汽車供應鏈品質管理系統驗證，2014 年通過 OHSAS 18001 環安衛管理系統驗證。

本廠鋼品具優良的表面品質，機械性質、加工性能良好，兼具厚度均勻、表面平坦、加工成型性佳之優點，充份發揮鋼鐵材料的極致；而經濟、耐用、成型容易，可廣泛用於五金、貨櫃、汽車、家電等零件加工與結構用及建築用管件。

The Pickling & Galvanizing Mill was established in 1997, and merged into Chung Hung Steel on Jun 1st 2018. The main production equipment of our production line include pickling line, galvanizing line, tight coil annealing, skin pass mill, tension leveler and automatic packing line; our production equipment are mainly supplied by Danieli (Italy) and GE (U.S.A).



The continuous pickling line has an annual capacity of 600,000 tons, and the main production line equipment include: Taylor Winfield welder, loop car and roll blade mechanism, tension leveler (scale breaker), pickling and rinsing section, side trimmer, automatic laser thickness gauge, automatic width gauge, GFG Peabody electrostatic oiler and recoiler. It is able to produce hot-rolled pickled (oiled) coil with thickness of 1.35~6.0mm and width of 750~1,537mm, thus combined together with tight coil annealing, skin pass mill and tension leveler as the downstream production process, we can then produce spheroidizing material and fine blanking & formability steel products.

The continuous galvanizing line has an annual capacity of 300,000 tons, and the main production line equipment includes EFCO non-oxidizing furnace, AJAX zinc pot, KOHLER adjustable air knife system and tension leveler facility. It is able to produce galvanized coil with thickness of 0.7~5.0mm and width of 800~1,542mm.

Due to our long term devotion towards technical and quality enhancement, we have been accredited with ISO 9001 in December 2010, ISO/TS16949 in May 2017 and OHSAS 18001 in 2014.

Due to excellent surface quality, mechanic properties and easy processing with the merits of even thickness, flat surface and easy in formation; such products elaborate the steel materials to the utmost extent. Also, they are widely welcome because of their attribution of being economical, durable and easy in formation, thus make our products the perfect material for hardware, transportation container, automobile body plates, home appliances, structural pipes and construction pipes.

酸鍍廠簡介

Pickling and Galvanizing Mill Profile



■ 精衝成形材簡介

Fine Blanking & Formability Steel Products Introduction

精密衝壓除需要精準的模具條件外，尚得多功能材料配合，即精衝成形鋼。此類鋼材其化學成分範圍寬廣，由低碳鋼到中高碳鋼，並涵蓋不同組成的低合金鋼，此外講求厚度精度與優良成形特性，用於高精度要求的產品製造，如汽車變速箱元件、車廂安全性組件、鎖件、座椅調整器、煞車系統、以及自動化機械等。亦可應用於各種工業製品，諸如硬碟機與電子零件、建築工業的窗構門鎖、鉸鏈設備、齒輪盤等等。本材料用於精密衝壓時具有平整的切邊，可省略後續的處理作業。不僅可提升產品價值，並能有效簡化製造流程。

Fine Blanking & Formability Steel (FBFS) has wide range of chemical compositions from low carbon steel to Middle carbon steel or High carbon steel and various low-alloyed steels. Beyond the precise conditions of die in following working, when the material produced as steel sheet, the process must be capable to control accurate thickness and good formability, then introduced to versatile fine-blanking applications, such as automobile transmission components, safety critical automotive components, locking systems, interior seat adjusters, braking systems, automated machinery parts and also electronic component categories, door locks etc..The materials can be fine-blanked with smooth cut edges, so debarring can be eliminated. Manufacturers can obtain products with value-added and cost down.



機車啟動馬達零件 S45C
Motorcycle starter component S45C



座椅後傾齒板 SCM415
Recliner component SCM415

■ 功能特性

Material Features

精密衝壓在鋼材本身厚度精度、材質組織等都要配套，使成品具有精準尺寸以及加工性優越的特性。對於高精密度的特殊性能零件或元件，精衝成形鋼屢屢成為考慮成本與品質優化的選項。在大部份鋼材厚度落於熱軋產品範圍，為了達到精密衝壓的要求，鋼材要經過特殊處理。其重要品質特性有以下三點：

1. **精準厚度控制**：因應精密衝壓的模具要求，使得原材料厚度公差嚴苛，若無厚度控制軋延，很難達成。
2. **成形性**：要滿足成品的功能，經常需要碳當量高的鋼種，而其成形加工困難，故碳化物需經球化熱處理以提高成形性。
3. **熱處理性**：因鋼材化學成分的設計，使成品在加工成形後熱處理可得到相當的硬化能。

Although the materials usually dropped in hot rolled gauge range, however they need more function advantages than cold rolled steel.

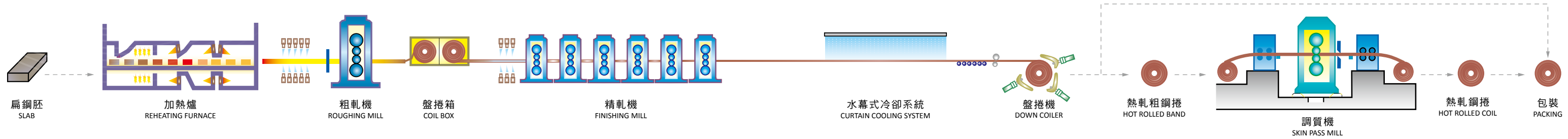
The main quality characteristics includes following:

1. **Precise thickness control**: can meet the requirement of the die set-up in Fine Blanking operation. The key factor is the achievement within several hundredth mm gauge difference either in rolling or transverse direction in the sheet, no matter what sheet gauge is.
2. **Formability**: steel grades with high carbon equivalent are difficult in forming process, but the work piece need the workability to be a high quality product, and then the steel matrix with good spheroidized carbide can contribute the feature.
3. **Hardenability**: because of the carbon equivalent of steel, the material has sufficient hardenability if heat treatment after mechanical working provided.

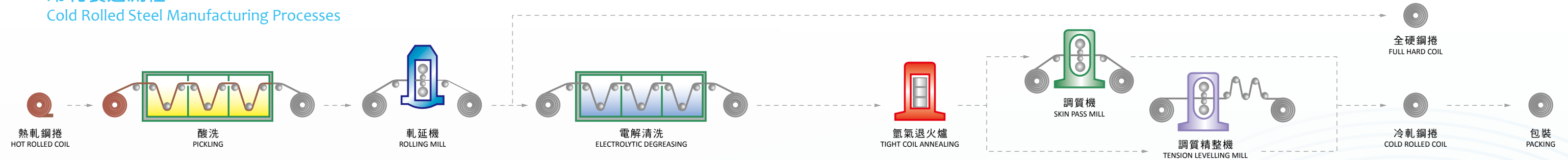
生產流程

Manufacturing Processes

■ 熱軋製造流程 Hot Rolled Steel Manufacturing Processes



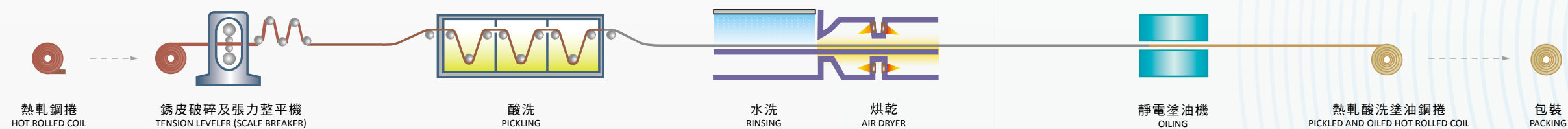
■ 冷軋製造流程 Cold Rolled Steel Manufacturing Processes



■ 熱浸鍍鋅製造流程 Hot Dipped Galvanized Steel Manufacturing Processes



■ 熱軋酸洗塗油製造流程 Pickled and Oiled Hot Rolled Steel Manufacturing Processes



熱軋產品接單規範

Available Specification and Dimension for Hot Rolled Products

規格 Specification							
產品特性 Product Property	鋼種 \ 用途 Steel Grade \ Application						
	冷軋用途 Re-rolling Quality	一般成型 Forming	一般鋼管 Tube and Pipe	石油用管 Petroleum Pipe	結構用鋼 Structure Quality	貨櫃用鋼 Container	汽車用鋼 Automobile
300 N/mm ² 一般品級 Commercial Quality	CH SPB T3-BA	ASTM A1011 CS A	JIS G3132 SPHT1	—	—	—	—
	CH SPB T3-CA	ASTM A1011 CS B	—	—	—	—	—
	CH SPB T4-CA	EN 10111 DD11	—	—	—	—	—
	SAE 1006	JIS G3131 SPHC	—	—	—	—	—
	SAE 1008	—	—	—	—	—	—
	—	MS 1705 SPHC	MS 1768 SPHT1	—	—	—	—
300 N/mm ² 沖軋品級 Drawing Quality	CH 1002	EN 10111 DD13	—	—	—	—	—
	QS7-MT4-037 CH 1002	—	—	—	—	—	—
	CH 1006B	JIS G3131 SPHD	—	—	—	—	—
300 N/mm ² 極低碳鋼 Extra Low Carbon Steel	CH 1001 (CH M1005)	—	—	—	—	—	—
300 N/mm ² 花紋鋼捲 Checkered Plate	—	CH FPC	—	—	—	—	—
350 N/mm ²	SAE 1010	—	JIS G3132 SPHT2	—	ASTM A1011 SS Gr.33	—	—
	SAE 1012	—	—	—	EN 10025-2 S235JR	—	—
	—	—	—	—	EN 10025-2 S235J0	—	—
	—	—	—	—	MS EN 10025-2 S235JR	—	—
400 N/mm ²	SAE 1015	—	JIS G3132 SPHT3	API 5L Gr. B	ASTM A36	—	—
	SAE 1017	—	—	API 5L X42	ASTM A1011 SS Gr.36	—	—
	—	—	—	—	ASTM A1011 SS Gr.40	—	—
	—	—	—	—	EN 10025-2 S275J0	—	—
	—	—	—	—	JIS G3101 SS400	—	—
	—	—	—	API 5L X46	—	—	—
	—	—	—	—	—	—	JIS G3113 SAPH400
400 N/mm ² 花紋鋼捲 Checkered Plate	—	CH FPSS	—	—	—	—	—

訂單尺寸 Order Dimension						
產品特性 Product Property	寬度 (mm) \ 厚度 (mm) Width\ Thickness					
	870 ～ 969	970 ～ 1119	1120 ～ 1250	1251 ～ 1269	1270 ～ 1419	1420 ～ 1530
300 N/mm ² 一般品級 Commercial Quality	1.20 ～ 12.70				1.50 ～ 12.70	2.30 ～ 12.70
	1.20 ～ 6.00				—	—
300 N/mm ² 沖軋品級 Drawing Quality	1.60 ～ 12.70				3.50 ～ 12.70	—
					—	—
300 N/mm ² 極低碳鋼 Extra Low Carbon Steel	2.50 ～ 12.70				2.75 ～ 12.70	—
300 N/mm ² 花紋鋼捲 Checkered Plate	2.00 ～ 12.70				3.00 ～ 12.70	
350 N/mm ²	1.35 ～ 12.70		1.45 ～ 12.70		—	—
	1.40 ～ 6.00		1.45 ～ 6.00	—	—	—
400 N/mm ²	1.50 ～ 12.70		1.70 ～ 12.70		3.00 ～ 12.70	
	—	3.10 ～ 16.00	4.65 ～ 16.00			6.50 ～ 16.00
	1.60 ～ 8.00					—
400 N/mm ² 花紋鋼捲 Checkered Plate	2.70 ～ 12.70				3.00 ～ 12.70	

熱軋產品接單規範

Available Specification and Dimension for Hot Rolled Products

規格 Specification							
產品特性 Product Property	鋼種 \ 用途 Steel Grade\ Application						
	冷軋用途 Re-rolling Quality	一般成型 Forming	一般鋼管 Tube and Pipe	石油用管 Petroleum Pipe	結構用鋼 Structure Quality	貨櫃用鋼 Container	汽車用鋼 Automobile
450/500 N/mm ²	SAE 1019	JIS 4051 S20C	—	—	CSA G40.21 44W	—	—
	SAE 1020	—	—	—	EN 10025-2 S275JR	—	—
	SAE 1022	—	—	—	—	—	—
	—	—	—	—	MS EN 10025-2 S275JR	—	—
	—	—	—	—	—	—	JIS G3113 SAPH440
450/500 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	—	—	—	API 5CT J55	ASTM A1011 HSLAS Gr.45 Class 1	—	—
	—	—	—	API 5L X52	ASTM A1011 HSLAS Gr.50 Class 1	—	—
	—	—	—	—	ASTM A1011 HSLAS Gr.55 Class 1	—	—
	—	—	—	—	ASTM A572 Gr.50	—	—
	—	—	—	—	JIS G3101 SS490	—	—
	—	—	—	—	JIS G3106 SM490A	—	—
	—	—	—	—	EN 10025-2 S355 JR	—	JIS G3134 SPFH490
	—	—	—	—	EN 10025-2 S355 J0	—	EN10149-2 S355MC
500 N/mm ² 耐候鋼 Atmospheric Corrosion Resistance	—	—	—	—	—	JIS G3125 SPA-H	—
550/600 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	—	—	—	API 5L X60	—	—	—
	—	—	—	—	JIS G3101 SS540	—	—
	—	—	—	—	—	—	JIS G3134 SPFH590
	—	—	—	—	—	—	EN10149-2 S460MC
	—	—	—	—	—	—	SEW 092 QStE460 TM
600 N/mm ² 鎳鉻合金鋼 Mn-Cr Alloy Steel	—	EN 10084 16MnCr5	—	—	—	—	—
600 N/mm ² 中碳鋼 Medium Carbon Steel	SAE 1035	JIS 4051 S35C	—	—	—	—	—
	SAE 1045	JIS 4051 S45C	—	—	—	—	—
	SAE 1050	JIS 4051 S50C	—	—	—	—	—
	SAE 1055	JIS 4051 S55C	—	—	—	—	—

訂單尺寸 Order Dimension						
產品特性 Product Property	寬度 (mm) \ 厚度 (mm) Width\ Thickness					
	870 ~ 969	970 ~ 1119	1120 ~ 1250	1251 ~ 1269	1270 ~ 1419	1420 ~ 1530
450/500 N/mm ²	1.58 ~ 12.70		1.75 ~ 12.70		—	—
	1.58 ~ 12.70		1.75 ~ 12.70	—	—	—
450/500 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	1.60 ~ 8.00					—
	1.90 ~ 12.70				4.30 ~ 12.70	5.50 ~ 12.70
500 N/mm ² 耐候鋼 Atmospheric Corrosion Resistance	2.00 ~ 6.00				—	—
	1.50 ~ 12.70				—	—
550/600 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	6.00 ~ 12.50				—	—
	—	—	2.00 ~ 6.00		—	—
	—	—	2.45 ~ 6.00		—	—
	—	—	—		—	—
600 N/mm ² 鎳鉻合金鋼 Mn-Cr Alloy Steel	—	3.00 ~ 6.00	—	—	—	—
600 N/mm ² 中碳鋼 Medium Carbon Steel	1.50 ~ 6.00		3.20 ~ 6.00		—	—

熱軋酸洗塗油產品接單規範

Available Specification and Dimension for Hot Rolled Products, Pickled and Oiled

規格 Specification					
產品特性 Product Property	鋼種 \ 用途 Steel Grade \ Application				
	冷軋用途 Re-rolling Quality	一般成型 Forming	一般鋼管 Tube and Pipe	結構用鋼 Structure Quality	汽車用鋼 Automobile
300 N/mm ² 一般品級 Commercial Quality	SAE 1006	ASTM A1011 CS A	JIS G3132 SPHT1	—	—
	SAE 1008	ASTM A1011 CS B	—	—	—
	—	EN 10111 DD11	—	—	—
	—	JIS G3131 SPHC	—	—	—
	—	MS 1705 SPHC	MS 1768 SPHT1	—	—
300 N/mm ² 沖軋品級 Drawing Quality	CH 1002	EN 10111 DD13	—	—	—
	QS7-MT4-037 CH 1002	—	—	—	—
	CH 1006B	JIS G3131 SPHD	—	—	—
300 N/mm ² 極低碳鋼 Extra Low Carbon Steel	CH 1001 (CH M1005)	—	—	—	—
350 N/mm ²	SAE 1010	JIS G3132 SPHT2	—	ASTM A1011 SS Gr.33	—
	SAE 1012	—	—	EN 10025-2 S235JR	—
	—	—	—	EN 10025-2 S235J0	—
	—	—	—	MS EN 10025-2 S235JR	—
400 N/mm ²	SAE 1015	—	JIS G3132 SPHT3	ASTM A36	—
	SAE 1017	—	—	ASTM A1011 SS Gr.36	—
	—	—	—	ASTM A1011 SS Gr.40	—
	—	—	—	JIS G3101 SS400	—
	—	—	—	EN 10025-2 S275J0	—
	—	—	—		JIS G3113 SAPH400

訂單尺寸 Order Dimension			
產品特性 Product Property	寬度 (mm) \ 厚度 (mm) Width \ Thickness		
	870 ~ 969	970 ~ 1119	1120 ~ 1250
300 N/mm ² 一般品級 Commercial Quality	1.40 ~ 6.00		
300 N/mm ² 沖軋品級 Drawing Quality	1.60 ~ 6.00		
300 N/mm ² 極低碳鋼 Extra Low Carbon Steel	2.50 ~ 6.00		
350 N/mm ²	1.50 ~ 6.00		
400 N/mm ²	1.50 ~ 6.00		1.70 ~ 6.00
	1.60 ~ 6.00		

熱軋酸洗塗油產品接單規範

Available Specification and Dimension for Hot Rolled Products, Pickled and Oiled

規格 Specification					
產品特性 Product Property	鋼種 \ 用途 Steel Grade\ Application				
	冷軋用途 Re-rolling Quality	一般成型 Forming	一般鋼管 Tube and Pipe	結構用鋼 Structure Quality	汽車用鋼 Automobile
450/500 N/mm ²	SAE 1019	JIS 4051 S20C	—	CSA G40.21 44W	—
	SAE 1020	—	—	EN 10025-2 S275JR	—
	SAE 1022	—	—	MS EN 10025-2 S275JR	—
	—	—	—	—	IS G3113 SAPH440
450/500 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	—	—	—	ASTM A1011 HSLAS Gr.45 Class 1	—
	—	—	—	ASTM A1011 HSLAS Gr.50 Class 1	—
	—	—	—	ASTM A1011 HSLAS Gr.55 Class 1	—
	—	—	—	ASTM A572 Gr.50	—
	—	—	—	JIS G3101 SS490	—
	—	—	—	JIS G3106 SM490A	—
	—	—	—	EN 10025-2 S355 JR	JIS G3134 SPFH490
	—	—	—	EN 10025-2 S355 J0	EN10149-2 S355MC
550/600 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	—	—	—	JIS G3101 SS540	—
	—	—	—	—	JIS G3134 SPFH590
	—	—	—	—	EN10149-2 S460MC
	—	—	—	—	SEW 092 QStE460 TM
600 N/mm ² 錳鉻合金鋼 Mn-Cr Alloy Steel	—	EN 10084 16MnCr5	—	—	—
600 N/mm ² 中碳鋼 Medium Carbon Steel	—	JIS 4051 S35C	—	—	—
	—	JIS 4051 S45C	—	—	—
	—	JIS 4051 S50C	—	—	—
	—	JIS 4051 S55C	—	—	—

訂單尺寸 Order Dimension			
產品特性 Product Property	寬度 (mm) \ 厚度 (mm) Width\ Thickness		
	870 ～ 969	970 ～ 1119	1120 ～ 1250
450/500 N/mm ²	1.58 ～ 6.00		1.75 ～ 6.00
	1.60 ～ 6.00		
450/500 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	1.90 ～ 6.00		
	2.00 ～ 6.00		
550/600 N/mm ² 高強度低合 金鋼 High Strength Low Alloy	—		2.00 ～ 6.00
	—		2.45 ～ 6.00
600 N/mm ² 錳鉻合金鋼 Mn-Cr Alloy Steel	—	3.00 ～ 6.00	—
600 N/mm ² 中碳鋼 Medium Carbon Steel	1.50 ～ 6.00		3.20 ～ 6.00

冷軋產品接單規範

Available Specification and Dimension for Cold Rolled Products

產品特性 Product Property	品級 Temper Grade		規格 Steel Grade			硬度 (HRB) Hardness
			亮面 Bright	鈍面 Dull	規格代碼 Grade Code	
極低碳鋼 Extra Low Carbon Steel	沖壓品級 Drawing Quality		—	JIS G3141 SPCD-SD	JSD_DQ	42 Max.
低碳鋼 Low Carbon Steel	全硬板 Full Hard		JIS G3141 SPCC-1B	—	J1B	85 ~ 101
			MS 2651 : 2015 1B	—	M1B	85 ~ 101
			CH-CH1B	—	HCH1B	—
			CH-1B12C	—	H1B12C	85 Min.
			CH-1B17C	—	H1B17C	85 Min.
			CH-1B20C	—	H1B20C	85 Min.
			CH-1B22C	—	H1B22C	85 Min.
	全硬板 Full Hard	電鍍用途 Electroplate	JIS G3141 SPCC-1B	—	H1B_EP	85 ~ 101
		低硬度 Low Hardness	JIS G3141 SPCC-1B	—	H1B_H1	85 ~ 97
	1/2 硬板 1/2 Hard		JIS G3141 SPCC-2B	—	J2B	74 ~ 89
	1/4 硬板 1/4 Hard		JIS G3141 SPCC-4B	—	J4B	65 ~ 80
	1/8 硬板 1/8 Hard		JIS G3141 SPCC-8B	—	J8B	50 ~ 65
			—	JIS G3141 SPCC-8D	J8D	
			CH-8B12C	—	H8B12C	55 ~ 70
			—	CH-8D12C	H8D12C	
	退火料 Annealed		JIS G3141 SPCC-A	—	JA	57 Max.
	一般品級 (CQ1) Commercial Quality (CQ1)		ASTM A1008 CSA	—	AA1008B	45 ~ 65
			ASTM A1008 CSB	—	AA1008B1	
			EN 10130 DC01 Ab	—	E10130B1_AB	
			EN 10130 DC01 Bb	—	E10130B1_BB	
			JIS G3141 SPCC-SB	—	JSBCQ1	
			MS 2651 : 2015 SB	—	MSBCQ1	
			—	ASTM A1008 CSA	AA1008D1	
			—	ASTM A1008 CSB	AA1008D1	
			—	EN 10130 DC01 Am	E10130D1_AM	
			—	EN 10130 DC01 Bm	E10130D1_BM	
—			JIS G3141 SPCC-SD	HSDCQ1_R33		
—			JIS G3141 SPCC-SD	JSDCQ1		
—			MS 2651 : 2015 SD	MSDCQ1		
一般品級 (CQ1) Commercial Quality (CQ1)	桶料 Oil Drum	—	JIS G3141 SPCC-SD	HSDCQ1_DR	45 ~ 65	

產品特性 Product Property	品級 Temper Grade		厚度 / 寬度 mm Thickness/Width					
			850 ～ 899	900 ～ 950	951 ～ 1075	1076 ～ 1250	1251 ～ 1255	
極低碳鋼 Extra Low Carbon Steel	沖壓品級 Drawing Quality		0.40 ～ 1.00					
低碳鋼 Low Carbon Steel	全硬板 Full Hard		0.15 ～ 2.30		0.30 ～ 2.30			
			—	0.15 ～ 2.00	0.30 ～ 2.00		—	
			0.40 ～ 3.70					
			0.40 ～ 1.75					
			0.50 ～ 1.75					
			0.50 ～ 1.75					
			0.50 ～ 1.75					
			全硬板 Full Hard		電鍍用途 Electroplate		0.15 ～ 1.75	
	低硬度 Low Hardness				0.15 ～ 2.30		0.30 ～ 2.30	
	1/2 硬板 1/2 Hard		0.50 ～ 1.75					
	1/4 硬板 1/4 Hard		0.30 ～ 1.75					
	1/8 硬板 1/8 Hard		0.30 ～ 1.75					
			0.30 ～ 1.75					
	退火料 Annealed		0.20 ～ 1.75		0.30 ～ 1.75			
	一般品級 (CQ1) Commercial Quality (CQ1)		0.20 ～ 2.00		0.30 ～ 2.00			
			—	0.20 ～ 2.00	0.30 ～ 2.00		—	
			0.20 ～ 2.00		0.30 ～ 2.00			
			—	0.20 ～ 2.00	0.30 ～ 2.00		—	
			0.20 ～ 2.00		0.30 ～ 2.00			
	一般品級 (CQ1) Commercial Quality (CQ1)	桶料 Oil Drum	0.20 ～ 2.00		0.30 ～ 2.00			

冷軋產品接單規範

Available Specification and Dimension for Cold Rolled Products

產品特性 Product Property	品級 Temper Grade		規格 Steel Grade			硬度 (HRB) Hardness
			亮面 Bright	鈍面 Dull	規格代碼 Grade Code	
低碳鋼 Low Carbon Steel	一般品級 (CQC) Commercial Quality (CQC)		ASTM A1008 CSA	—	AA1008BC	40 ~ 60
			ASTM A1008 CSB	—	AA1008BC	
			EN 10130 DC01 Ab	—	E10130BC_AB	
			EN 10130 DC01 Bb	—	E10130BC_BB	
			JIS G3141 SPCC-SB	—	E10130BC_BB	
			MS 2651 : 2015 SB	—	MSBCQC	
			—	ASTM A1008 CSA ASTM A1008 CSB EN 10130 DC01 Am EN 10130 DC01 Bm JIS G3141 SPCC-SD	AA1008DC AA1008DC E10130DC_AM E10130DC_BM JSDCQC	58 Max.
						56 Max.
			—			54 Max.
				MS 2651 : 2015 SD	MSDCQC	58 Max.
					56 Max.	
					54 Max.	
	一般品級 (CQC) Commercial Quality (CQC)	低硬度 Low Hardness	JIS G3141 SPCC-SB	—	HSBCQC_H1	45 ~ 60
		桶料 Oil Drum	—	JIS G3141 SPCC-SD	HSDCQC_DR	58 Max.
	56 Max.					
	54 Max.					
	一般品級 (CQ2) Commercial Quality (CQ2)		ASTM A1008 CSA ASTM A1008 CSB EN 10130 DC01 Ab EN 10130 DC01 Bb JIS G3141 SPCC-SB	—	AA1008B2 AA1008B2 E10130B2_AB E10130B2_BB JSBCQ2	60 Max.
						56 Max.
			MS 2651 : 2015 SB	—	MSBCQ2	54 Max.
						60 Max.
						56 Max.
			—	ASTM A1008 CSA ASTM A1008 CSB EN 10130 DC01 Am EN 10130 DC01 Bm JIS G3141 SPCC-SD	AA1008D2 AA1008D2 E10130D2_AM E10130D2_BM JSDCQ2	54 Max.
						60 Max.
						56 Max.
			—	MS 2651 : 2015 SD	MSDCQ2	45 Max.
						60 Max.
						56 Max.
			45 Max.			
中高碳鋼 Medium and High Carbon Steel	S 料 Standard Temper Grade		CH-SB35C	—	HSB35C	60 ~ 80
			CH-SB35C, H90	—	HSB35C_H90	85 ~ 98
			CH-SB35C, H95	—	HSB35C_H95	90 ~ 100
			CH-SB35C, H100	—	HSB35C_H100	95 ~ 105
			CH-SB50C	—	HSB50C	85 Max.
			CH-SB50C, GF	—	HSB50C_GF	85 Max.
			CH-SB65C	—	HSB65C	85 Max.
			CH-SB65C, GF	—	HSB65C_GF	85 Max.
			CH-SK85M	—	HSK85M	90 Max.
			CH-SK85M, GF	—	HSK85M_GF	90 Max.
			CH-SK95M	—	HSK95M	90 Max.
CH-SK95M, GF	—	HSK95M_GF	90 Max.			
其他 Other	全硬板 (打包鋼帶用途) Full Hard (For Packing Steel Strap)		CH-1B, T85	—	H1B_T85	—
	退火料 (打包鋼帶用途) Annealed (For Packing Steel Strap)		CH-PKH	—	HPKH	
			CH-PKH, C	—	HPKH_C	—
			CH-PKH, F	—	HPKH_F	—

產品特性 Product Property	品級 Temper Grade		厚度 / 寬度 mm Thickness/Width				
			850 ～ 899	900 ～ 950	951 ～ 1075	1076 ～ 1250	1251 ～ 1255
低碳鋼 Low Carbon Steel	一般品級 (CQC) Commercial Quality (CQC)		0.20 ～ 2.00		0.30 ～ 2.00		
				0.20 ～ 2.00	0.30 ～ 2.00		—
			0.20 ～ 0.39		0.30 ～ 0.39		
			0.40 ～ 0.59				
			0.60 ～ 2.00				
	—	0.20 ～ 0.39	0.30 ～ 0.39		—		
	—	0.40 ～ 0.59			—		
	—	0.60 ～ 2.00			—		
	一般品級 (CQC) Commercial Quality (CQC)	低硬度 Low Hardness	0.20 ～ 2.00		0.30 ～ 2.00		
			0.20 ～ 0.39		0.30 ～ 0.39		
		桶料 Oil Drum	0.40 ～ 0.59				
			0.60 ～ 2.00				
	一般品級 (CQ2) Commercial Quality (CQ2)		0.20 ～ 0.29		0.30		
			0.31 ～ 0.59				
			0.60 ～ 1.75				
			—	0.20 ～ 0.29	0.30		—
			—	0.31 ～ 0.59			—
			—	0.60 ～ 1.75			—
			0.20 ～ 0.30		0.30		
			0.31 ～ 0.39				
			0.40 ～ 1.75				
			—	0.20 ～ 0.30	0.30		—
—			0.31 ～ 0.39			—	
—			0.40 ～ 1.75			—	
中高碳鋼 Medium and High Carbon Steel	S 料 Standard Temper Grade		0.30 ～ 1.60			—	
			0.90 ～ 1.50			—	
			0.90 ～ 2.35			—	
			0.90 ～ 2.35			—	
			0.30 ～ 0.40			—	
			0.30 ～ 0.40			—	
			0.30 ～ 1.00			—	
			0.30 ～ 1.00			—	
			0.30 ～ 1.00			—	
			0.30 ～ 1.00			—	
			0.30 ～ 1.00			—	
			0.30 ～ 1.00			—	
其他 Other	退火料 (打包鋼帶用途) Annealed (For Packing Steel Strap)		0.40 ～ 1.20				
			0.60 ～ 1.20				
			0.80 ～ 1.20				

熱浸鍍鋅產品接單規範

Available Specification and Dimension for Hot Dipped Galvanized Products

產品 Product	產品特性 Product Property	規格 Steel Grade			
		ASTM	JIS	AS	EN
冷軋鍍鋅 CGI	300 N/mm ² 一般品級 Commercial Quality	A653 CSA A653 CSB	G3302 SGCC	—	10346 DX51D
	350 N/mm ²	A653 SS Gr.33	G3302 SGC340	—	10346 S250GD
	400 N/mm ²	A653 SS Gr.40	G3302 SGC400	—	10346 S280GD
	450 N/mm ²	A653 SS Gr.45	G3302 SGC440	—	10346 S320GD
		A653 SS Gr.50	—	—	—
	450/500 N/mm ² 高強度低合金鋼 High Strength Low Alloy	A653 SS Gr.55	G3302 SGC490	—	10346 S350GD
		—	—	—	10346 S390GD
	450 N/mm ² 硬板 Hard Class	—	G3302 SGCH	1397 G450	—
	500 N/mm ² 硬板 Hard Class	—	—	1397 G500	—
熱軋鍍鋅 HGI	300 N/mm ² 一般品級 Commercial Quality	A653 CSA A653 CSB	G3302 SGHC	1397 G2	10346 DX51D
	350 N/mm ²	A653 SS Gr.33	G3302 SGH340	1397 G250	10346 S250GD
	400 N/mm ²	A653 SS Gr.40	G3302 SGH400	1397 G300	10346 S280GD
	450 N/mm ²	A653 SS Gr.45	G3302 SGH440	—	10346 S320GD
		A653 SS Gr.50	—	—	—
	450/500 N/mm ² 高強度低合金鋼 High Strength Low Alloy	A653 SS Gr.55	G3302 SGH490	1397 G350	10346 S350GD
		—	—	—	10346 S390GD
	550 N/mm ² 高強度低合金鋼 High Strength Low Alloy	—	G3302 SGH540	—	10346 S420GD
		—	—	—	10346 S450GD

產品 Product	產品特性 Product Property	訂單尺寸 (厚度 / 寬度) mm Order Dimension (Thickness/Width)					
		900 ~ 1119	1120 ~ 1174	1175 ~ 1237	1238 ~ 1250	1251 ~ 1300	1301 ~ 1524
冷軋鍍鋅 CGI	300 N/mm ² 一般品級 Commercial Quality	0.70 ~ 1.44			—		
	350 N/mm ²	0.70 ~ 1.44			—		
	400 N/mm ²	0.80 ~ 1.69			—		
	450 N/mm ²	0.80 ~ 1.74			—		
	450/500 N/mm ² 高強度低合金鋼 High Strength Low Alloy	0.80 ~ 1.74			—		
	450 N/mm ² 硬板 Hard Class	1.20 ~ 3.00			—		
	500 N/mm ² 硬板 Hard Class	1.20 ~ 3.00			—		
	550 N/mm ² 硬板 Hard Class	1.40 ~ 2.70			—		
熱軋鍍鋅 HGI	300 N/mm ² 一般品級 Commercial Quality	1.20 ~ 5.00			1.50 ~ 3.75		2.30 ~ 3.75
	350 N/mm ²	1.45 ~ 5.00			1.70 ~ 3.75		2.50 ~ 3.75
	400 N/mm ²	1.50 ~ 4.73	1.70 ~ 4.73		1.70 ~ 3.00		2.50 ~ 3.00
	450 N/mm ²	1.58 ~ 4.73	1.75 ~ 4.73	1.75 ~ 4.00	—		—
	450/500 N/mm ² 高強度低合金鋼 High Strength Low Alloy	2.00 ~ 4.73		2.00 ~ 4.00	—		—
		2.00 ~ 4.73		2.00 ~ 3.80	—		—
	550 N/mm ² 高強度低合金鋼 High Strength Low Alloy	2.00 ~ 4.73		2.00 ~ 3.80	—		—

精衝成形產品接單規範

Available Specification and Dimension for Fine Blanking and Formability Products

產品特性 Product Property	規格 Steel Grade	訂單尺寸 Order Dimension		機械性質 Mechanical Property				球化率 (%) Spheroidization Rating
		厚度 (mm) Thickness	寬度 (mm) Width	降伏強度 Yield Strength (N/mm²)	抗拉強度 Tensile Strength (N/mm²)	伸長率 (%) Elongation	硬度 (HRB) Hardness	
低碳鋼 Low Carbon Steel	JIS G3131 SPHD	2.50 ~ 4.50	900 ~ 1219	≤ 260	≤ 360	≥ 38	41 ~ 51	—
	JIS 4051 S15C	2.50 ~ 5.00	900 ~ 1219	≤ 300	≤ 440	≥ 35	63 ~ 73	≥ 90
		5.01 ~ 6.00		≤ 300	≤ 430	≥ 35	63 ~ 73	
	JIS 4051 S20C	1.80 ~ 3.50	900 ~ 1219	≤ 320	≤ 470	≥ 35	65 ~ 75	≥ 95
		2.50 ~ 5.00		≤ 320	≤ 470	≥ 35	65 ~ 75	≥ 90
		5.01 ~ 6.00		≤ 300	≤ 460	≥ 35	65 ~ 75	
	CUST S20C-CB	1.80 ~ 3.50	900 ~ 1219	≤ 540	≤ 590	≥ 15	86 ~ 95	≥ 95
	SAE 1020	1.80 ~ 3.50	900 ~ 1219	≤ 320	≤ 470	≥ 35	65 ~ 75	≥ 95
中高碳鋼 High and Medium Carbon Steel	JIS 4051 S35C	2.50 ~ 5.00	900 ~ 1219	≤ 360	≤ 530	≥ 27	77 ~ 81	≥ 90
		5.01 ~ 6.00		≤ 330	≤ 520	≥ 30	77 ~ 81	
	JIS 4051 S45C	1.80 ~ 3.50	900 ~ 1050	≤ 420	≤ 550	≥ 29	74 ~ 84	≥ 95
		2.50 ~ 5.00		≤ 440	≤ 580	≥ 27	76 ~ 86	≥ 90
		5.01 ~ 6.00		≤ 430	≤ 570	≥ 27	75 ~ 85	
	JIS 4051 S50C	1.80 ~ 3.10	900 ~ 1050	≤ 430	≤ 565	≥ 28	75 ~ 85	≥ 95
		2.50 ~ 5.00		≤ 450	≤ 595	≥ 27	76 ~ 86	≥ 90
		5.01 ~ 6.00		≤ 440	≤ 585	≥ 27	75 ~ 85	
	SAE 1050	1.80 ~ 3.10	900 ~ 1050	≤ 430	≤ 565	≥ 28	75 ~ 85	≥ 95
		2.50 ~ 5.00		≤ 450	≤ 595	≥ 27	76 ~ 86	≥ 90
		5.01 ~ 6.00		≤ 440	≤ 585	≥ 27	75 ~ 85	
	JIS 4051 S55C	1.80 ~ 2.63	900 ~ 1050	≤ 440	≤ 580	≥ 28	75 ~ 85	≥ 95
		2.50 ~ 5.00		≤ 460	≤ 600	≥ 27	75 ~ 86	≥ 90
		5.01 ~ 6.00		≤ 450	≤ 590	≥ 27	76 ~ 85	
	JIS G4802 S60C-CSP A	1.80 ~ 2.90	900 ~ 1050	≤ 450	≤ 580	≥ 28	75 ~ 85	≥ 95
		3.00 ~ 5.00		≤ 485	≤ 620	≥ 25	79 ~ 89	≥ 90
		5.01 ~ 6.00		≤ 465	≤ 610	≥ 27	77 ~ 87	
	SAE 1060	1.80 ~ 2.90	900 ~ 1050	≤ 450	≤ 580	≥ 28	75 ~ 85	≥ 95
		3.00 ~ 5.00		≤ 485	≤ 620	≥ 25	79 ~ 89	≥ 90
		5.01 ~ 6.00		≤ 465	≤ 610	≥ 27	77 ~ 87	
錳鉻合金鋼 Mn-Cr Alloy Steel	EN 10132 16MnCr5	2.50 ~ 5.00	900 ~ 1050	≤ 360	≤ 515	≥ 29	72 ~ 82	≥ 90
		5.01 ~ 6.00		≤ 325	≤ 490	≥ 32	72 ~ 82	
鉻鉬合金鋼 Cr-Mo Alloy Steel	JIS G4053 SCM415	2.50 ~ 5.00	900 ~ 1050	≤ 400	≤ 525	≥ 28	70 ~ 80	≥ 90
		5.01 ~ 6.00		≤ 350	≤ 500	≥ 31	70 ~ 80	
	JIS G4053 SCM435	3.00 ~ 5.00	900 ~ 1050	≤ 455	≤ 590	≥ 27	75 ~ 85	≥ 90
		5.01 ~ 6.00		≤ 425	≤ 570	≥ 27	75 ~ 85	
	SAE 4130	3.00 ~ 5.00	900 ~ 1050	≤ 450	≤ 590	≥ 25	75 ~ 85	≥ 90
		5.01 ~ 6.00		≤ 410	≤ 560	≥ 29	75 ~ 85	

產品特性 Product Property	規格 Steel Grade	化學成份 (%) Chemical Composition (%)								
		C	Mn	Si	P	S	Cr	Mo	Ni	Cu
低碳鋼 Low Carbon Steel	JIS G3131 SPHD	0.10 max.	0.50 max.	0.03 max.	0.025 max.	0.025 max.	—	—	—	—
	JIS 4051 S15C	0.13 } 0.18	0.30 } 0.60	0.15 } 0.35	0.025 max.	0.025 max.	—	—	—	—
	JIS 4051 S20C	0.18 } 0.23	0.30 } 0.60	0.15 } 0.35	0.025 max.	0.025 max.	—	—	—	—
	CUST S20C-CB	0.18 } 0.23	0.30 } 0.60	0.15 } 0.35	0.025 max.	0.025 max.	—	—	—	—
	SAE 1020	0.18 } 0.23	0.30 } 0.60	0.03 max.	0.025 max.	0.025 max.	—	—	—	—
中高碳鋼 High and Medium Carbon Steel	JIS 4051 S35C	0.32 } 0.38	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.035 max.	—	—	—	—
	JIS 4051 S45C	0.42 } 0.48	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.035 max.	—	—	—	—
	JIS 4051 S50C	0.47 } 0.53	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.035 max.	—	—	—	—
	SAE 1050	0.48 } 0.55	0.60 } 0.90	—	0.030 max.	0.035 max.	—	—	—	—
	JIS 4051 S55C	0.52 } 0.58	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.035 max.	—	—	—	—
	JIS G4802 S60C-CSP A	0.55 } 0.65	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.035 max.	0.20 max.	—	0.20 max.	0.30 max.
	SAE 1060	0.55 } 0.65	0.60 } 0.90	—	0.030 max.	0.035 max.	—	—	—	—
錳鉻合金鋼 Mn-Cr Alloy Steel	EN 10132 16MnCr5	0.14 } 0.19	1.00 } 1.30	0.40 max.	0.035 max.	0.035 max.	0.80 } 1.10	—	—	—
鉻鉬合金鋼 Cr-Mo Alloy Steel	JIS G4053 SCM415	0.13 } 0.18	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.030 max.	0.90 } 1.20	0.15 } 0.25	0.25 max.	—
	JIS G4053 SCM435	0.33 } 0.38	0.60 } 0.90	0.15 } 0.35	0.030 max.	0.030 max.	0.90 } 1.20	0.15 } 0.30	0.25 max.	—
	SAE 4130	0.28 } 0.33	0.40 } 0.60	0.15 } 0.35	0.030 max.	0.040 max.	0.80 } 1.10	0.15 } 0.25	0.25 max.	0.35 max.

熱軋產品品質保證

Quality Assurance for Hot Rolled Product

項目 Item	熱軋粗鋼捲 Hot Rolled Coil, Non-Skinpass		熱軋調質鋼捲 Hot Rolled Coil, Skinpass	
厚度公差 Tolerance on Thickness	參照 JIS、ASTM 或其他規範公差。 As per ASTM, JIS or other standards.		參照 1/2 JIS、ASTM 或其他規範公差。 As per 1/2 ASTM, JIS or other standards.	
寬度公差 Tolerance on Width	-0, +20 mm			
機械性質 Mechanical Property	參照 JIS、ASTM 或其他規範公差。 As per ASTM, JIS or other standards.			
化學成份 Chemical Composition	參照 JIS、ASTM 或其他規範公差。 As per ASTM, JIS or other standards.			
單重 Coil Weight	3 呎 3 Feet	12 ~ 18 噸 12 ~ 18 Tons	3 呎 3 Feet	6 ~ 10 或 12 ~ 18 噸 6 ~ 10 or 12 ~ 18 Tons
	3.5 呎 3.5 Feet	15 ~ 19.5 噸 15 ~ 19.5 Tons	3.5 呎 3.5 Feet	6 ~ 11 或 15 ~ 19.5 噸 6 ~ 11 or 15 ~ 19.5 Tons
	4 呎 4 Feet	16 ~ 23 噸 16 ~ 23 Tons	4 呎 4 Feet	8 ~ 13 或 16 ~ 23 噸 8 ~ 13 or 16 ~ 23 Tons
	5 呎 5 Feet	16 ~ 23 噸 16 ~ 23 Tons	5 呎 5 Feet	8 ~ 14 或 16 ~ 23 噸 8 ~ 14 or 16 ~ 23 Tons
平坦度 Flatness	參照 2 JIS G3193 As per 2 JIS G3193		參照 JIS G3193 As per JIS G3193	
弧形度 Camber	任一 2 公尺長度，弧形度不得超過 5 mm. 5 mm max. in any 2000 mm in length			
鏡筒狀鋼捲 Telescope	75 mm max.		20 mm max	
側緣凸出 Protruding Wraps	50 mm max.		20 mm max.	
鬆散鋼捲 Loose Wraps	內、外各三圈允許 External or internal 3 wraps max.		不允許 Not Allowed	
舌狀及魚尾 Tongue and Fish tail	1000mm max each		不允許 Not Allowed	
邊緣損傷 Damage edge 邊緣破裂 Edge crack 邊緣摺疊 Edge fold	內、外各三圈允許，不得深入訂單寬度。 External or internal 3 wraps max. The available width shall be not less than the order width.		不得深入訂單寬度。 The available width shall be not less than the order width.	
表面品質 Surface Quality	鋼捲經酸洗、冷軋、鍍鋅及烤漆任一加工後除鋼捲折痕外不得有表面缺陷。 Coil shall be free from surface defects except for coil break after any processing such as pickling, cold rolling, galvanizing and painting.		鋼捲經酸洗、冷軋、鍍鋅及烤漆任一加工後不得有表面缺陷。 Coil shall be free from surface defects after the process such as pickling, cold rolling, galvanizing and painting.	
內徑 Inside Diameter	762 ± 35 mm		762 ± 25 mm	
外徑 Outside Diameter	2000 mm max		—	
鋼捲折痕 Coil Break	不保證 Not Guaranteed		不允許 Not Allowed	

熱軋酸洗塗油產品品質保證

Quality Assurance for Pickled and Oiled Product

項目 Item	品質保證 Quality Assurance	
厚度公差 Tolerance on Thickness	參照 1/2 JIS、ASTM 或其他規範公差 As per 1/2 ASTM, JIS or other standards	
寬度公差 Tolerance on Width	修邊 -0, +7 mm，不修邊 -0, +20 mm -0, +7 mm for slit edge and -0, +20 mm for mill edge	
機械性質 Mechanical Property	參照 JIS、ASTM 或其他規範公差。 As per ASTM, JIS or other standards.	
化學成份 Chemical Composition	參照 JIS、ASTM 或其他規範公差。 As per ASTM, JIS or other standards.	
單重 Coil Weight	3 呎 3 Feet	6 ~ 10 或 12 ~ 18 噸 6 ~ 10 or 12 ~ 18 Tons
	3.5 呎 3.5 Feet	6 ~ 11 或 15 ~ 19.5 噸 6 ~ 11 or 15 ~ 19.5 Tons
	4 呎 4 Feet	8 ~ 13 或 16 ~ 23 噸 8 ~ 13 or 16 ~ 23 Tons
	5 呎 5 Feet	8 ~ 14 或 16 ~ 23 噸 8 ~ 14 or 16 ~ 23 Tons
平坦度 Flatness	參照 JIS G3193 As per JIS G3193	
弧形度 Camber	任一 2 公尺長度，弧形度不得超過 5 mm. 5 mm max. in any 2000 mm in length	
鏡筒狀鋼捲 Telescope	15 mm max.	
側緣凸出 Protruding Wraps	10 mm max.	
表面品質 Surface Quality	表面品質適用於鍍鋅及烤漆用途。 Surface quality shall be suitable for galvanizing and painting application.	
內徑 Inside Diameter	610 ± 15 mm/ 762 ± 15 mm	
外徑 Outside Diameter	2000 mm max.	
鋼捲折痕 Coil Break	不允許 Not Allowed	

冷軋產品品質保證

Quality Assurance for Cold Rolled Product

冷軋產品厚度公差

Thickness Tolerance for Cold Rolled Product

單位：mm
Unit：mm

項目 Item	品質保證 Quality Assurance			
厚度公差 Tolerance on Thickness	參照厚度公差表 As per table of thickness tolerance			
寬度公差 Tolerance on Width	修邊 -0, +7 mm -0, +7 mm for mill edge (Slit in pickling line)			
硬度 Hardness	參照接單規範表 As per table of available specification and dimension			
化學成份 Chemical Composition	參照 JIS、ASTM 或其他規範公差 As per ASTM, JIS or other standards			
單重 Coil Weight	3 呎 3 Feet	5 ～ 10 或 13 ～ 18 噸 5 ～ 10 or 13 ～ 18 Tons		
	4 呎 4 Feet	6 ～ 13 或 16 ～ 23 噸 6 ～ 13 or 16 ～ 23 Tons		
	其他寬度單重依 4 呎單重範圍及其寬度比例轉換，即 其他寬度單重 =4 呎單重×其他寬度 /4 呎寬度 Coil weight for other width is calculated by coil weight limit of 4 feet and their width ratio, i.e. coil weight for other width= coil weight for 4 feet × other width/4 feet width			
平坦度 Flatness	參照平坦度公差表 As per table of flatness tolerance			
弧形度 Camber	任一 2 公尺長度，弧形度不得超過 2 mm 2 mm max. in any 2000 mm in length			
表面品質 Surface Quality	表面品質適用於電鍍鎳、電鍍鉻用途 Surface quality shall be suitable for application of electroplating such as Nickel plating and Chromium plating.			
內徑 Inside Diameter	508 / 610 mm			
外徑 Outside Diameter	全硬板 2000 mm max.，其他產品 1800 mm max. 2000 mm max. for full hard and 1800 mm max. for other products.			
內圈加裝套筒 Sleeves on Inside Wrap	下列條件內圈須加裝套筒 The following condition shall be added sleeves on inside wrap			
	最終製程 Final process	鋼捲狀態 Coil Status	調質品級 Temper Grade	厚度 Thickness
	清洗 Electrolytic degreasing	不分切鋼捲 Non-cut coil	—	≤ 0.38mm
	精整或整平重捲 Tension leveler and skinpassing process or recoiling & tension leveling process	不分切鋼捲 Non-cut coil	—	≤ 0.45mm
		分切鋼捲 Cut coil	1B or SD	≤ 0.35mm
			SB	≤ 0.40mm

厚度 (t) Thickness	寬度 Width		
	850 ~ 999	1000 ~ 1249	1250 ~ 1255
t < 0.25	± 0.020	± 0.020	—
0.25 ≤ t < 0.40	± 0.020	± 0.020	—
0.40 ≤ t < 0.60	± 0.025	± 0.025	± 0.030
0.60 ≤ t < 0.80	± 0.030	± 0.030	± 0.030
0.80 ≤ t < 1.00	± 0.030	± 0.035	± 0.040
1.00 ≤ t < 1.25	± 0.035	± 0.040	± 0.045
1.25 ≤ t < 1.60	± 0.045	± 0.050	± 0.055
1.60 ≤ t < 2.00	± 0.055	± 0.060	± 0.065
2.00 ≤ t < 2.50	± 0.065	± 0.070	± 0.075
2.50 ≤ t < 3.15	± 0.075	± 0.080	± 0.085
3.15 ≤ t	± 0.085	± 0.095	± 0.100

說明：厚度須量測於距邊 15 mm 以上位置。距邊 15 ~ 70 mm 位置，厚度公差須符合 JIS G3141 表 A 數值；距邊 70 mm 以上位置，厚度公差須符合上表數值。

Note：Thickness shall be measured at any point not less than 15 mm from each edge. Thickness tolerance shall be complied with table A of JIS G3141 between 15 mm and 70 mm from each edge and above table at any point not less than 70 mm from each edge.

冷軋產品平坦度公差

Flatness Tolerance for Cold Rolled Product

單位：mm
Unit：mm

寬度 Width	全波 Wave	邊波 Edge Wave	中波 Buckle
≤ 999	12 max	8 max	6 max
1,000 ~ 1,249	15 max	9 max	8 max
1,250 ~ 1,300	15 max	11 max	8 max

熱浸鍍鋅產品品質保證

Quality Assurance for Hot Dipped Galvanized Product

項目 Item	熱軋鍍鋅 HGI		冷軋鍍鋅 CGI
底材 Base Metal	熱軋粗鋼捲 HR coil, Non-skinpassed	熱軋調質鋼捲 HR coil, skinpassed	冷軋鋼捲 Cold Rolled Coil
厚度公差 Tolerance on Thickness	參照 JIS、ASTM 或其他規範公差 As per ASTM, JIS or other standards		
寬度公差 Tolerance on Width	-0, +20mm		-0, +7 mm
鍍層代碼 Coating Mass Symbol	JIS 鍍層代碼 Z10 ～ Z35 或其他規範相對應之鍍層代碼 Z10 ～ Z35 for JIS or equivalent to coating mass symbol for other standards		
鍍層重量 Coating Mass	參照 JIS、ASTM 或其他規範 As per ASTM, JIS or other standards		
表面鋅花 Coating Surface Finishes	一般鋅花、細小鋅花 Regular spangle、minimized spangle		一般鋅花 Regular spangle
化學處理 Chemical Treatment	鉻酸鹽處理 Chromate treatment		
機械性質 Mechanical Property	參照各規範 As per ASTM, JIS or other standards		
化學成份 Chemical Composition	參照各規範 As per ASTM, JIS or other standards		
單重 Coil Weight	3 呎 3 Feet	6 ～ 10 或 12 ～ 18 噸 6 ～ 10 or 12 ～ 18 Tons	
	3.5 呎 3.5 Feet	6 ～ 11 或 15 ～ 19.5 噸 6 ～ 11 or 15 ～ 19.5 Tons	
	4 呎 4 Feet	8 ～ 13 或 16 ～ 23 噸 8 ～ 13 or 16 ～ 23 Tons	
	5 呎 5 Feet	8 ～ 14 或 16 ～ 23 噸 8 ～ 14 or 16 ～ 23 Tons	
平坦度 Flatness	參照 2 JIS G3302 As per 2 JIS G3302	參照 JIS G3302 或 ASTM A924 As per JIS G3302 or ASTM A924	
弧形度 Camber	任一 2 公尺長度，弧形度不得超過 5 mm. 5 mm max. in any 2000 mm in length		
鏡筒狀鋼捲 Telescope	25 mm max.		
側緣凸出 Protruding Wraps	20 mm max.		
表面品質 Surface Quality	表面品質適用於內銷 C 型鋼、製管用途 Surface quality shall be suitable for C channel and tube application in domestic marketing.	表面品質適用於 C 型鋼、製管及裁板途用途 Surface quality shall be suitable for application of C channel, tube and cut length.	
內徑 Inside Diameter	610 ± 15 mm/ 762 ± 15 mm		
鋼捲折痕 Coil Break	不保證 Not Guaranteed	不允許 Not Allowed	

精衝成形產品品質保證

Quality Assurance for Fine Blanking and Formability Product

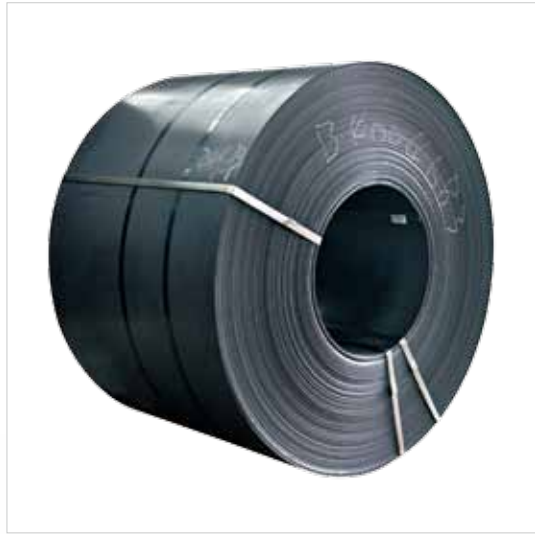
項目 Item	品質保證 Quality Assurance	
厚度公差 Tolerance on Thickness	± 0.05 mm	
寬度公差 Tolerance on Width	修邊 -0, +7 mm、不修邊 -0, +20 mm -0, +7 mm for slit edge and -0, +20 mm for mill edge	
機械性質 Mechanical Property	參照接單規範表 As per table of available specification and dimension	
硬度 Hardness	參照接單規範表 As per table of available specification and dimension	
球化分級 Spheroidization Rating	參照接單規範表 As per table of available specification and dimension	
化學成份 Chemical Composition	參照接單規範表 As per table of available specification and dimension	
單重 Coil Weight	3 呎 3 Feet	6 ~ 10 或 12 ~ 18 噸 6 ~ 10 or 12 ~ 18 Tons
	3.5 呎 3.5 Feet	6 ~ 11 或 15 ~ 19.5 噸 6 ~ 11 or 15 ~ 19.5 Tons
	4 呎 4 Feet	8 ~ 13 或 16 ~ 22 噸 8 ~ 13 or 16 ~ 22 Tons
平坦度 Flatness	參照 JIS G3193 As per JIS G3193	
弧形度 Camber	任一 2 公尺長度，弧形度不得超過 5 mm. 5 mm max. in any 2000 mm in length	
鏡筒狀鋼捲 Telescope	15 mm max.	
側緣凸出 Protruding Wraps	10 mm max.	
表面品質 Surface Quality	表面品質不得有刮傷、凹痕及蝕孔等缺陷。 Surface quality shall be free from defect such as scratch, dent and pitting.	
內徑 Inside Diameter	610 ± 15 mm/ 762 ± 15 mm	

產品標示與包裝

Product Labeling and Packing

■ 熱軋鋼捲內銷包裝範例

Standard Packing for Domestic HR Coil Sales

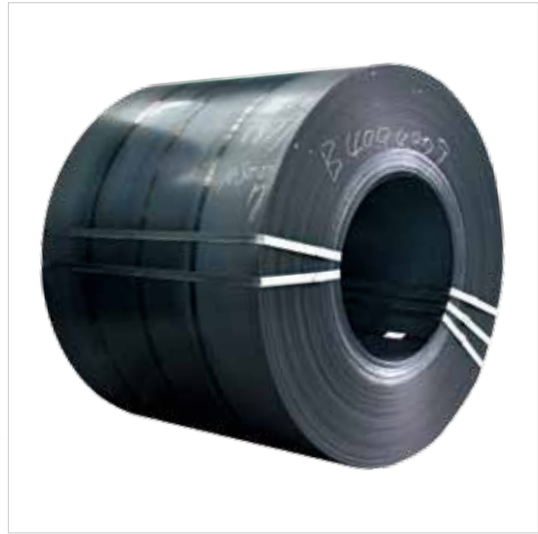


包裝方式：鐵帶

Packing Method : Circumferential Strap and Radial Strap

■ 熱軋鋼捲外銷包裝範例

Standard Packing for Export HR Coil Sales



包裝方式：鐵帶

Packing Method : Circumferential Strap and Radial Strap

■ 冷軋鋼捲內銷包裝範例

Standard Packing for Domestic CR Sales

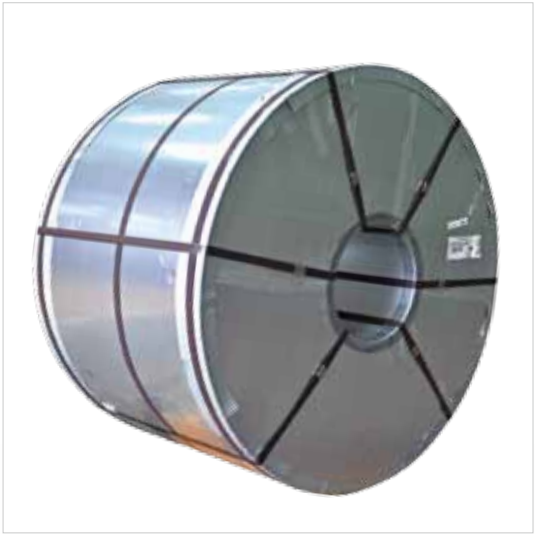


包裝方式：防鏽包裝紙及金屬護角

Packing Method : VCI Paper, Metal Corner Protector

■ 冷軋鋼捲外銷包裝範例

Standard Packing for Export CR Sales



包裝方式：防鏽包裝紙、鐵皮及金屬護角

Packing Method : VCI Paper, Metal Corner Protector and Metal Protector

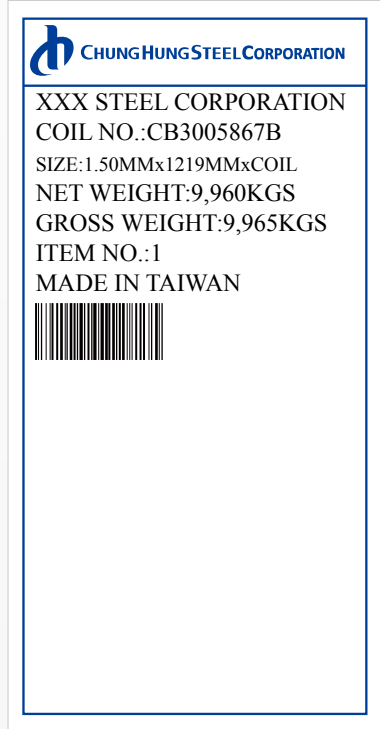
■ 熱軋鋼捲內銷標籤範例

Labeling for Domestic Sales



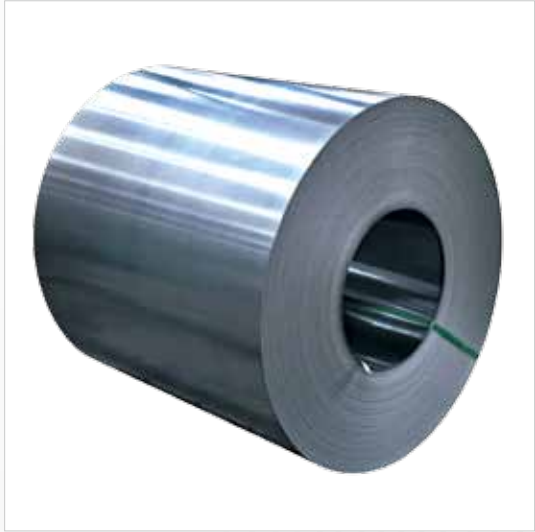
■ 熱軋鋼捲外銷標籤範例

Labeling for Export Sales



■ 冷軋鋼捲裸包範例

Bared Packing Example



包裝方式：裸包

Packing Method : Bared Packing

■ 冷軋鋼捲內銷標籤範例

Labeling for Domestic Sales

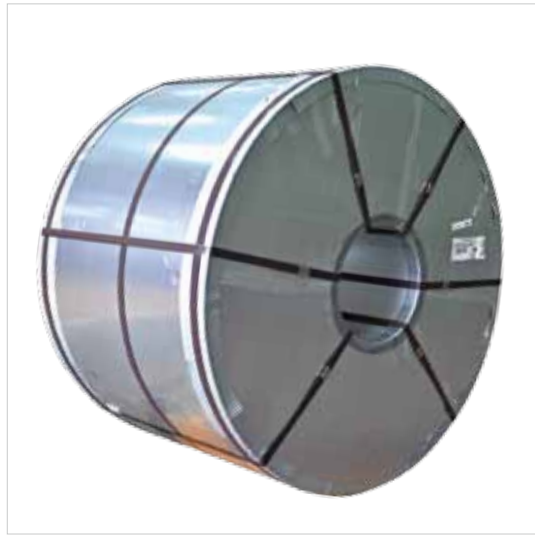


■ 冷軋鋼捲外銷標籤範例

Labeling for Export Sales

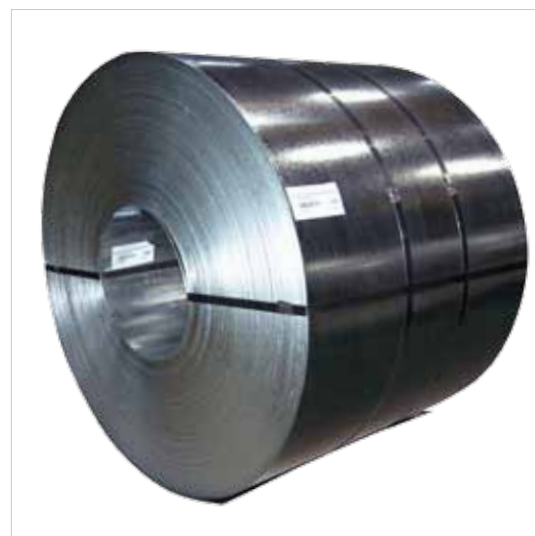


■ **鍍鋅、酸洗塗油及精衝材鋼捲
外銷包裝範例**
Standard Packing for Export GI, PO and FBFS Sales



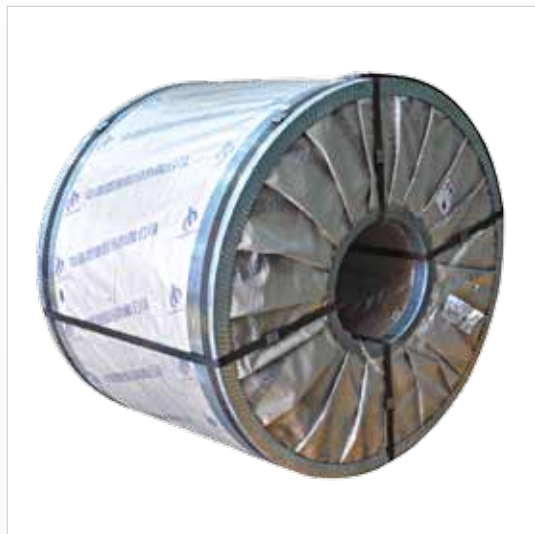
包裝方式：防水防銹紙、金屬護角、鋼帶及鐵皮
Packing Method：VCI Paper, Metal Corner Protector, Steel Strap and Metal Protector

■ **鍍鋅鋼捲內銷裸包範例**
Standard Packing for Domestic GI Sales



包裝方式：鐵帶
Packing Method：Steel Strap

■ **酸洗塗油及精衝材鋼捲
內銷包裝範例**
Standard Packing for Domestic PO and FBFS Sales



包裝方式：防水防銹紙、金屬護角及鋼帶
Packing Method：VCI Paper, Metal Corner Protector and Steel Strap

■ **精衝材內銷標籤範例**
Labeling for Domestic FBFS Sales



■ **鍍鋅內銷標籤範例**
Labeling for Domestic GI Sales

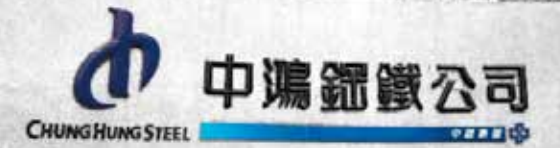


■ **外銷標籤範例**
Labeling for Export Sales



認證項目

Certification



■ **熱軋廠認證**
Hot Strip Mill Certificates



ISO9001
品質管理系統認證



馬來西亞 MS 證書



馬來西亞 CIDB 證書



JIS MARK G3131



JIS MARK G3101



ISO/IEC 17025
實驗室證書



新加坡 FPC 證書



泰國 TIS 證書



越南 VN 證書



CE 證書

■ **冷軋廠認證**
Cold Rolling Mill Certificates



ISO9001
品質管理系統認證



ISO/IEC 17025
實驗室證書



ISO9001
品質管理系統認證



馬來西亞 MS 證書



越南 VN 證書

■ **酸鍍廠認證**
Pickling and Galvanizing Mill Certificates



公司聯絡方式

Contact

■ 國內客戶 Domestic Customers

營業銷售 Marketing Department

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■ 國外客戶 Foreign Customers

中貿國際股份有限公司 China Steel Global Trading Corporation

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