



煌港
特鋼

PEAK KONG
SPECIAL STEEL

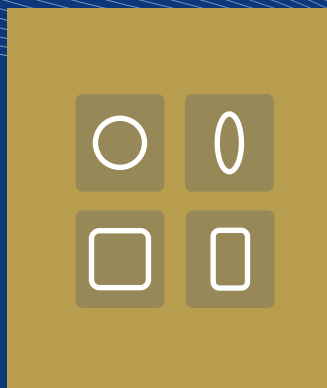
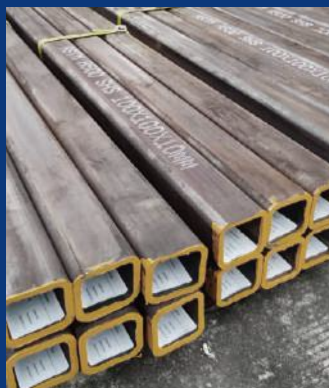
HOLLOW SECTIONS

鋼管

Pipe and Tube Structural
Products

Hot Finished

Cold Formed





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Introduction 簡介

煌港特鋼有限公司 (Peak Kong Special Steel) 憑藉深厚的特種鋼研發與先進製造實力, 自主研發出激光複合焊 (Laser-Arc Hybrid) + CMT/MAG/TIG 自動化柔性管材生產線國際標準

EN10210-1、EN10210-2 和 EN10219-2 典型牌號 S355J2H、S355NH 和 S460NH

EN 10210-3: 典型牌號 S460 至 S960 (高級高強度鋼系列)

ASTM A500: 典型 B/C 級鋼

AS1163 結構鋼空心型材: 典型牌號 C250、C350 與 C450

建築及機械工程用結構空心型材:

我們的熱成型結構空心型材是用於建築和機械工程應用的通用建築材料, 它們非常適合所有類型的鋼結構, 提供出色的承載和強度特性, 以優化客戶設計。



Peak Kong Special Steel Co., Ltd. (Fanggang Special Steel) has, through its profound expertise in special steel research and advanced manufacturing, independently developed a laser composite welding (Laser-Arc Hybrid) + CMT/MAG/TIG automated flexible pipe production line.

International standards

EN 10210-1, EN10210-2 and EN10219-2 typical grades S355J2H, S355NH and S460NH

EN 10210-3: typical grades S460 to S960 (advanced high-strength steel series)

ASTM A500: typical B/C grade steel

AS1163 structural steel hollow sections: typical grades C250, C350 and C450

Structural hollow sections for construction and mechanical engineering:

Our hot-formed structural hollow sections are general construction materials suitable for use in construction and mechanical engineering applications. They are highly suitable for all types of steel structures, providing excellent load-bearing and strength characteristics to optimize customer designs.



Production Standards and Quality Certificates

產品標準和質量證書

■ Cold Finished 冷成型

■ European standards 歐洲標準

The cold-formed structural tubes without subsequent heat treatment manufactured by Peak Kong are made in accordance with the EN 10219

For motives of service and end use of product, the cold manufacture of structural tube is based on two types and qualities of steel: S275J0H and

Hot dip galvanised tube is made in accordance with the EN 10240 standard and is shot blasted in accordance with the EN 10238 standard, grade SA 2.5 with or without primer.

由煌港特鋼製造的未經後續熱處理的冷成型結構鋼管符合 EN10219 標準。

出於服務和產品最終用途的考慮，結構管的冷製造基於兩種類型和質量的鋼：S275J0H和S355J2H。

熱浸鍍鋅管是根據EN10240標準製作，並按照EN 10238標準進行噴丸處理，等級為SA 2.5，帶或不帶底漆。

■ Other standards 其他標準

Cold-finished structural tube is made according to the American standard ASTM A500 and Canadi-

冷加工結構管根據美國標準ASTM A500和加拿大標準G40 21 C級製造。



■ Hot Finished 熱成型

The ranges of tubular sections/structural hollow sections of Peak Kong are made up of welded tubes manufactured in accordance with European standard EN 10210, parts 1 and 2. This standard has replaced the following national standards: NF A 49-501; DIN 59410; DIN 17120; BS 4848

These hot-finished structural hollow sections are normally manufactured in the standard type of hot rolled steels for building, which is as follows:

煌港特鋼的管材、結構鋼管由按歐洲標準EN10210第一部分和第二部分製造的焊接管組成。本標準取代了以下國家標準：NF A 49-501; DIN 59410; DIN 17120; BS 4848 part 2; UNI 7806 and (7807-08-09)。

這些熱成型結構鋼管通常採用標準類型的建築用熱軋鋼製造，其標準如下：S355J2和EN10025。



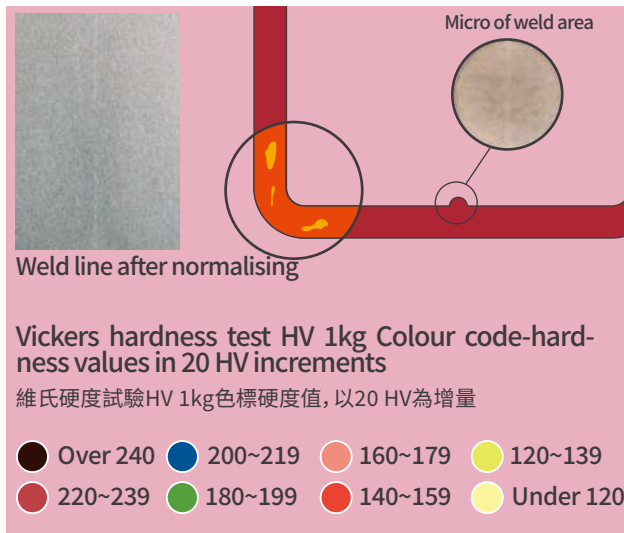
Quality Certificates 證書



Key Differences Between Hot Finished & Cold Formed Structural Hollow Sections

熱成型和冷成型結構鋼管的主要區別

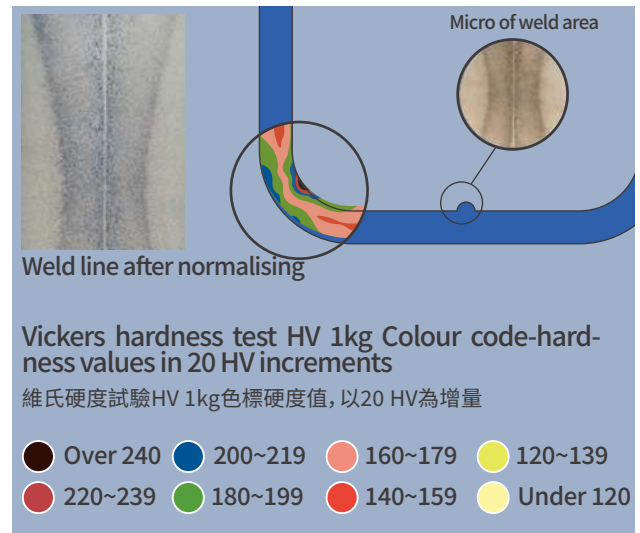
Grain Structure & Hardness 晶粒結構與硬度



EN10210 Hot Finished Products

Due to the manufacturing process Hot Finished hollow sections have a consistent and uniform grain structure throughout the flat face, weld and corner region.

由於制造技術的原因, 熱加工空心型材在整個平面、焊縫和拐角區域具有一致和均勻的晶粒結構。



EN10219 Cold Formed Products

The Cold Formed hollow section shows significant hardness around the corner region on both internal & external sides. It will also show a different structure within the heat effected zone (HAZ) of the weld (see figure above).

冷成型中空截面在內部和外部的拐角區域顯示出顯著的硬度。它還將顯示焊縫熱影響區 (HAZ) 內的不同結構 (見圖)。

Welding Properties 焊接性能

Welding is the critical operation for construction and mechanical applications and must be carried out in total safety to avoid any mechanical failure. The Hot Finished product allows full welding operations around the whole perimeter. The product has excellent welding properties due to the manufacture thereby offering the best mechanical results and maximum reliability for the finished application.

焊接是施工和機械應用的關鍵操作, 必須在完全安全的情況下進行, 以避免任何機械故障。熱成品允許在整個周邊進行全焊接操作。該產品因其製造而具有優異的焊接效能, 從而為最終應用提供最佳的機械效果和最大的可靠性。

Cold Forming has the built in residual stresses from manufacture and may have issues with welding particularly in the corner. This is recognised in the European Standard EC 3-1-8 clause 4.14 table 4.2 (overleaf) and clearly shows the dangers of welding with cold. If the Cold Formed does not comply with the table then you cannot weld within 5t from the corner. The welding limits from table 4.2 only apply to Cold Formed and Hot Finished is ok to weld around the whole perimeter.

冷成型在製造過程中具有內置的殘餘應力, 並且可能存在焊接問題, 尤其是在拐角處。這在歐洲標準EC 3-1-8第4.14條表4.2 (背頁) 中得到了認可, 並清楚地表明了冷焊的危險性。如果冷成型不符合表中的規定, 則不能在距離拐角5t以內進行焊接。表4.2中的焊接限制僅適用於可以在整個周邊進行焊接的冷成型和熱成型。

Section Properties 截面特性

In almost all sizes of Hot Finished the product will have a tighter corner radii than the Cold Formed. This is recognised in the product standards for hollow sections. EN10210 Hot Finished has greater area than EN10219 cold therefore giving better geometric properties for same size same thickness. The tighter corner profile with Hot Finished also gives a more aesthetic shape than the rounded corners of cold.

在幾乎所有尺寸的熱成型產品中，產品的角半徑都比冷成型產品的角徑小。這在管材的產品標準中得到了認可。EN10210熱加工比EN10219冷加工具有更大的面積，因此在相同尺寸和相同厚度的情況下具有更好的幾何效能。與冷加工的圓角相比，熱加工的圓角輪廓也更美觀。

4.14 Welding in Cold Formed zones 冷成型區的焊接

(1) Welding may be carried out within a length $5t$ either side of a Cold Formed zone, see Table 4.2, provided that one of the following conditions is fulfilled:

- the Cold Formed zones are normalized after Cold Forming but before welding;
- the r/t -ratio satisfies the relevant value obtained from Table 4.2.

(1) 如果滿足以下條件之一，可在冷成型區兩側長度 $5t$ 範圍內進行焊接，見錶4.2：

- 冷成型區域在冷成型後但在焊接前進行歸一化；
- r/t 比率滿足從錶4.2中獲得的相關值。

Table 4.2 conditions for welding Cold Formed zones and adjacent material

r/t	Strain due to cold forming 冷成型引起的應變 (%)	Maximum thickness 最大厚度 (mm)		
		Generally		Fully killed Aluminium-killed steel 全鎮靜鋼和鋁鎮靜鋼 (Al $\geq 0,02\%$)
		Predominantly static loading 主要為靜態負載	Where fatigue predominates 疲勞佔主導地位	
≥ 25	≤ 2	Any	Any	Any
≥ 10	≤ 5	Any	16	Any
≥ 3.0	≤ 14	24	12	24
≥ 2.0	≤ 20	12	10	12
≥ 1.5	≤ 25	8	8	10
≥ 1.0	≤ 33	4	4	6

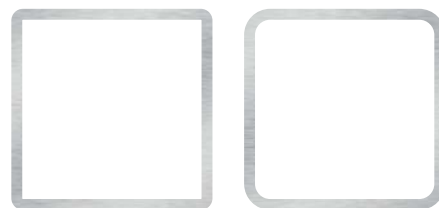
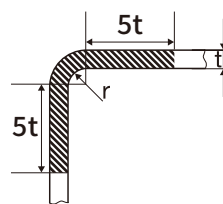
Notes 說明:

Cold Formed hollow sections according to EN10219 which do not satisfy the limits given in Table 4.2 can be assumed to satisfy these limits if these sections have a thickness not exceeding 12.5mm and are Al-killed with a quality J2H, K2H, MH, MLH, NH or NLH and further satisfy $C \geq 0,18\%$, $P \leq 0,020\%$ and $S \leq 0,012\%$.

In other cases welding is only permitted within a distance of $5t$ from the corners if it can be shown by tests that welding is permitted for that particular application.

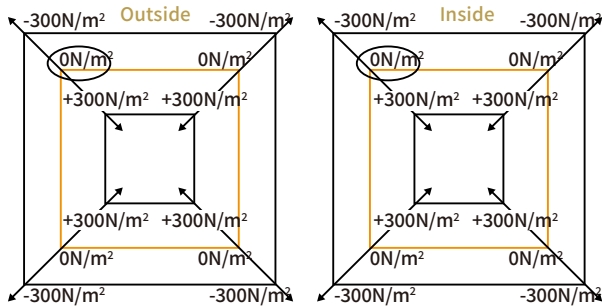
根據EN10219標準，如果冷成型鋼管不滿足表4.2中規定的限制，但其厚度不超過12.5mm，並且為鋁鎮靜鋼，質量等級為J2H、K2H、MH、MLH、NH或NLH，並且滿足 $C \geq 0,18\%$ ， $P \leq 0,020\%$ 和 $S \leq 0,012\%$ ，則可以假定這些鋼管滿足這些限制。

在其他情況下，只有在測試表明該特定應用允許焊接時，才僅允許在距離拐角 $5t$ 的範圍內進行焊接。



the difference in profile between Hot Finished (left) and Cold Formed (right) structural hollow sections
熱成型(左)和冷成型(右)結構管材之間的輪廓差異

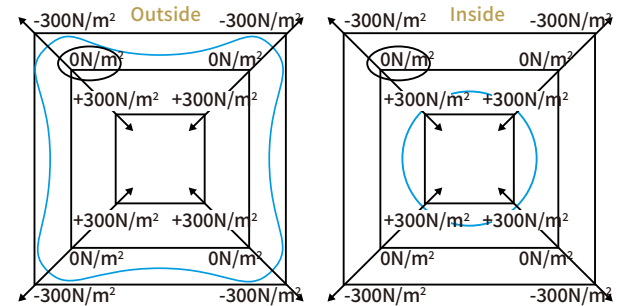
Residual Stress 殘餘應力



Hot Finished

The Hot Finished process offers benefits for critical applications which require consistent residual stress throughout the whole perimeter. As can be seen from figure above the Hot Finished shows uniform and very low stresses over the entire section.

熱加工工藝為關鍵應用提供了優勢，這些應用需要在整個周邊保持一致的殘餘應力。從上圖中可以看出，熱加工在整個截面上顯示出均勻且非常低的應力。



Cold Formed

The Cold Formed hollow sections (figure above) show high levels of residual stress particularly in the corner region. Due to the cold manufacture the residual stresses are built in and may cause unexpected distortion or cracking during the fabrication process (e.g. welding, galvanising, bending etc).

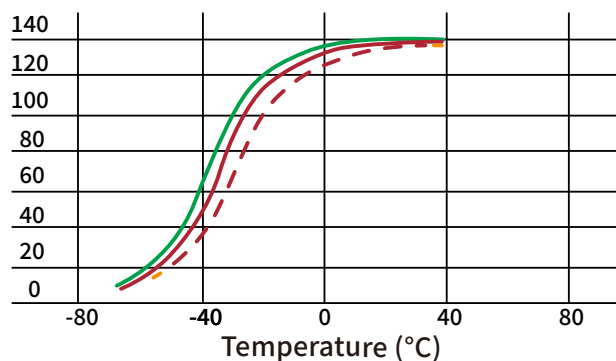
冷成型空心型材(上圖)顯示出高水準的殘餘應力，尤其是在角部區域。由於冷製造，殘餘應力是內真的，在製造過程中(例如焊接、鍍鋅、彎曲等)可能會導致意外變形或開裂。

Resistance to Fracture (Impact Properties) 抗斷裂性(衝擊性能)

Even when bent, manipulated or fabricated the Hot Finished product will have very little drop off with energy absorbed for the given specified temperature. The cold product due to the manufacture will lose more energy and will vary around the perimeter.

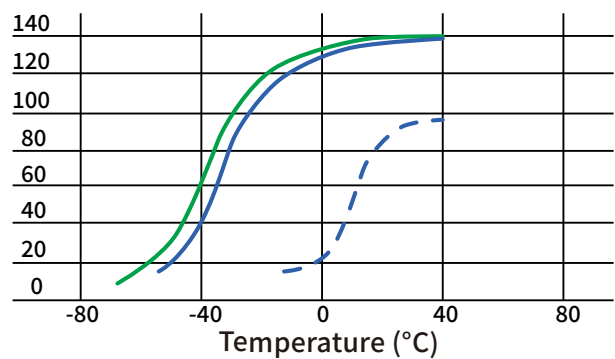
即使在折彎、加工或製造時，熱成型產品在給定的指定溫度下吸收的能量也會減少得很少。由於製造過程，冷成型產品會失去更多能量，並且圍繞周長產生變化。

Hot Absorbed Energy (J)



— Hot, Flat Face — Hot, Corner — Parent Strip Steel

Cold Absorbed Energy (J)

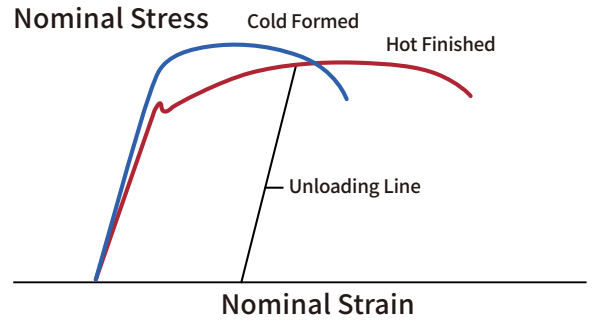


— Cold, Flat Face — Cold, Corner — Parent Strip Steel

Ductility 延展性

Hot Finished has high ductility at all points and in all directions. So even after yield there is still a reserve of ductility beyond the unloading line. The tensile test is used to measure ductility using specimens in a longitudinal direction, from the centre of the flat face and away from the weld. However in Cold Formed sections there is no clear indication of yield and ductility is substantially reduced in the weld and corner. The standard tensile test will not show this.

熱成型在所有點和所有方向上都具有高延展性。因此，即使在屈服後，仍然存在超出卸載線的延展性儲備。拉伸試驗用於測量延展性，使用縱向方向上的試樣，從平板的中心到遠離焊縫的方向。然而，在冷成型橫截面中，沒有明確的屈服指標，並且在焊縫和角部分延展性大幅降低。標準的拉伸試驗無法顯示這一點。



Schematic stress: strain plots for test specimens taken from corners of Celsius 355 and Cold Formed structural hollow sections indicating differences in ductility.

應力示意圖：Celsius® 355和冷成型結構鋼管的角部取樣試驗樣本的應變圖，顯示出在延展性方面的差異。

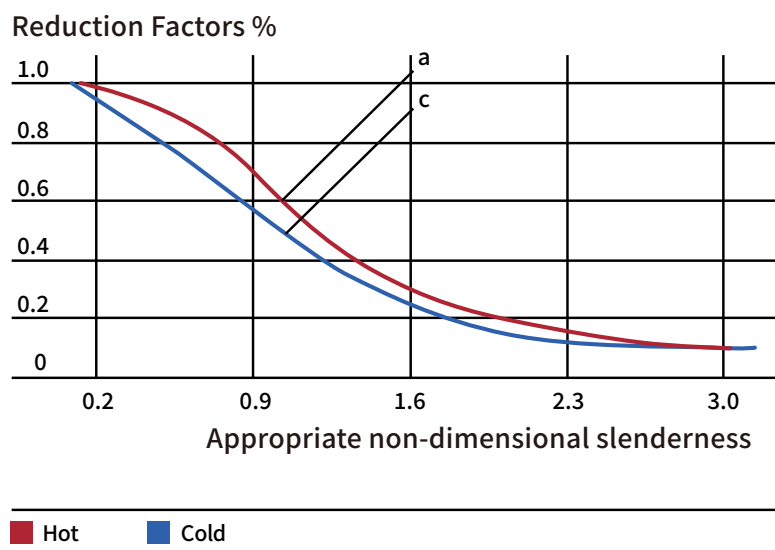
Buckling Strength (Stress of Flexure) 屈曲强度 (彎曲應力)

The manufacture of Hot Finished is recognised in the design of structural elements with improved buckling strength compared to that of cold.

Hot Finished can utilise strut curve 'a' from Eurocode 3 where as Cold Formed, which has residual stresses and reduced plastic deformation from manufacture uses the lower strut curve 'c'. The buckling strengths of Hot Finished are up to 35% greater than Cold Formed sections of the same size and same thickness.

熱加工的製造在結構元件的設計中得到認可，與冷加工相比，其屈曲强度有所提高。

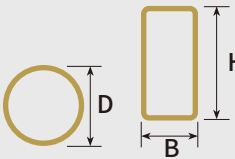
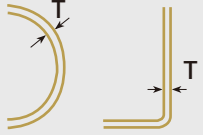
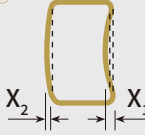
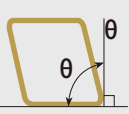
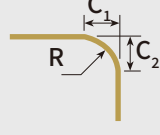
熱加工可以使用歐洲規範3中的支柱曲線“a”，其中，作為冷成型，具有殘餘應力並減少了製造過程中的塑性變形，使用下部支柱曲線“c”。熱成型型材的屈曲强度比相同尺寸和厚度的冷成型型材高出35%。



Technical Data 技術參數

Dimensional Tolerances to EN 10210 and EN 10219

符合EN10210和EN10219的尺寸公差

Characteristics 特性	Circular hollow sections 圓通		Square/rectangular hollow sections 方通/扁通	
	Hot finished 熱成型	Cold finished 冷成型	Hot finished 熱成型	Cold finished 冷成型
Outside dimensions (D, B and H) 	$\pm 1\%$ with a min. of $\pm 0.5\text{mm}$ and a max. of $\pm 10\text{mm}$	$\pm 1\%$ with a min. of $\pm 0.5\text{mm}$ and a max. of $\pm 10\text{mm}$	$\pm 1\%$ ^① with a min. of $\pm 0.5\text{mm}$ and a max. of $\pm 10\text{mm}$	• H, B < 100mm $\pm 1\%$ with a min. of $\pm 0.5\text{mm}$ • $100\text{mm} \leq H, B \leq 200\text{mm}$ $\pm 0.8\%$ • H, B > 200mm $\pm 0.6\%$
Thickness (T) 	-10% ^{②③}	• $D \leq 406.4\text{ mm}$ $T \leq 5\text{ mm}$ $\pm 10\%$ $T > 5\text{ mm}$ $\pm 0.50\text{mm}$ • $D > 406.4\text{ mm}$ $\pm 10\%$ with max. of $\pm 2\text{mm}$	-10% ^{②③}	• $T \leq 5\text{mm}$ $\pm 10\%$ • $T > 5\text{mm}$ $\pm 0.5\text{mm}$
Out of roundness (O) $\frac{D_{\text{max.}} - D_{\text{min.}}}{100}$ 	2% max.D nominal if $D/T \leq 100$ ^④	2% max.D nominal if $D/T \leq 100$ ^④		
Concavity/Convexity (X_1, X_2) ^⑤ 			1%	0.8% max. with a min. of 0.5mm
Squareness of side (θ) 			$90^\circ \pm 1^\circ$	$90^\circ \pm 1^\circ$
External corner profile (C_1, C_2 , or R) ^⑥ 			$R \leq 3T$	• $T \leq 6\text{mm}$ $R = 1.6T$ to $2.4T$ • $6 < T \leq 10\text{mm}$ $R = 2.0T$ to $3.0T$ • $T > 10\text{mm}$ $R = 2.4T$ to $3.6T$
Twist (V) 			2mm ^⑦ + 0.5mm/m in length	
Straightness (e) 	0.20% ^① of total length & 3mm over any 1m length		0.20% of total length & 3mm over any 1m length	0.20% of total length & 3mm over any 1m length
Mass (M)	$\pm 6\%$ in individual lengths ^⑦		$\pm 6\%$ in individual lengths ^⑦	

Notes 說明:

- ① Only in hot tubes: for hollow elliptical section profiles of size H < 250 mm, the admissible tolerance is double the value indicated in this table.
- ② The positive tolerance is limited by the mass tolerance.
- ③ In hollow seamless profiles, thicknesses of under 10% are available but not less than 12.5% of the nominal thickness in smooth transition areas without exceeding 25% of the circumference.
- ④ Where the diameter/thickness ratio exceeds 100, the oval tolerance must be agreed upon.
- ⑤ The concavity and convexity tolerance is irrespective of the outside dimensions tolerance.

- ① 僅適用於熱管：對於H < 250mm的橢圓鋼管，允許公差是本表所示值的2倍。
- ② 正公差受質量公差的限制。
- ③ 在無縫空心型材中，厚度可小於10%，但在光滑過度區域不小於標稱厚度的12.5%，且不過圓周的25%。
- ④ 如果直徑/厚度比超過100，則必須商定橢圓公差。
- ⑤ 凹凸公差與外形尺寸公差無關。
- ⑥ 僅適用於熱管：邊不必與角的弧相切。
- ⑦ 空心無縫型材的質量正公差為8%。

Data of Steels for Welded and Seamless Hollow Sections 焊接和無縫鋼管參數

Chemical Analysis 化學分析

Steel Grade鋼種		Chemical elements (% on mass) 化學元素 (質量百分比)													
Steel Grade 鋼號	Number 編號	C max.	Si max.	Mn	P max.	S max.	Nb max.	V max.	Al min.	Ti max.	Cr max.	Ni max.	Mo max.	Cu max.	N max.
S235JRH	1.0039	0.17	—	max.1.40	0.040	0.040	—	—	—	—	—	—	—	—	0.009
S275J0H	1.0149	0.20	—	max.1.50	0.035	0.035	—	—	—	—	—	—	—	—	0.009
S275J2H	1.0138	0.20	—	max.1.50	0.030	0.030	—	—	—	—	—	—	—	—	—
S355J0H	1.0547	0.22	0.55	max.1.60	0.035	0.035	—	—	—	—	—	—	—	—	0.009
S355J2H	1.0576	0.22	0.55	max.1.60	0.030	0.030	—	—	—	—	—	—	—	—	—
S355K2H	1.0512	0.22	0.55	max.1.60	0.030	0.030	—	—	—	—	—	—	—	—	—
S275NH	1.0493	0.20	0.40	0.50-1.40	0.035	0.030	0.050	0.08	0.020	0.03	0.30	0.30	0.10	0.35	0.015
S275NLH	1.0497	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S355NH	1.0539	0.20	0.50	0.90-1.65	0.035	0.030	0.050	0.12	0.020	0.03	0.30	0.50	0.10	0.35	0.020
S355NLH	1.0549	0.18	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S420NH	1.8750	0.22	0.60	1.00-1.70	0.035	0.030	0.050	0.20	0.020	0.03	0.30	0.80	0.10	0.70	0.025
S420NLH	1.8751	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S460NH	1.8953	0.22	0.60	1.00-1.70	0.035	0.030	0.050	0.20	0.020	0.03	0.30	0.80	0.10	0.70	0.025
S460NLH	1.8956	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S275MH	1.8843	0.13	0.50	max.1.50	0.035	0.030	0.050	0.08	0.020	0.050	—	0.30	0.20	—	0.020
S275MLH	1.8844	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S355MH	1.8845	0.14	0.50	max.1.50	0.035	0.030	0.050	0.10	0.020	0.050	—	0.30	0.20	—	0.020
S355MLH	1.8846	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S420MH	1.8847	0.16	0.50	max.1.70	0.035	0.030	0.050	0.12	0.020	0.050	—	0.30	0.20	—	0.020
S420MLH	1.8848	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—
S460MH	1.8849	0.16	0.60	max.1.70	0.035	0.030	0.050	0.12	0.020	0.050	—	0.30	0.20	—	0.025
S460MLH	1.8850	—	—	—	0.030	0.025	—	—	—	—	—	—	—	—	—

- Steels according to EN 10210 for hot finished hollow sections. 符合EN10210的熱加工空心型材的用鋼。
- Steels according to EN 10210 and EN 10219 for hot finished and cold finished hollow sections. 符合EN10210和EN10219的熱加工和冷加工的空心型材的用鋼。
- Steels according to EN 10219 for cold finished hollow sections. 符合EN10219的冷加工空心型材的用鋼。

Mechanical Properties 機械性能

Steel Grade 鋼號	Min. Yield Strength 最小屈服強度 R _{eH} (Mpa)						Tensile Strength 抗拉強度 R _m (Mpa)			Min. Elongation 最小延伸率 (%)				Min. Impact Energy 最小衝擊能量 KV (J)			
	Specified thickness 規定厚度t(mm)													Temperature 溫度 (°C)			
	≤16	>16 ≤40	>40 ≤63	>63 ≤80	>80 ≤100	>100 ≤120	≤3	>3 ≤100	>100 ≤120	≤40	>40 ≤63	>63 ≤100	>100 ≤120	-50	-20	0	+20
S235JRH	235	225	215	215	215	195	360-510	360-510	350-500	26(24) ^①	25	24	22	—	—	—	27
S275J0H	275	265	255	245	235	225	430-580	410-560	400-540	23(20) ^①	22	21	19	—	—	27	—
S275J2H														—	27	—	—
S355J0H	355	345	335	325	315	295	510-680	470-630	450-600	22(20) ^①	21	20	18	—	—	27	—
S355J2H														—	27	—	—
S355K2H														—	40	—	—
S275NH	275	265	255	—	—	—	370-510	370-510	—	24	24	—	—	—	40	—	—
S275NLH														27	—	—	—
S355NH	355	345	335	—	—	—	470-630	470-630	—	22	22	—	—	—	40	—	—
S355NLH														27	—	—	—
S420NH	420	400	390	—	—	—	520-680	520-680	—	19	19	—	—	—	40	—	—
S420NLH														27	—	—	—
S460NH	460	440	430	—	—	—	540-720	540-720	—	17	17	—	—	—	40	—	—
S460NLH														27	—	—	—
S275MH	275	265	—	—	—	—	360-510	360-510	—	24	—	—	—	—	40	—	—
S275MLH														27	—	—	—
S355MH	355	345	—	—	—	—	450-610	450-610	—	22	—	—	—	—	40	—	—
S355MLH														27	—	—	—
S420MH	420	400	—	—	—	—	500-660	500-660	—	19	—	—	—	—	40	—	—
S420MLH														27	—	—	—
S460MH	460	440	—	—	—	—	530-720	530-720	—	17	—	—	—	—	40	—	—
S460MLH														27	—	—	—

Notes 說明:

① The impact test for steelgrades JR and J0 is optional according to EN 10219, if required, it has to be explicitly stated in the order sheet. In case of cold finished sections, the heat treatments are effected on the base coil,

① 根據EN 10219, JR和J0級鋼的衝擊試驗是可選的, 如果需要, 必須在訂單中明確說明。如果是冷加工型材, 則熱處理在基礎盤管上進行, 而不是在加工型材上進行。

Fine Grain High-Strength Steel Grades 細晶粒高強鋼等級

Chemical Analysis 化學分析

Steel Grade鋼種	Chemical elements (% on mass) 化學元素(質量百分比)						
	C	Si	Mn	P max.	S max.	Cr	Mo
690*	max.0.20	0.15-0.50	max.1.70	0.025	0.015	max.1.00	0.30-0.45
690 ImpactFIT 40	0.14-0.18	0.20-0.50	1.20-1.70	0.025	0.015	max.0.80	0.20-0.40
690 ImpactFIT 50 ^①	max.0.20	max.0.60	max.1.70	0.025	0.015	max.1.50	max.0.70
700*	max.0.15	0.10-0.50	max.1.40	0.020	0.010	0.40-0.60	0.20-0.60
700 ImpactFIT 40	0.14-0.18	0.20-0.50	1.20-1.70	0.025	0.015	max.0.80	0.20-0.40
700 ImpactFIT 60	0.14-0.18	0.20-0.50	1.20-1.70	0.025	0.015	max.0.80	0.20-0.40
700 TempFIT 300	0.14-0.18	0.20-0.50	1.20-1.70	0.025	0.015	max.0.80	0.20-0.40
700 TempFIT 400*	max.0.15	0.10-0.50	max.1.40	0.020	0.010	0.40-0.60	0.20-0.60
770*	max.0.20	0.20-0.50	1.20-1.70	0.025	0.015	max.0.50	0.20-0.50
780 ImpactFIT 40	0.14-0.18	0.20-0.50	1.20-1.70	0.025	0.015	max.0.80	0.20-0.40
790*	max.0.18	0.20-0.50	1.20-1.70	0.020	0.010	0.40-1.00	0.20-0.50
800 ImpactFIT 40 ^②	0.10-0.18	0.20-0.50	1.20-1.70	0.025	0.015	0.40-0.90	0.20-0.50
890*	max.0.18	0.20-0.50	max.1.60	0.020	0.010	0.50-0.80	0.20-0.70
890 ImpactFIT 50 ^③	max.0.18	max.0.50	max.1.50	0.020	0.010	max.0.90	max.0.50
900 ImpactFIT 40 ^②	0.14-0.18	0.20-0.50	1.20-1.70	0.020	0.010	0.40-0.90	0.30-0.70
960 ImpactFIT 40	max.0.20	max.0.50	1.20-1.70	0.020	0.010	0.40-1.00	0.30-1.00

Steel Grade鋼種	Chemical elements (% on mass) 化學元素(質量百分比)						
	Ni	W	V	Al	N max.	Ti max.	Nb max.
690*	0.30-0.70	—	max.0.12	—	0.015	0.05	0.05
690 ImpactFIT 40	max.0.40	0.10~0.35	0.05-0.12	0.015-0.050	0.020	0.05	0.05
690 ImpactFIT 50 ^①	max.1.50	max.1.50	max.0.14	max.0.060	0.020	0.05	0.05
700*	1.00-1.50	—	max.0.10	—	0.015	0.05	0.05
700 ImpactFIT 40	max.0.40	0.10-0.70	0.05-0.12	0.015-0.050	0.020	0.05	0.05
700 ImpactFIT 60	max.0.40	0.10-0.70	0.05-0.12	0.015-0.050	0.020	0.05	0.05
700 TempFIT 300	max.0.40	0.10-0.70	0.05-0.12	0.015-0.050	0.020	0.05	0.05
700 TempFIT 400*	1.00-1.50	—	max.0.10	—	0.015	0.05	0.05
770*	0.50-1.20	—	max.0.12	—	0.020	—	0.05
780 ImpactFIT 40	max.0.40	0.10-0.70	0.05-0.12	0.015-0.050	0.020	0.05	0.05
790*	0.50-1.70	—	max.0.10	—	0.020	—	0.05
800 ImpactFIT 40 ^②	max.0.40	0.10-0.80	0.03-0.12	0.015-0.050	0.020	0.05	0.06
890*	1.00-1.70	—	max.0.10	—	0.020	—	0.05
890 ImpactFIT 50 ^③	max.0.40	max.1.50	max.0.08	max.0.050	0.020	0.05	0.06
900 ImpactFIT 40 ^②	max.0.40	0.40-0.80	0.03-0.12	0.015-0.050	0.020	0.05	0.06
960 ImpactFIT 40	max.0.40	0.40-1.50	max.0.02	—	0.025	0.03	0.05

Notes 說明:

* Cu ≤ 0.25%; B ≤ 0.005%.

① Cu ≤ 0.50%; B ≤ 0.0008%; Zr ≤ 0.15%; if Cu>0.30% the Ni content must be at least half the content of Cu.

② Cu ≤ 0.30%.

Mechanical Properties 機械性能

Steel Grade 鋼號	Min. Yield Strength 最小屈服強度 R _{eH} (Mpa)	Tensile Strength 抗拉強度 R _m (Mpa)	Min. Elongation 最小延伸率 (%)	Min. Impact Energy 最小衝擊能量 KV (J)					Equivalent Steel Grades ^① 等效鋼號
				Temperature 溫度 (°C)					
				-20	-30	-40	-50	-60	
690	690	770~960	16	—	—	40	—	—	FGS70V S690QL
690 ImpactFIT 40	690	770~960	16	—	—	45	—	—	SG69Q
690 ImpactFIT 50	690 (650 if 16<t≤20)	700~960	14	—	—	—	27	—	S690G5QL
700	700 (690 if 12<t≤20)	770~960	16	—	—	—	—	40	FGS70CV FGP70CVT S690QL1
700 ImpactFIT 40	700 (690 if 12<t≤20)	770~960	16	—	—	45	—	—	FGS70WV S690G5QL
700 ImpactFIT 60	700 (690 if 12<t≤20)	770~960	16	—	—	—	—	40	FGS70CWV S690G2QL1
700 TempFIT 300	700 (690 if 12<t≤20) 510 at +300°C	770~960 620~960 at +300°C	16	—	—	—	—	40	FGP70CWV P690G1QL1
700 TempFIT 400	700 (690 if 12<t≤20) 490 at +400°C	770~960 630~960 at +400°C	16	—	—	—	—	40	FGP70CVW P690QH
770	770 (750 if 12<t≤20)	820~1000	15	—	—	40	—	—	FGS78V S770QL
780 ImpactFIT 40	790	820~1000	15	—	—	45	—	—	FGS78WV S770G1QL
790	780 (770 if 12<t≤20)	850~1030	15	—	—	—	—	40	FGS80V S790QL1
800 ImpactFIT 40	800 (790 if 12<t≤20)	850~1030	15	—	—	40	—	—	FGS80WV S790QL
890	890	960~1110	14	—	—	—	—	30	FGS90CV S890QL1
890 ImpactFIT 50	890 (850 if 16<t≤20)	960~1110	14	—	—	—	27	—	SG89Q
900 ImpactFIT 40	900 (890 if 12<t≤20)	960~1110	14	—	—	45	—	—	FGS90WV S890G1QL
960 ImpactFIT 40	960	980~1150	10	—	—	27	—	—	FGS100WV S90G1QL

Notes 說明:

① This comparison has been effected with manufacturers' specifications no longer in use or with current codifications according to the European regulations.

① 這個對比受不再使用的製造商規範或依據歐洲法規的當前編目的影響。
t: 標稱壁厚, 單位mm。

List of Corrensponding International Standard (For Reference only)

國際標準對應表 (僅供參考)

EN10210/EN 10219 Steel Grade鋼號		UNI Norm	DIN Norm	BS Norm	AFNOR Norm	Special Steels
S235JRH	EN10210 EN10219	7806 Fe 360 B 7810 Fe 360 B	St 37.2 DIN 17100 USt 37.2 RSt 37.2		E 24-2	
S275J0H	EN10210 EN10219	7806 Fe 430 C 7810 Fe 430 C	DIN 17100 St 44.3	BS 4360 43 C	E 28-3	
S275J2H	EN10210 EN10219	7806 Fe 430 D 7810 Fe 430 D	DIN 17100 St 44.3	BS 4360 43 D	E 28-4	
S355J0H	EN10210 EN10219	7806 Fe 510 C 7810 Fe 510 C	DIN 17100 St 52.3	BS 4360 50 C	E 36-3	
S355J2H	EN10210 EN10219	7806 Fe 510 D 7810 Fe 510 D	DIN 17100 St 52.3	BS 4360 50 D	E 36-4	
S355K2H	EN10210 EN10219					
S275NH	EN10210 EN10219					
S275NLH				BS 4360 43 EE		
S355NH					E 355 R	
S355NLH				BS 4360 50 EE		
S460NH					E 460 R	22MnV6 20MnV6
S460NLH				BS 4360 55 EE		
S420NH	EN10210	7806 Fe E 420				
S420NLH						
S275MH	EN10219					
S275MLH						
S355MH						
S355MLH						
S420MH						
S420MLH						
S460MH						
S460MLH						

This table contains steelgrades which are known but no longer up to date or are present only in manufacturers' specifications. For each of them, an alternative steelgrade, among the ones codified by EN 10210 and EN 10219, with similar features is suggested.

The "Special Steels" according to manufacturers' specifications, neither foreseen by EN10210 nor EN10219.

此表包含已知但不再是最新或僅在製造商規範中存在的鋼種。對於其中的每一種，建議在EN10210和EN10219編碼的鋼種中選擇具有類似特征的鋼種。

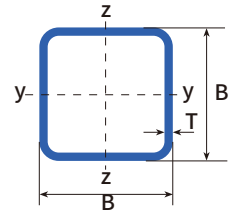
特殊鋼符合製造商的標準，EN10210和EN10219均未預見。

Cold Formed Hollow Sections to: EN10219

EN10219冷成型鋼管

■ Cold Formed Welded Structural Square Hollow Sections

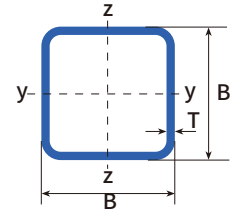
冷成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
20 x 20	2.0	1.05	1.34	0.692	0.720	0.692	1.21	1.06
25 x 25	2.0	1.36	1.74	1.48	0.924	1.19	2.53	1.80
	2.5	1.64	2.09	1.69	0.899	1.35	2.96	2.07
	3.0	1.89	2.41	1.84	0.874	1.47	3.32	2.27
30 x 30	2.0	1.68	2.14	2.72	1.13	1.81	4.54	2.75
	2.5	2.03	2.59	3.16	1.10	2.10	5.40	3.20
	3.0	2.36	3.01	3.50	1.08	2.34	6.15	3.58
	4.0	2.94	3.75	3.97	1.03	2.64	7.30	4.11
35 x 35	3.0	2.83	3.61	5.95	1.28	3.40	10.2	5.18
	4.0	3.57	4.55	6.93	1.23	3.96	12.4	6.09
40 x 40	2.0	2.31	2.94	6.94	1.54	3.47	11.3	5.23
	2.5	2.82	3.59	8.22	1.51	4.11	13.6	6.21
	3.0	3.30	4.21	9.32	1.49	4.66	15.8	7.07
	4.0	4.20	5.35	11.1	1.44	5.54	19.4	8.48
50 x 50	2.0	2.93	3.74	14.1	1.95	5.66	22.6	8.51
	2.5	3.60	4.59	16.9	1.92	6.78	27.5	10.2
	3.0	4.25	5.41	19.5	1.90	7.79	32.1	11.8
	4.0	5.45	6.95	23.7	1.85	9.49	40.4	14.4
	5.0	6.56	8.36	27.0	1.80	10.8	47.4	16.6
60 x 60	2.0	3.56	4.54	25.1	2.35	8.38	39.8	12.6
	2.5	4.39	5.59	30.3	2.33	10.1	48.7	15.2
	3.0	5.19	6.61	35.1	2.31	11.7	57.1	17.7
	4.0	6.71	8.55	43.6	2.26	14.5	72.6	22.0
	5.0	8.13	10.4	50.5	2.21	16.8	86.4	25.6
	6.0	9.45	12.0	56.1	2.16	18.7	98.4	28.6
	6.3	9.55	12.2	54.4	2.11	18.1	100	28.8
70 x 70	2.0	4.19	5.34	40.7	2.76	11.6	64.0	17.5
	2.5	5.17	6.59	49.4	2.74	14.1	78.5	21.2
	3.0	6.13	7.81	57.5	2.71	16.4	92.4	24.7
	4.0	7.97	10.1	72.1	2.67	20.6	119	31.1
	5.0	9.70	12.4	84.6	2.62	24.2	142	36.6
	6.0	11.3	14.4	95.2	2.57	27.2	163	41.4
	6.3	11.5	14.7	93.8	2.53	26.8	168	42.1
80 x 80	3.0	7.07	9.01	87.8	3.12	22.0	140	33.0
	4.0	9.22	11.7	111	3.07	27.8	180	41.8
	5.0	11.3	14.4	131	3.03	32.9	218	49.7
	6.0	13.2	16.8	149	2.98	37.3	252	56.6
	6.3	13.5	17.2	149	2.94	37.1	261	57.9
	8.0	16.4	20.8	168	2.84	42.1	307	66.6

Cold Formed Welded Structural Square Hollow Sections

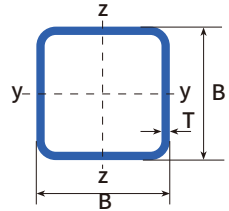
冷成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
90 x 90	3.0	8.01	10.2	127	3.53	28.3	201	42.5
	4.0	10.5	13.3	162	3.48	36.0	261	54.2
	5.0	12.8	16.4	193	3.43	42.9	316	64.7
	6.0	15.1	19.2	220	3.39	49.0	368	74.2
	6.3	15.5	19.7	221	3.35	49.1	382	76.2
	8.0	18.9	24.0	255	3.25	56.6	456	88.8
100 x 100	3.0	8.96	11.4	177	3.94	35.4	279	53.2
	4.0	11.7	14.9	226	3.89	45.3	362	68.1
	5.0	14.4	18.4	271	3.84	54.2	440	81.7
	6.0	17.0	21.6	311	3.79	62.3	514	94.1
	6.3	17.5	22.2	314	3.76	62.8	536	97.0
	8.0	21.4	27.2	366	3.67	73.2	645	114
	10.0	25.6	32.6	411	3.55	82.2	750	130
	12.0	28.3	36.1	408	3.36	81.6	794	136
	12.5	29.1	37.0	410	3.33	82.1	804	137
110 x 110	3.0	9.90	12.6	238	4.35	43.3	374	65.1
	4.0	13.0	16.5	306	4.30	55.6	486	83.6
	5.0	16.0	20.4	368	4.25	66.9	594	101
	6.0	18.9	24.0	425	4.20	77.2	695	116
	6.3	19.4	24.8	430	4.17	78.2	726	120
	8.0	23.9	30.4	506	4.08	91.9	879	143
	10.0	28.7	36.6	575	3.96	105	1032	164
	12.0	32.1	40.9	585	3.78	106	1120	175
	12.5	33.0	42.0	591	3.75	107	1139	178
120 x 120	4.0	14.2	18.1	402	4.71	67.0	637	101
	5.0	17.5	22.4	485	4.66	80.9	778	122
	6.0	20.7	26.4	562	4.61	93.7	913	141
	6.3	21.4	27.3	572	4.58	95.3	955	146
	8.0	26.4	33.6	677	4.49	113	1163	175
	10.0	31.8	40.6	777	4.38	129	1376	203
	12.0	35.8	45.7	806	4.20	134	1519	219
	12.5	36.9	47.0	817	4.17	136	1551	223
130 x 130	4.0	15.5	19.7	517	5.12	79.5	815	119
	5.0	19.1	24.4	626	5.07	96.3	998	145
	6.0	22.6	28.8	727	5.02	112	1174	168
	6.3	23.4	29.8	741	4.99	114	1229	175
	8.0	28.9	36.8	883	4.90	136	1502	210
	10.0	35.0	44.6	1021	4.79	157	1788	245
	12.0	39.6	50.5	1075	4.62	165	1999	268
	12.5	40.9	52.0	1093	4.58	168	2047	274
140 x 140	4.0	16.8	21.3	652	5.52	93.1	1023	140
	5.0	20.7	26.4	791	5.48	113	1256	170
	6.0	24.5	31.2	920	5.43	131	1479	198
	6.3	25.4	32.3	941	5.39	134	1550	205
	8.0	31.4	40.0	1127	5.30	161	1901	248
	10.0	38.1	48.6	1312	5.20	187	2274	291
	12.0	43.4	55.3	1398	5.03	200	2568	322
	12.5	44.8	57.0	1425	5.00	204	2635	329

Cold Formed Welded Structural Square Hollow Sections

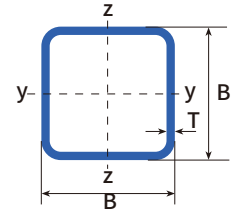
冷成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
150 x 150	4.0	18.0	22.9	808	5.93	108	1265	162
	5.0	22.3	28.4	982	5.89	131	1554	197
	6.0	26.4	33.6	1146	5.84	153	1833	230
	6.3	27.4	34.8	1174	5.80	156	1922	239
	8.0	33.9	43.2	1412	5.71	188	2364	289
	10.0	41.3	52.6	1653	5.61	220	2839	341
	12.0	47.1	60.1	1780	5.44	237	3231	380
	12.5	48.7	62.0	1817	5.41	242	3322	389
160 x 160	4.0	19.3	24.5	987	6.34	123	1514	185
	5.0	23.8	30.4	1202	6.29	150	1896	226
	6.0	28.3	36.0	1405	6.25	176	2239	264
	6.3	29.3	37.4	1442	6.21	180	2349	275
	8.0	36.5	46.4	1741	6.12	218	2897	334
	10.0	44.4	56.6	2048	6.02	256	3490	395
	12.0	50.9	64.9	2224	5.86	278	3997	443
	12.5	52.6	67.0	2275	5.83	284	4115	455
175 x 175	4.0	21.2	26.9	1303	6.95	149	2028	224
	5.0	26.2	33.4	1591	6.91	182	2498	273
	6.0	31.1	39.6	1864	6.86	213	2954	320
	6.3	32.3	41.1	1917	6.83	219	3100	333
	8.0	40.2	51.2	2325	6.74	266	3836	406
	10.0	49.1	62.6	2751	6.63	314	4641	484
	12.0	56.6	72.1	3020	6.47	345	5354	547
	12.5	58.5	74.5	3095	6.44	354	5521	562
180 x 180	4.0	21.8	27.7	1422	7.16	158	2210	237
	5.0	27.0	34.4	1737	7.11	193	2724	290
	6.0	32.1	40.8	2037	7.06	226	3223	340
	6.3	33.3	42.4	2096	7.03	233	3383	354
	8.0	41.5	52.8	2546	6.94	283	4189	432
	10.0	50.7	64.6	3017	6.84	335	5074	515
	12.0	58.5	74.5	3322	6.68	369	5866	584
	12.5	60.5	77.0	3406	6.65	378	6051	600
200x200	4.0	24.3	30.9	1968	7.97	197	3049	295
	5.0	30.1	38.4	2410	7.93	241	3763	362
	6.0	35.8	45.6	2833	7.88	283	4459	426
	6.3	37.2	47.4	2922	7.85	292	4682	444
	8.0	46.5	59.2	3566	7.76	357	5815	544
	10.0	57.0	72.6	4251	7.65	425	7072	651
	12.0	66.0	84.1	4730	7.50	473	8231	743
	12.5	68.3	87.0	4859	7.47	486	8502	766
	14.2	76.1	96.9	5261	7.37	526	9376	835
250x250	4.0	30.6	38.9	3907	10.0	313	7443	577
	5.0	38.0	48.4	4805	9.97	384	8842	681
	6.0	45.2	57.6	5672	9.92	454	9290	711
	6.3	47.1	60.0	5873	9.89	470	10251	781
	8.0	59.1	75.2	7229	9.80	578	11598	878
	10.0	72.7	92.6	8707	9.70	697	14197	1062
	12.0	84.8	108	9859	9.55	789	16692	1227

Cold Formed Welded Structural Square Hollow Sections

冷成型結構方管

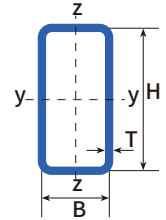


Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
250x250	12.5	88.0	112	10161	9.52	813	17283	1266
	14.2	98.3	125	11127	9.42	890	19222	1395
	16.0	109	139	12047	9.32	964	21148	1520
300x300	5.0	45.8	58.4	8417	12.0	561	12968	842
	6.0	54.7	69.6	9964	12.0	664	15434	997
	6.3	57.0	72.6	10342	11.9	689	16218	1042
	8.0	71.6	91.2	12801	11.8	853	20312	1293
	10.0	88.4	113	15519	11.7	1035	24966	1572
	12.0	104	132	17767	11.6	1184	29515	1829
	12.5	108	137	18348	11.6	1223	30601	1892
	14.2	121	154	20232	11.5	1349	34199	2096
350x350	6.0	64.1	81.6	16008	14.0	915	24683	1372
	6.3	66.9	85.2	16645	14.0	951	25939	1436
	8.0	84.2	107	20681	13.9	1182	32557	1787
	10.0	104	133	25189	13.8	1439	40127	2182
	12.0	123	156	29054	13.6	1660	47599	2552
	12.5	127	162	30045	13.6	1717	49394	2642
	14.2	143	182	33288	13.5	1902	55373	2939
	16.0	159	203	36511	13.4	2086	61483	3238
400x400	6.0	73.5	93.6	24104	16.0	1205	37039	1808
	6.3	76.8	97.8	25096	16.0	1255	38925	1892
	8.0	96.7	123	31269	15.9	1563	48934	2362
	10.0	120	153	38216	15.8	1911	60431	2892
	12.0	141	180	44319	15.7	2216	71844	3395
	12.5	147	187	45877	15.7	2294	74599	3518
	14.2	165	210	51004	15.6	2550	83807	3924
	16.0	184	235	56154	15.5	2808	93281	4336
500x500	8.0	122	155	62172	20.0	2487	96483	3750
	10.0	151	193	76341	19.9	3054	119469	4612
	12.5	186	237	92445	19.8	3698	147994	5643
	14.2	210	267	103249	19.7	4130	166723	6319
	16.0	235	299	114258	19.6	4570	186135	7013
	20.0	288	367	137094	19.3	5484	227732	8469



■ Cold Formed Welded Structural Rectangular Hollow Sections

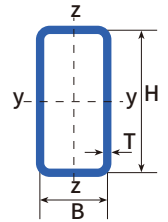
冷成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
40 x 20	2.0	1.68	2.14	4.05	1.34	1.38	0.793	2.02	1.34	3.45	2.36
	2.5	2.03	2.59	4.69	1.54	1.35	0.770	2.35	1.54	4.06	2.72
	3.0	2.36	3.01	5.21	1.68	1.32	0.748	2.60	1.68	4.56	3.00
	4.0	2.94	3.75	5.87	1.86	1.25	0.704	2.93	1.86	5.27	3.37
50 x 25	2.0	2.15	2.74	8.38	2.81	1.75	1.01	3.35	2.25	7.06	3.92
	2.5	2.62	3.34	9.89	3.28	1.72	0.991	3.95	2.62	8.43	4.60
	3.0	3.07	3.91	11.2	3.67	1.69	0.969	4.47	2.93	9.63	5.18
	4.0	3.88	4.95	13.1	4.23	1.63	0.924	5.25	3.38	11.6	6.05
50 x 30	2.0	2.31	2.94	9.54	4.29	1.80	1.21	3.81	2.86	9.77	4.84
	2.5	2.82	3.59	11.3	5.05	1.77	1.19	4.52	3.37	11.7	5.72
	3.0	3.30	4.21	12.8	5.70	1.75	1.16	5.13	3.80	13.5	6.49
	4.0	4.20	5.35	15.3	6.69	1.69	1.12	6.10	4.46	16.5	7.71
	5.0	4.99	6.36	16.9	7.33	1.63	1.07	6.75	4.88	18.8	8.55
60 x 30	2.0	2.62	3.34	15.0	5.08	2.12	1.23	5.02	3.39	12.6	5.88
	2.5	3.21	4.09	17.9	6.00	2.09	1.21	5.98	4.00	15.1	6.98
	3.0	3.77	4.81	20.5	6.80	2.06	1.19	6.83	4.53	17.5	7.95
	4.0	4.83	6.15	24.7	8.06	2.00	1.14	8.23	5.37	21.5	9.52
60 x 40	2.0	2.93	3.74	18.4	9.83	2.22	1.62	6.14	4.92	20.7	8.12
	2.5	3.60	4.59	22.1	11.7	2.19	1.60	7.36	5.87	25.1	9.72
	3.0	4.25	5.41	25.4	13.4	2.17	1.58	8.46	6.72	29.3	11.2
	4.0	5.45	6.95	31.0	16.3	2.11	1.53	10.3	8.14	36.7	13.7
	5.0	6.56	8.36	35.3	18.4	2.06	1.48	11.8	9.21	42.8	15.6
	6.0	7.56	9.63	38.5	19.9	2.00	1.44	12.8	9.97	47.8	17.1
	6.3	7.57	9.65	36.2	19.0	1.94	1.40	12.1	9.48	47.3	16.8
70 x 40	3.0	4.72	6.01	37.3	15.5	2.49	1.61	10.7	7.75	36.5	13.2
	4.0	6.08	7.75	46.0	18.9	2.44	1.56	13.1	9.44	45.8	16.2
	5.0	7.34	9.36	52.9	21.5	2.38	1.52	15.1	10.8	53.8	18.7
	6.0	8.50	10.8	58.2	23.5	2.32	1.47	16.6	11.7	60.2	20.5
	6.3	8.56	10.9	55.3	22.6	2.25	1.44	15.8	11.3	60.3	20.4
70 x 50	3.0	5.19	6.61	44.1	26.1	2.58	1.99	12.6	10.4	53.6	17.1
	4.0	6.71	8.55	54.7	32.2	2.53	1.94	15.6	12.9	68.1	21.2
	5.0	8.13	10.4	63.5	37.2	2.48	1.90	18.1	14.9	80.8	24.6
	6.0	9.45	12.0	70.5	41.1	2.42	1.85	20.1	16.5	91.7	27.5
	6.3	9.55	12.2	68.1	40.0	2.37	1.81	19.5	16.0	93.0	27.6
80 x 40	3.0	5.19	6.61	52.3	17.6	2.81	1.63	13.1	8.78	43.9	15.3
	4.0	6.71	8.55	64.8	21.5	2.75	1.59	16.2	10.7	55.2	18.8
	5.0	8.13	10.4	75.1	24.6	2.69	1.54	18.8	12.3	65.0	21.7
	6.0	9.45	12.0	83.3	27.0	2.63	1.50	20.8	13.5	73.0	24.0
	6.3	9.55	12.2	79.9	26.2	2.56	1.47	20.0	13.1	73.5	24.0
80 x 50	3.0	5.66	7.21	61.1	29.4	2.91	2.02	15.3	11.8	65.0	19.7
	4.0	7.34	9.35	76.4	36.5	2.86	1.98	19.1	14.6	82.7	24.6
	5.0	8.91	11.4	89.2	42.3	2.80	1.93	22.3	16.9	98.4	28.7
	6.0	10.4	13.2	99.8	47.0	2.75	1.88	24.9	18.8	112	32.1
	6.3	10.5	13.4	97.1	46.1	2.69	1.85	24.3	18.4	114	32.4

■ Cold Formed Welded Structural Rectangular Hollow Sections

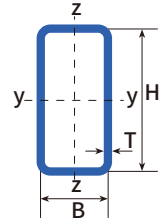
冷成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
80 x 60	3.0	6.13	7.81	700	44.9	3.00	2.40	17.5	15.0	88.3	24.1
	4.0	7.97	10.1	87.9	56.1	2.94	2.35	22.0	18.7	113	30.3
	5.0	9.70	12.4	103	65.7	2.89	2.31	25.8	21.9	136	35.7
	6.0	11.3	14.4	116	73.6	2.84	2.26	29.1	24.5	156	40.2
	6.3	11.5	14.7	114	72.7	2.79	2.22	28.6	24.2	160	40.9
90 x 50	3.0	6.13	7.81	81.9	32.7	3.24	2.05	18.2	13.1	76.7	22.4
	4.0	7.97	10.1	103	40.7	3.18	2.00	22.8	16.3	97.7	28.0
	5.0	9.70	12.4	121	47.4	3.12	1.96	26.8	18.9	116	32.7
	6.0	11.3	14.4	136	52.8	3.07	1.91	30.1	21.1	133	36.8
	6.3	11.5	14.7	133	52.1	3.01	1.88	29.5	20.9	136	37.2
100 x 40	3.0	6.13	7.81	92.3	21.7	3.44	1.67	18.5	10.8	59.0	19.4
	4.0	7.97	10.1	116	26.7	3.38	1.62	23.1	13.3	74.5	24.0
	5.0	9.70	12.4	136	30.8	3.31	1.58	27.1	15.4	87.9	27.9
	6.0	11.3	14.4	152	34.0	3.25	1.53	30.4	17.0	99.2	31.0
	6.3	11.5	14.7	148	33.4	3.17	1.51	29.6	16.7	101	31.2
100 x 50	3.0	6.60	8.41	106	36.1	3.56	2.07	21.3	14.4	88.6	25.0
	4.0	8.59	10.9	134	44.9	3.50	2.03	26.8	18.0	113	31.3
	5.0	10.5	13.4	158	52.5	3.44	1.98	31.6	21.0	135	36.8
	6.0	12.3	15.6	179	58.7	3.38	1.94	35.8	23.5	154	41.4
	6.3	12.5	15.9	176	58.2	3.32	1.91	35.1	23.3	158	42.1
100 x 60	3.0	7.07	9.01	121	54.6	3.66	2.46	24.1	18.2	122	30.6
	4.0	9.22	11.7	153	68.7	3.60	2.42	30.5	22.9	156	38.7
	5.0	11.3	14.4	181	80.8	3.55	2.37	36.2	26.9	188	45.8
	6.0	13.2	16.8	205	91.2	3.49	2.33	41.1	30.4	216	51.9
	6.3	13.5	17.2	203	90.9	3.44	2.30	40.7	30.3	223	53.0
	8.0	16.4	20.8	230	102	3.32	2.21	46.0	34.1	260	60.5
100 x 80	3.0	8.01	10.2	149	106	3.82	3.22	29.8	26.4	196	41.9
	4.0	10.5	13.3	189	134	3.77	3.17	37.9	33.5	254	53.4
	5.0	12.8	16.4	226	160	3.72	3.12	45.2	39.9	308	63.7
	6.0	15.1	19.2	258	182	3.67	3.08	51.7	45.5	357	73.0
	6.3	15.5	19.7	259	183	3.62	3.04	51.8	45.7	371	75.0
	8.0	18.9	24.0	298	210	3.52	2.96	59.6	52.5	442	87.3
120 x 40	3.0	7.07	9.01	148	25.8	4.05	1.69	24.7	12.9	74.6	23.5
	4.0	9.22	11.7	187	31.9	3.99	1.65	31.1	15.9	94.2	29.2
	5.0	11.3	14.4	221	36.9	3.92	1.60	36.8	18.5	111	34.0
	6.0	13.2	16.8	250	41.0	3.85	1.56	41.7	20.5	126	38.0
	6.3	13.5	17.2	245	40.7	3.78	1.54	40.9	20.3	128	38.5
120 x 50	3.0	7.54	9.61	169	42.7	4.19	2.11	28.1	17.1	113	30.3
	4.0	9.85	12.5	214	53.4	4.13	2.06	35.6	21.4	144	38.1
	5.0	12.1	15.4	254	62.6	4.07	2.02	42.3	25.0	172	44.9
	6.0	14.2	18.0	289	70.4	4.00	1.98	48.2	28.1	198	50.8
	6.3	14.5	18.5	286	70.3	3.94	1.95	47.7	28.1	203	51.7
120 x 60	3.0	8.01	10.2	189	64.4	4.30	2.51	31.5	21.5	156	37.1
	4.0	10.5	13.3	241	81.2	4.25	2.47	40.1	27.1	201	47.0
	5.0	12.8	16.4	287	96.0	4.19	2.42	47.8	32.0	242	55.8

Cold Formed Welded Structural Rectangular Hollow Sections

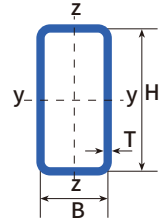
冷成型結構矩型鋼管



Outside dimension	Thickness	Linear mass	Cross-sectional area	Second moment of area	Second moment of area	Radius of gyration	Radius of gyration	Elastic section modulus	Elastic section modulus	Torsional inertia constant	Torsional modulus constant
外部尺寸	厚度	單位重量	橫截面積	截面慣性矩	截面慣性矩	回轉半徑	回轉半徑	彈性截面模量	彈性截面模量	扭轉慣性常數	扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
120 x 60	6.0	15.1	19.2	328	109	4.13	2.38	54.7	36.3	280	63.6
	6.3	15.5	19.7	327	109	4.07	2.35	54.5	36.4	289	65.1
	8.0	18.9	24.0	375	124	3.95	2.27	62.6	41.3	340	75.0
120 x 80	3.0	8.96	11.4	230	123	4.49	3.29	38.4	30.9	255	50.8
	4.0	11.7	14.9	295	157	4.44	3.24	49.1	39.3	331	64.9
	5.0	14.4	18.4	353	188	4.39	3.20	58.9	46.9	402	77.8
	6.0	17.0	21.6	406	215	4.33	3.15	67.7	53.8	469	89.4
	6.3	17.5	22.2	408	217	4.28	3.12	68.1	54.3	488	92.1
	8.0	21.4	27.2	476	252	4.18	3.04	79.3	62.9	584	108
	10.0	25.6	32.6	534	281	4.05	2.94	89.0	70.3	676	122
	12.0	28.3	36.1	525	279	3.81	2.78	87.4	69.8	708	127
120 x 100	3.0	9.90	12.6	271	205	4.64	4.04	45.2	41.1	367	64.5
	4.0	13.0	16.5	348	263	4.59	3.99	58.1	52.6	478	82.8
	5.0	16.0	20.4	419	316	4.54	3.94	69.9	63.3	583	100
	6.0	18.9	24.0	484	365	4.49	3.89	80.7	72.9	682	115
	6.3	19.4	24.8	490	370	4.45	3.86	81.7	73.9	712	119
	8.0	23.9	30.4	576	434	4.35	3.78	96.1	86.8	862	141
	10.0	28.7	36.6	655	492	4.23	3.67	109	98.5	1011	162
	12.0	32.1	40.9	665	502	4.03	3.50	111	100	1095	173
140 x 40	3.0	8.01	10.2	222	29.9	4.66	1.71	31.7	15.0	90.3	27.6
	4.0	10.5	13.3	282	37.1	4.59	1.67	40.2	18.6	114	34.4
	5.0	12.8	16.4	335	43.1	4.52	1.62	47.8	21.5	135	40.2
140 x 60	3.0	8.96	11.4	278	74.2	4.94	2.55	39.7	24.7	192	43.6
	4.0	11.7	14.9	356	93.8	4.88	2.51	50.8	31.3	247	55.4
	5.0	14.4	18.4	426	111	4.82	2.46	60.8	37.1	298	65.9
	6.0	17.0	21.6	489	126	4.76	2.42	69.9	42.1	344	75.3
	6.3	17.5	22.2	490	127	4.69	2.39	70.0	42.5	357	77.3
	8.0	21.4	27.2	569	146	4.57	2.31	81.2	48.6	421	89.5
140 x 70	3.0	9.43	12.0	306	105	5.05	2.95	43.7	29.9	252	51.7
	4.0	12.4	15.7	393	133	4.99	2.91	56.1	38.1	326	65.9
	5.0	15.2	19.4	471	159	4.94	2.86	67.4	45.3	395	78.9
	6.0	17.9	22.8	543	181	4.88	2.82	77.6	51.8	459	90.5
	6.3	18.5	23.5	546	184	4.82	2.79	78.1	52.4	477	93.2
	8.0	22.6	28.8	638	212	4.70	2.71	91.2	60.7	569	109
140 x 80	3.0	9.90	12.6	334	141	5.15	3.35	47.8	35.3	317	59.7
	4.0	13.0	16.5	430	180	5.10	3.30	61.4	45.1	412	76.5
	5.0	16.0	20.4	517	216	5.04	3.26	73.9	54.0	500	91.8
	6.0	18.9	24.0	597	248	4.98	3.21	85.3	62.0	584	106
	6.3	19.4	24.8	603	251	4.93	3.19	86.1	62.9	609	109
	8.0	23.9	30.4	708	293	4.82	3.10	101	73.3	731	129
	10.0	28.7	36.6	804	330	4.69	3.01	115	82.6	851	147
	12.0	32.1	40.9	807	335	4.44	2.86	115	83.8	907	155
	12.5	33.0	42.0	814	338	4.40	2.84	116	84.5	920	157

■ Cold Formed Welded Structural Rectangular Hollow Sections

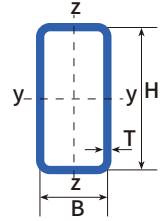
冷成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
150 x 50	3.0	8.96	11.4	299	52.6	5.12	2.15	39.8	21.1	150	38.3
	4.0	11.7	14.9	381	66.2	5.05	2.10	50.9	26.5	192	48.3
	5.0	14.4	18.4	456	77.9	4.99	2.06	60.8	31.1	230	57.1
	6.0	17.0	21.6	523	87.9	4.92	2.02	69.8	35.2	264	64.8
	6.3	17.5	22.2	523	88.5	4.85	1.99	69.7	35.4	272	66.3
150 x 100	3.0	11.3	14.4	461	248	5.65	4.15	61.4	49.5	507	81.4
	4.0	14.9	18.9	595	319	5.60	4.10	79.3	63.7	662	105
	5.0	18.3	23.4	719	384	5.55	4.05	95.9	76.8	809	127
	6.0	21.7	27.6	835	444	5.50	4.01	111	88.8	948	147
	6.3	22.4	28.5	848	453	5.45	3.98	113	90.5	992	152
	8.0	27.7	35.2	1008	536	5.35	3.90	134	107	1206	182
	10.0	33.4	42.6	1162	614	5.22	3.80	155	123	1426	211
	12.0	37.7	48.1	1207	642	5.01	3.65	161	128	1573	229
160 x 60	3.0	9.90	12.6	390	83.9	5.56	2.58	48.7	28.0	228	50.1
	4.0	13.0	16.5	500	106	5.50	2.54	62.5	35.5	294	63.8
	5.0	16.0	20.4	602	126	5.44	2.49	75.2	42.1	355	76.0
	6.0	18.9	24.0	694	144	5.37	2.45	86.7	48.0	410	87.0
	6.3	19.4	24.8	698	146	5.31	2.43	87.2	48.6	426	89.4
	8.0	23.9	30.4	816	168	5.18	2.35	102	55.9	503	104
160 x 80	3.0	10.8	13.8	464	159	5.80	3.39	58.0	39.8	380	68.6
	4.0	14.2	18.1	598	204	5.74	3.35	74.7	50.9	494	88.0
	5.0	17.5	22.4	722	244	5.68	3.30	90.2	61.0	601	106
	6.0	20.7	26.4	836	281	5.62	3.26	105	70.2	702	122
	6.3	21.4	27.3	846	286	5.57	3.24	106	71.4	732	126
	8.0	26.4	33.6	1001	335	5.46	3.16	125	83.7	882	150
	10.0	31.8	40.6	1146	380	5.32	3.06	143	95.0	1031	172
	12.0	35.8	45.7	1171	391	5.06	2.93	146	97.8	1112	183
	12.5	36.9	47.0	1185	396	5.02	2.90	148	98.9	1130	185
180 x 80	3.0	11.8	15.0	621	177	6.43	3.43	69.0	44.2	445	77.5
	4.0	15.5	19.7	802	227	6.37	3.39	89.1	56.7	578	100
	5.0	19.1	24.4	971	272	6.31	3.34	108	68.1	704	120
	6.0	22.6	28.8	1128	314	6.25	3.30	125	78.5	823	139
	6.3	23.4	29.8	1145	320	6.20	3.28	127	80.0	858	143
	8.0	28.9	36.8	1362	377	6.08	3.20	151	94.1	1036	170
	10.0	35.0	44.6	1570	429	5.94	3.10	174	107	1214	196
	12.0	39.6	50.5	1626	447	5.68	2.98	181	112	1320	211
	12.5	40.9	52.0	1650	453	5.63	2.95	183	113	1344	214
180 x 100	3.0	12.7	16.2	715	290	6.64	4.23	79.4	58.0	654	98.3
	4.0	16.8	21.3	926	374	6.59	4.18	103	74.8	854	127
	5.0	20.7	26.4	1124	452	6.53	4.14	125	90.4	1045	154
	6.0	24.5	31.2	1310	524	6.48	4.10	146	105	1227	179
	6.3	25.4	32.3	1335	536	6.43	4.07	148	107	1283	185
	8.0	31.4	40.0	1598	637	6.32	3.99	178	127	1565	222
	10.0	38.1	48.6	1859	736	6.19	3.89	207	147	1859	260
	12.0	43.4	55.3	1965	782	5.96	3.76	218	156	2073	285
	12.5	44.8	57.0	2001	796	5.92	3.74	222	159	2122	291

Cold Formed Welded Structural Rectangular Hollow Sections

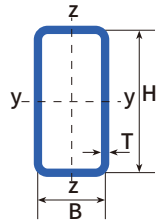
冷成型結構矩型鋼管



Outside dimension	Thickness	Linear mass	Cross-sectional area	Second moment of area	Second moment of area	Radius of gyration	Radius of gyration	Elastic section modulus	Elastic section modulus	Torsional inertia constant	Torsional modulus constant
外部尺寸	厚度	單位重量	橫截面面積	截面慣性矩	截面慣性矩	回轉半徑	回轉半徑	彈性截面模量	彈性截面模量	扭轉慣性常數	扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
200x100	3.0	13.7	17.4	924	318	7.29	4.28	92.4	63.6	754	110
	4.0	18.0	22.9	1200	411	7.23	4.23	120	82.2	985	142
	5.0	22.3	28.4	1459	497	7.17	4.19	146	99.4	1206	172
	6.0	26.4	33.6	1703	577	7.12	4.14	170	115	1417	200
	6.3	27.4	34.8	1739	591	7.06	4.12	174	118	1483	208
	8.0	33.9	43.2	2091	705	6.95	4.04	209	141	1811	250
	10.0	41.3	52.6	2444	818	6.82	3.94	244	164	2154	292
	12.0	47.1	60.1	2607	876	6.59	3.82	261	175	2415	322
	12.5	48.7	62.0	2659	892	6.55	3.79	266	178	2474	329
200x120	3.0	14.6	18.6	1041	477	7.48	5.06	104	79.4	1027	133
	4.0	19.3	24.5	1353	618	7.43	5.02	135	103	1345	172
	5.0	23.8	30.4	1649	750	7.37	4.97	165	125	1652	210
	6.0	28.3	36.0	1929	874	7.32	4.93	193	146	1947	245
	6.3	29.3	37.4	1976	898	7.27	4.90	198	150	2040	255
	8.0	36.5	46.4	2386	1079	7.17	4.82	239	180	2507	308
	10.0	44.4	56.6	2806	1262	7.04	4.72	281	210	3007	364
	12.0	50.9	64.9	3031	1368	6.84	4.59	303	228	3420	406
	12.5	52.6	67.0	3099	1397	6.80	4.57	310	233	3515	416
200x150	3.0	16.0	20.4	1215	785	7.72	6.20	122	105	1478	168
	4.0	21.2	26.9	1584	1021	7.67	6.16	158	136	1942	219
	5.0	26.2	33.4	1935	1245	7.62	6.11	193	166	2391	267
	6.0	31.1	39.6	2268	1457	7.56	6.06	227	194	2826	313
	6.3	32.3	41.1	2330	1499	7.53	6.04	233	200	2965	325
	8.0	40.2	51.2	2829	1816	7.43	5.95	283	242	3665	396
	10.0	49.1	62.6	3348	2143	7.31	5.85	335	286	4428	471
	12.0	56.6	72.1	3668	2353	7.14	5.71	367	314	5100	532
	12.5	58.5	74.5	3759	2410	7.10	5.69	376	321	5256	547
250x100	3.0	16.0	20.4	1606	389	8.87	4.36	128	77.8	1012	138
	4.0	21.2	26.9	2092	503	8.81	4.32	167	101	1323	179
	5.0	26.2	33.4	2554	610	8.75	4.28	204	122	1620	217
	6.0	31.1	39.6	2992	710	8.69	4.23	239	142	1905	253
	6.3	32.3	41.1	3066	730	8.63	4.21	245	146	1993	263
	8.0	40.2	51.2	3714	875	8.51	4.13	297	175	2439	317
	10.0	49.1	62.6	4384	1021	8.37	4.04	351	204	2910	373
	12.0	56.6	72.1	4757	1109	8.13	3.92	381	222	3288	415
	12.5	58.5	74.5	4868	1133	8.08	3.90	389	227	3374	425
250x150	4.0	24.3	30.9	2697	1234	9.33	6.32	216	165	2665	275
	5.0	30.1	38.4	3304	1508	9.28	6.27	264	201	3285	337
	6.0	35.8	45.6	3886	1768	9.23	6.23	311	236	3886	396
	6.3	37.2	47.4	4001	1825	9.18	6.20	320	243	4078	412
	8.0	46.5	59.2	4886	2219	9.08	6.12	391	296	5050	504
	10.0	57.0	72.6	5825	2634	8.96	6.02	466	351	6121	602
	12.0	66.0	84.1	6458	2925	8.77	5.90	517	390	7089	684
	12.5	68.3	87.0	6633	3002	8.73	5.87	531	400	7315	704

■ Cold Formed Welded Structural Rectangular Hollow Sections

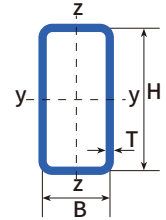
冷成型結構矩型鋼管



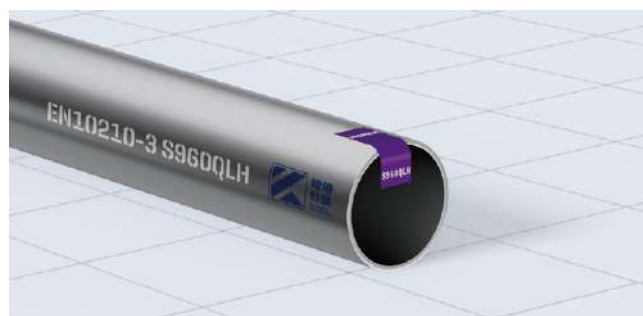
Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
250x150	14.2	76.1	96.9	7174	3240	8.61	5.78	574	432	8036	766
	16.0	83.8	107	7660	3453	8.47	5.69	613	460	8713	823
300x100	4.0	24.3	30.9	3320	595	10.4	4.39	221	119	1668	216
	5.0	30.1	38.4	4065	723	10.3	4.34	271	145	2044	262
	6.0	35.8	45.6	4777	842	10.2	4.30	318	168	2403	306
	6.3	37.2	47.4	4907	868	10.2	4.28	327	174	2515	318
	8.0	46.5	59.2	5978	1045	10.0	4.20	399	209	3080	385
	10.0	57.0	72.6	7106	1224	9.90	4.11	474	245	3681	455
	12.0	66.0	84.1	7808	1343	9.64	4.00	521	269	4178	509
	12.5	68.3	87.0	8010	1374	9.59	3.97	534	275	4292	521
300x150	4.0	27.4	34.9	4197	1447	11.0	6.44	280	193	3417	332
	5.0	34.0	43.4	5153	1771	10.9	6.39	344	236	4214	407
	6.0	40.5	51.6	6074	2080	10.8	6.35	405	277	4988	479
	6.3	42.2	53.7	6266	2150	10.8	6.32	418	287	5234	499
	8.0	52.8	67.2	7684	2623	10.7	6.25	512	350	6491	612
	10.0	64.8	82.6	9209	3125	10.6	6.15	614	417	7879	733
	12.0	75.4	96.1	10298	3498	10.4	6.03	687	466	9154	837
	12.5	78.1	99.5	10594	3595	10.3	6.01	706	479	9453	862
	14.2	87.2	111	11526	3897	10.2	5.92	768	520	10412	941
	16.0	96.4	123	12387	4174	10.04	5.83	826	557	11328	1015
300x200	4.0	30.6	38.9	5073	2737	11.4	8.38	338	274	5527	449
	5.0	38.0	48.4	6241	3361	11.4	8.34	416	336	6836	552
	6.0	45.2	57.6	7370	3962	11.3	8.29	491	396	8115	651
	6.3	47.1	60.0	7624	4104	11.3	8.27	508	410	8524	680
	8.0	59.1	75.2	9389	5042	11.2	8.19	626	504	10627	838
	10.0	72.7	92.6	11313	6058	11.1	8.09	754	606	12987	1012
	12.0	84.8	108	12788	6854	10.9	7.96	853	685	15236	1167
	12.5	88.0	112	13179	7060	10.8	7.94	879	706	15768	1205
	14.2	98.3	125	14428	7717	10.7	7.85	962	772	17507	1325
	16.0	108.9	138.8	15617	8340	10.6	7.75	1041	834	19223	1442
350x250	6.0	54.7	69.6	12457	7458	13.4	10.3	712	597	14554	967
	6.3	57.0	72.6	12923	7744	13.3	10.3	738	620	15291	1010
	8.0	71.6	91.2	16001	9573	13.2	10.2	914	766	19136	1253
	10.0	88.4	113	19407	11588	13.1	10.1	1109	927	23500	1522
	12.0	104	132	22197	13261	13.0	10.0	1268	1061	27750	1770
	12.5	108	137	22922	13690	12.9	9.99	1310	1095	28764	1830
	14.2	121	154	25277	15079	12.8	9.91	1444	1206	32117	2026
	16.0	134	171	27580	16434	12.7	9.81	1576	1315	35499	2220
400x200	5.0	45.8	58.4	12490	4312	14.6	8.60	624	431	10159	742
	6.0	54.7	69.6	14789	5092	14.6	8.55	739	509	12068	877
	6.3	57.0	72.6	15330	5286	14.5	8.53	766	529	12673	916
	8.0	71.6	91.2	18974	6517	14.4	8.45	949	652	15820	1133
	10.0	88.4	113	23003	7864	14.3	8.36	1150	786	19368	1373
	12.0	104	132	26248	8977	14.1	8.24	1312	898	22783	1591
	12.5	108	137	27100	9260	14.1	8.22	1355	926	23595	1644
	14.2	121	154	29858	10173	13.9	8.14	1493	1017	26264	1815
	16.0	134	171	32547	11056	13.8	8.05	1627	1106	28928	1984

■ Cold Formed Welded Structural Rectangular Hollow Sections

冷成型結構矩型鋼管

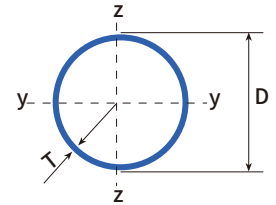


Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
400x300	6.0	64.1	81.6	19447	12557	15.4	12.4	972	837	23651	1342
	6.3	66.9	85.2	20213	13060	15.4	12.4	1011	871	24852	1404
	8.0	84.2	107	25122	16212	15.3	12.3	1256	1081	31179	1747
	10.0	104	133	30609	19726	15.2	12.2	1530	1315	38407	2132
	12.0	123	156	35284	22747	15.0	12.1	1764	1516	45528	2492
	12.5	127	162	36489	23517	15.0	12.0	1824	1568	47238	2580
	14.2	143	182	40431	26036	14.9	12.0	2022	1736	52927	2869
	16.0	159	203	44350	28535	14.8	11.9	2218	1902	58732	3159



Cold Formed Welded Structural Circular Hollow Sections

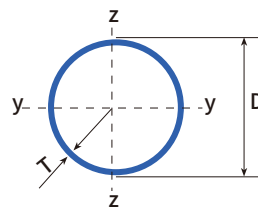
冷成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
21.3	2.0	0.952	1.21	0.571	0.686	0.536	1.14	1.07
	2.5	1.16	1.48	0.664	0.671	0.623	1.33	1.25
	3.0	1.35	1.72	0.741	0.656	0.696	1.48	1.39
26.9	2.0	1.23	1.56	1.22	0.883	0.907	2.44	1.81
	2.5	1.50	1.92	1.44	0.867	1.07	2.88	2.14
	3.0	1.77	2.25	1.63	0.852	1.21	3.27	2.43
33.7	2.0	1.56	1.99	2.51	1.12	1.49	5.02	2.98
	2.5	1.92	2.45	3.00	1.11	1.78	6.00	3.56
	3.0	2.27	2.89	3.44	1.09	2.04	6.88	4.08
	4.0	2.93	3.73	4.19	1.06	2.49	8.38	4.97
38	2.0	1.78	2.26	3.68	1.27	1.93	7.35	3.87
	2.5	2.19	2.79	4.41	1.26	2.32	8.83	4.65
	3.0	2.59	3.30	5.09	1.24	2.68	10.2	5.36
	4.0	3.35	4.27	6.26	1.21	3.29	12.5	6.59
	5.0	4.07	5.18	7.22	1.18	3.80	14.4	7.60
42.4	2.0	1.99	2.54	5.19	1.43	2.45	10.4	4.90
	2.5	2.46	3.13	6.26	1.41	2.95	12.5	5.91
	3.0	2.91	3.71	7.25	1.40	3.42	14.5	6.84
	4.0	3.79	4.83	8.99	1.36	4.24	18.0	8.48
	5.0	4.61	5.87	10.5	1.33	4.93	20.9	9.86
	6.0	5.39	6.86	11.7	1.30	5.51	23.3	11.0
	6.3	5.61	7.14	12.0	1.30	5.66	24.0	11.3
48.3	2.0	2.28	2.91	7.81	1.64	3.23	15.6	6.47
	2.5	2.82	3.60	9.46	1.62	3.92	18.9	7.83
	3.0	3.35	4.27	11.0	1.61	4.55	22.0	9.11
	4.0	4.37	5.57	13.8	1.57	5.70	27.5	11.4
	5.0	5.34	6.80	16.2	1.54	6.69	32.3	13.4
	6.0	6.26	7.97	18.2	1.51	7.53	36.4	15.1
	6.3	6.53	8.31	18.7	1.50	7.76	37.5	15.5
60.3	2.0	2.88	3.66	15.6	2.06	5.17	31.2	10.3
	2.5	3.56	4.54	19.0	2.05	6.30	38.0	12.6
	3.0	4.24	5.40	22.2	2.03	7.37	44.4	14.7
	4.0	5.55	7.07	28.2	2.00	9.34	56.3	18.7
	5.0	6.82	8.69	33.5	1.96	11.1	67.0	22.2
	6.0	8.03	10.2	38.2	1.93	12.7	76.4	25.3
	6.3	8.39	10.7	39.5	1.92	13.1	79.0	26.2
63.5	2.0	3.03	3.86	18.3	2.18	5.76	36.6	11.5
	2.5	3.76	4.79	22.3	2.16	7.03	44.6	14.1
	3.0	4.48	5.70	26.2	2.14	8.24	52.3	16.5
	4.0	5.87	7.48	33.2	2.11	10.5	66.5	20.9
	5.0	7.21	9.19	39.6	2.08	12.5	79.2	24.9
	6.0	8.51	10.8	45.3	2.04	14.3	90.6	28.5
	6.3	8.89	11.3	46.9	2.03	14.8	93.7	29.5
76.1	2.0	3.65	4.66	32.0	2.62	8.40	64.0	16.8
	2.5	4.54	5.78	39.2	2.60	10.3	78.4	20.6
	3.0	5.41	6.89	46.1	2.59	12.1	92.2	24.2

Cold Formed Welded Structural Circular Hollow Sections

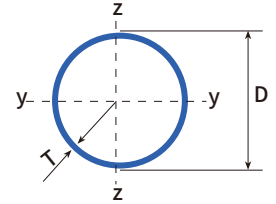
冷成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
76.1	4.0	7.11	9.06	59.1	2.55	15.5	118	31.0
	5.0	8.77	11.2	70.9	2.52	18.6	142	37.3
	6.0	10.4	13.2	81.8	2.49	21.5	164	43.0
	6.3	10.8	13.8	84.8	2.48	22.3	170	44.6
88.9	2.0	4.29	5.46	51.6	3.07	11.6	103	23.2
	2.5	5.33	6.79	63.4	3.06	14.3	127	28.5
	3.0	6.36	8.10	74.8	3.04	16.8	150	33.6
	4.0	8.38	10.7	96.3	3.00	21.7	193	43.3
	5.0	10.3	13.2	116	2.97	26.2	233	52.4
	6.0	12.3	15.6	135	2.94	30.4	270	60.7
	6.3	12.8	16.3	140	2.93	31.5	280	63.1
	8.0	16.0	20.3	168	2.87	37.8	336	75.6
	10.0	19.5	24.8	196	2.81	44.1	392	88.2
101.6	2.0	4.91	6.26	77.6	3.52	15.3	155	30.6
	2.5	6.11	7.78	95.6	3.50	18.8	191	37.6
	3.0	7.29	9.29	113	3.49	22.3	226	44.5
	4.0	9.63	12.3	146	3.45	28.8	293	57.6
	5.0	11.9	15.2	177	3.42	34.9	355	69.9
	6.0	14.1	18.0	207	3.39	40.7	413	81.4
	6.3	14.8	18.9	215	3.38	42.3	430	84.7
	8.0	18.5	23.5	260	3.32	51.1	519	102
	10.0	22.6	28.8	305	3.26	60.1	611	120
114.3	2.0	5.54	7.06	111	3.97	19.5	223	38.9
	2.5	6.89	8.78	137	3.95	24.0	275	48.0
	3.0	8.23	10.5	163	3.94	28.4	325	56.9
	4.0	10.9	13.9	211	3.90	36.9	422	73.9
	5.0	13.5	17.2	257	3.87	45.0	514	89.9
	6.0	16.0	20.4	300	3.83	52.5	600	105
	6.3	16.8	21.4	313	3.82	54.7	625	109
	8.0	21.0	26.7	379	3.77	66.4	759	133
	10.0	25.7	32.8	450	3.70	78.7	899	157
139.7	2.0	6.79	8.65	205	4.87	29.4	410	58.7
	2.5	8.46	10.78	254	4.85	36.3	507	72.6
	3.0	10.1	12.9	301	4.83	43.1	602	86.2
	4.0	13.4	17.1	393	4.80	56.2	786	112
	5.0	16.6	21.2	481	4.77	68.8	961	138
	6.0	19.8	25.2	564	4.73	80.8	1129	162
	6.3	20.7	26.4	589	4.72	84.3	1177	169
	8.0	26.0	33.1	720	4.66	103	1441	206
	10.0	32.0	40.7	862	4.60	123	1724	247
	12.5	39.2	50.0	1020	4.52	146	2040	292
168.3	2.5	10.2	13.0	448	5.86	53.2	895	106
	3.0	12.2	15.6	532	5.85	63.3	1065	127
	4.0	16.2	20.6	697	5.81	82.8	1394	166
	5.0	20.1	25.7	856	5.78	102	1712	203
	6.0	24.0	30.6	1009	5.74	120	2017	240

Cold Formed Welded Structural Circular Hollow Sections

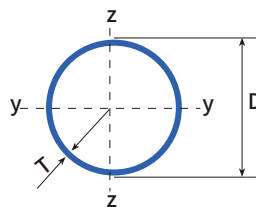
冷成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
168.3	6.3	25.2	32.1	1053	5.73	125	2107	250
	8.0	31.6	40.3	1297	5.67	154	2595	308
	10.0	39.0	49.7	1564	5.61	186	3128	372
	12.5	48.0	61.2	1868	5.53	222	3737	444
193.7	3.0	14.1	18.0	817	6.74	84.4	1634	169
	4.0	18.7	23.8	1073	6.71	111	2146	222
	5.0	23.3	29.6	1320	6.67	136	2640	273
	6.0	27.8	35.4	1560	6.64	161	3119	322
	6.3	29.1	37.1	1630	6.63	168	3260	337
	8.0	36.6	46.7	2016	6.57	208	4031	416
	10.0	45.3	57.7	2442	6.50	252	4883	504
	12.5	55.9	71.2	2934	6.42	303	5869	606
219.1	3.0	16.0	20.4	1189	7.64	109	2378	217
	4.0	21.2	27.0	1564	7.61	143	3128	286
	5.0	26.4	33.6	1928	7.57	176	3856	352
	6.0	31.5	40.2	2282	7.54	208	4564	417
	6.3	33.1	42.1	2386	7.53	218	4772	436
	8.0	41.6	53.1	2960	7.47	270	5919	540
	10.0	51.6	65.7	3598	7.40	328	7197	657
	12.5	63.7	81.1	4345	7.32	397	8689	793
	16.0	80.1	102	5297	7.20	483	10593	967
244.5	4.0	23.7	30.2	2186	8.50	179	4371	358
	5.0	29.5	37.6	2699	8.47	221	5397	441
	6.0	35.3	45.0	3199	8.43	262	6397	523
	6.3	37.0	47.1	3346	8.42	274	6692	547
	8.0	46.7	59.4	4160	8.37	340	8321	681
	10	57.8	73.7	5073	8.30	415	10146	830
	12.5	71.5	91.1	6147	8.21	503	12295	1006
	16.0	90.2	115	7533	8.10	616	15066	1232
273.0	4.0	26.5	33.8	3058	9.51	224	6116	448
	5.0	33.0	42.1	3781	9.48	277	7562	554
	6.0	39.5	50.3	4487	9.44	329	8974	657
	6.3	41.4	52.8	4696	9.43	344	9392	688
	8.0	52.3	66.6	5852	9.37	429	11703	857
	10.0	64.9	82.6	7154	9.31	524	14308	1048
	12.5	80.3	102	8697	9.22	637	17395	1274
	16.0	101	129	10707	9.10	784	21414	1569
323.9	4.0	31.6	40.2	5143	11.3	318	10286	635
	5.0	39.3	50.1	6369	11.3	393	12739	787
	6.0	47.0	59.9	7572	11.2	468	15145	935
	6.3	49.3	62.9	7929	11.2	490	15858	979
	8.0	62.3	79.4	9910	11.2	612	19820	1224
	10.0	77.4	98.6	12158	11.1	751	24317	1501
	12.5	96.0	122	14847	11.0	917	29693	1833
	14.2	108	138	16599	11.0	1025	33198	2050
	16.0	121	155	18390	10.9	1136	36780	2271

Cold Formed Welded Structural Circular Hollow Sections

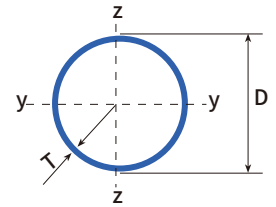
冷成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
355.6	5.0	43.2	55.1	8464	12.4	476	16927	952
	6.0	51.7	65.9	10071	12.4	566	20141	1133
	6.3	54.3	69.1	10547	12.4	593	21094	1186
	8.0	68.6	87.4	13201	12.3	742	26403	1485
	10.0	85.2	109	16223	12.2	912	32447	1825
	12.5	106	135	19852	12.1	1117	39704	2233
	14.2	120	152	22227	12.1	1250	44455	2500
	16.0	134	171	24663	12.0	1387	49326	2774
406.4	5.0	49.5	63.1	12701	14.2	625	25402	1250
	6.0	59.2	75.5	15128	14.2	745	30257	1489
	6.3	62.2	79.2	15849	14.1	780	31699	1560
	8.0	78.6	100	19874	14.1	978	39748	1956
	10.0	97.8	125	24476	14.0	1205	48952	2409
	12.5	121	155	30031	13.9	1478	60061	2956
	14.2	137	175	33685	13.9	1658	67371	3315
	16.0	154	196	37449	13.8	1843	74898	3686
457.0	6.0	66.7	85.0	21618	15.9	946	43236	1892
	6.3	70.0	89.2	22654	15.9	991	45308	1983
	8.0	88.6	112.9	28446	15.9	1245	56893	2490
	10.0	110.2	140.4	35091	15.8	1536	70183	3071
	12.0	131.7	167.8	41556	15.7	1819	83113	3637
	12.5	137.0	174.6	43145	15.7	1888	86290	3776
	16.0	174.0	221.7	53959	15.6	2361	107919	4723
508.0	6.0	74.3	94.6	29810	17.8	1174	59620	2347
	6.3	77.9	99.3	31246	17.7	1230	62493	2460
	8.0	98.6	126	39280	17.7	1546	78560	3093
	10.0	122.8	156	48520	17.6	1910	97040	3820
	12.0	146.8	187	57540	17.5	2265	115100	4530
	12.5	152.7	195	59755	17.5	2353	119511	4705
	16.0	194.1	247	74909	17.4	2949	149818	5898
610.0	6.0	89.4	114	51920	21.4	1702	103900	3405
	6.3	93.8	119	54440	21.4	1785	108900	3570
	8.0	118.8	151	68550	21.3	2248	137100	4495
	10.0	148.0	189	84850	21.2	2782	169700	5564
	12.0	177.0	225	100800	21.2	3305	201600	6611
	12.5	184.2	235	104800	21.1	3435	209500	6869
	16.0	234.4	299	131800	21.0	4321	263600	8641
711.0	6.0	104	133	82570	24.9	2323	165100	4645
	6.3	109	139	86590	24.9	2436	173200	4871
	8.0	139	177	109200	24.9	3071	218300	6141
	10.3	173	220	135300	24.8	3806	270600	7612
	12.0	207	264	161000	24.7	4529	322000	9057
	12.5	215	274	167300	24.7	4707	334700	9415
	16.0	274	349	211000	24.6	5936	422100	11870
	20.0	341	434	259400	24.4	7295	518700	14590
	25.0	423	539	317400	24.3	8927	614700	17850
	30.0	504	642	372800	24.1	10490	745600	21000

Cold Formed Welded Structural Circular Hollow Sections

冷成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	Wel (cm ³)	It (cm ⁴)	Ct (cm ³)
762.0	6.0	112	143	101800	26.7	2672	203600	5345
	6.3	117	150	106800	26.7	2803	213600	5605
	8.0	149	190	134700	26.7	3535	269400	7070
	10.0	185	236	167000	26.6	4384	334100	8768
	12.0	222	283	198900	26.5	5219	397700	10440
	12.5	231	294	206700	26.5	5426	413500	10900
	16.0	294	375	261000	26.4	6850	522000	13700
	20.0	366	466	321100	26.2	8427	642200	16860
	25.0	454	579	393500	26.1	10327	786900	20650
813.0	8.0	159	202	163900	28.5	4032	327800	8064
	10.0	198	252	203400	28.4	5003	406700	10010
	12.0	237	302	242200	28.3	5959	484500	11930
	12.5	247	314	251900	28.3	6196	503700	12400
	16.0	314	401	318200	28.2	7828	636400	15660
	20.0	391	498	392000	28.0	9641	783800	19280
	25.0	486	619	480900	27.9	11829	961700	23660
	30.0	579	738	566400	27.7	13933	1133000	27870
914.0	8.0	179	228	233700	32.0	5113	467300	10230
	10.0	223	284	290200	32.0	6349	580300	12700
	12.0	267	340	345890	31.9	7569	691800	15140
	12.5	278	354	359700	31.9	7871	719400	15740
	16.0	354	451	455100	31.8	9959	910300	19920
	20.0	441	562	561500	31.6	12286	1123000	24570
	25.0	548	698	690300	31.4	15105	1381000	30210
	30.0	654	833	814800	31.3	17829	1630000	35660
1016.0	8.0	199	253	321800	35.6	6334	643600	12670
	10.0	248	316	399900	35.6	7871	799700	15740
	12.0	297	378	477000	35.5	9389	954000	18780
	12.5	309	394	496100	35.5	9766	992300	19530
	16.0	395	503	628500	35.4	12372	1257000	24740
	20.0	491	626	776300	35.2	15282	1553000	30560
	25.0	611	778	956000	35.0	18821	1912000	37640
	30.0	729	929	1130000	34.9	22251	2261000	44500

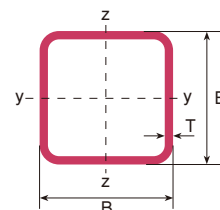


Hot Finished Hollow Sections to: EN10210

EN10210熱成型鋼管

Hot Finished Structural Square Hollow Sections

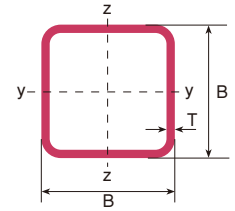
熱成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
20 x 20	2.0	1.13	1.40	0.74	0.73	0.74	1.21	1.07
	2.5	1.37	1.68	0.84	0.70	0.84	1.40	1.20
30 x 30	2.0	1.76	2.24	2.92	1.14	1.95	4.52	2.76
	3.0	2.47	3.14	3.74	1.09	2.50	6.16	3.60
	4.0	3.27	4.16	4.66	1.06	3.11	7.43	4.22
	5.0	3.93	5.00	5.17	1.02	3.45	8.35	4.59
	6.0	4.52	5.76	5.48	0.97	3.65	8.94	4.77
40 x 40	3.0	3.41	4.34	9.78	1.50	4.89	15.7	7.10
	3.2	3.61	4.60	10.2	1.49	5.11	16.5	7.42
	4.0	4.39	5.59	11.8	1.45	5.91	19.5	8.54
	5.0	5.28	6.73	13.4	1.41	6.68	22.5	9.60
	6.3	6.33	8.07	14.7	1.35	7.34	25.4	10.50
50 x 50	3.0	4.35	5.54	20.2	1.91	8.08	32.1	11.8
	3.2	4.62	5.88	21.2	1.90	8.49	33.8	12.4
	4.0	5.64	7.19	25.0	1.86	9.99	40.4	14.5
	5.0	6.85	8.73	28.9	1.82	11.6	47.6	16.7
	6.3	8.31	10.6	32.8	1.76	13.1	55.2	18.8
	8.0	10.0	12.8	36.0	1.68	14.4	62.3	20.6
	10.0	12.6	16.0	42.3	1.63	16.9	69.0	22.1
60 x 60	3.0	5.29	6.74	36.2	2.32	12.1	56.9	17.7
	3.2	5.62	7.16	38.2	2.31	12.7	60.2	18.6
	4.0	6.90	8.79	45.4	2.27	15.1	72.5	22.0
	5.0	8.42	10.7	53.3	2.23	17.8	86.4	25.7
	6.3	10.3	13.1	61.6	2.17	20.5	102	29.6
	8.0	12.5	14.5	65.8	2.13	21.9	110	31.6
	10.0	14.9	18.9	75.5	2.00	25.2	131	36.0
	12.5	17.3	22.1	78.0	1.88	26.0	139	37.0
70 x 70	3.2	6.63	8.44	62.3	2.72	17.8	97.6	26.1
	3.6	7.40	9.42	68.6	2.70	19.6	108	28.7
	4.0	8.15	10.4	74.7	2.68	21.3	118	31.2
	5.0	9.99	12.7	88.5	2.64	25.3	142	36.8
	6.3	12.3	15.6	104	2.58	29.7	169	42.9
	8.0	15.0	19.2	120	2.50	34.2	200	49.2
	10.0	18.0	22.9	133	2.41	38.0	227	54.4
	12.5	21.3	27.1	142	2.29	40.6	249	58.0
80 x 80	3.2	7.63	9.72	95	3.13	23.7	148	34.9
	3.6	8.53	10.9	105	3.11	26.2	164	38.5
	4.0	9.41	12.0	114	3.09	28.6	180	41.9
	5.0	11.6	14.7	137	3.05	34.2	217	49.8
	6.3	14.2	18.1	162	2.99	40.5	262	58.7
	8.0	17.5	22.4	189	2.91	47.3	312	68.3
	10.0	21.1	26.9	214	2.82	53.5	360	76.8
	12.5	25.2	32.1	234	2.70	58.6	404	83.8

Hot Finished Structural Square Hollow Sections

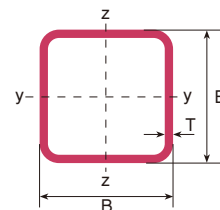
熱成型結構方管



Outside dimension 外部尺寸 BxB (mm)	Thickness 厚度 T (mm)	Linear mass 單位重量 M (kg/m)	Cross-sectional area 橫截面積 A (cm ²)	Second moment of area 截面慣性矩 I (cm ⁴)	Radius of gyration 回轉半徑 i (cm)	Elastic section modulus 彈性截面模量 W _{el} (cm ³)	Torsional inertia constant 扭轉慣性常數 I _t (cm ⁴)	Torsional modulus constant 扭轉模量常數 C _t (cm ³)
90 x 90	3.2	8.64	11.0	137	3.53	30.5	213	45.0
	3.6	9.66	12.3	152	3.52	33.8	237	49.7
	4.0	10.7	13.6	166	3.50	37.0	260	54.2
	5.0	13.1	16.7	200	3.45	44.4	316	64.8
	6.3	16.2	20.7	238	3.40	53.0	382	77.0
	8.0	20.1	25.6	281	3.32	62.6	459	90.5
	10.0	24.3	30.9	322	3.23	71.6	536	103
	12.5	29.1	37.1	359	3.11	79.8	612	114
100 x 100	3.2	9.64	12.3	191	3.94	38.2	295	56.3
	4.0	11.9	15.2	232	3.91	46.4	361	68.2
	5.0	14.7	18.7	279	3.86	55.9	439	81.8
	6.3	18.2	23.2	336	3.80	67.1	534	97.8
	8.0	22.6	28.8	400	3.73	79.9	646	116
	10.0	27.4	34.9	462	3.64	92.4	761	133
	12.5	33.0	42.1	522	3.52	104	879	150
	14.2	36.6	46.6	553	3.44	111	943	158
110 x 110	3.2	10.6	13.6	257	4.35	46.7	396	68.9
	4.0	13.2	16.8	313	4.32	56.8	485	83.7
	5.0	16.3	20.7	378	4.27	68.8	592	101
	6.3	20.2	25.7	456	4.21	83.0	722	121
	8.0	25.1	32.0	547	4.14	99.4	878	144
	10.0	30.6	38.9	637	4.05	116.0	1040	168
	12.5	37.0	47.1	728	3.93	132.0	1210	191
	14.2	41.0	52.3	776	3.85	141.0	1310	202
120 x 120	3.0	11.0	14.04	320	4.78	53.4	486	78.2
	3.2	11.6	14.8	336	4.76	56.0	517	82.8
	4.0	14.4	18.4	410	4.72	68.4	635	101
	5.0	17.8	22.7	498	4.68	83.0	777	122
	6.3	22.2	28.2	603	4.62	100	950	147
	8.0	27.6	35.2	726	4.55	121	1160	176
	10.0	33.7	42.9	852	4.46	142	1382	206
	12.5	40.9	52.1	982	4.34	164	1622	236
130 x 130	3.2	12.7	16.1	430	5.17	66.2	661	98
	4.0	15.7	20.0	526	5.13	81.0	813	120
	5.0	19.4	24.7	640	5.09	98.5	996	145
	6.3	24.1	30.7	778	5.03	120	1221	175
	8.0	30.1	38.4	941	4.95	145	1496	211
	10.0	36.8	46.9	1110	4.86	171	1790	248
	12.5	44.8	57.1	1288	4.75	198	2114	286
	14.2	49.9	63.6	1390	4.67	214	2306	308
140 x 140	3.2	13.7	17.4	541	5.58	77.3	829	114
	4.0	16.9	21.6	663	5.54	94.7	1021	140
	5.0	21.0	26.7	807	5.50	115	1253	170
	6.3	26.1	33.3	984	5.44	141	1540	206

Hot Finished Structural Square Hollow Sections

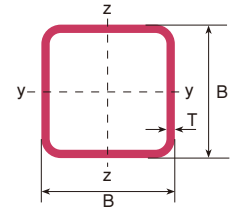
熱成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
140 x 140	8.0	32.6	41.6	1195	5.36	171	1892	249
	10.0	40.0	50.9	1416	5.27	202	2272	294
	12.5	48.7	62.1	1653	5.16	236	2695	341
	14.2	54.4	69.3	1790	5.08	256	2951	369
150 x 150	4.0	17.9	22.9	803	5.93	107	1268	162
	5.0	22.6	28.7	1002	5.90	134	1550	197
	6.3	28.1	35.8	1220	5.85	163	1910	240
	8.0	35.1	44.8	1490	5.77	199	2350	291
	10.0	43.1	54.9	1770	5.68	236	2830	344
	12.5	52.7	67.1	2080	5.57	277	3370	402
	14.2	58.9	75.0	2260	5.49	302	3710	436
	16.0	65.2	83.0	2430	5.41	324	4030	467
160x160	5.0	23.7	30.2	1194	6.29	149	1901	226
	6.3	30.1	38.3	1500	6.26	187	2330	275
	8.0	37.6	48.0	1830	6.18	229	2880	335
	10.0	46.3	58.9	2190	6.09	273	3480	398
	12.5	56.6	72.1	2580	5.98	322	4160	467
	14.2	63.3	80.7	2810	5.90	351	4580	508
	16.0	70.2	89.4	3030	5.82	379	4990	546
	20.0	84.6	108	3420	5.63	428	5760	614
180x180	5.0	26.9	34.2	1726	7.10	192	2731	290
	6.3	34.0	43.3	2170	7.07	241	3360	355
	8.0	42.7	54.4	2660	7.00	296	4160	434
	10.0	52.5	66.9	3190	6.91	355	5050	518
	12.5	64.4	82.1	3790	6.80	421	6070	613
	14.2	72.2	92.0	4150	6.72	462	6710	670
	16.0	80.2	102	4504	6.64	500	7343	724
	20.0	97.1	124	5160	6.46	573	8580	825
200x200	5.0	30.0	38.2	2397	7.92	240	3772	362
	6.3	38.0	48.4	3010	7.89	301	4650	444
	8.0	47.7	60.8	3710	7.81	371	5780	545
	10.0	58.8	74.9	4470	7.72	447	7030	655
	12.5	72.3	92.1	5340	7.61	534	8490	778
	14.2	81.1	103	5870	7.54	587	9420	854
	16.0	90.3	115	6390	7.46	639	10340	927
	20.0	110	140	7390	7.27	739	12180	1070
220x220	5.0	33.1	42.2	3222	8.74	293	5048	442
	6.0	41.9	53.4	4050	8.71	368	6240	544
	8.0	52.7	67.2	5000	8.63	455	7760	669
	10.0	65.1	82.9	6050	8.54	550	9420	807
	12.5	80.1	102	7250	8.43	659	11480	963
	14.2	90.1	115	8010	8.35	728	12770	1060
	16.0	100	128	8750	8.27	795	14050	1160
250x250	5.0	37.9	48.2	4785	9.96	383	7458	577
	6.0	45.7	58.2	5752	9.94	460	8825	681
	6.3	47.9	61.0	6010	9.93	481	9240	712
	8.0	60.3	76.8	7450	9.86	596	11530	880

Hot Finished Structural Square Hollow Sections

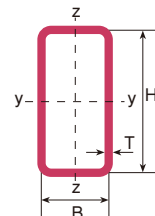
熱成型結構方管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
250x250	10.0	74.5	94.9	9060	9.77	724	14110	1060
	12.5	91.9	117	10920	9.66	873	17160	1280
	14.2	103	132	12090	9.58	967	19140	1410
	16.0	115	147	13270	9.50	1060	21140	1550
	20.0	141	180	15610	9.32	1250	25240	1810
260x260	6.3	49.9	63.5	6790	10.3	522	10420	773
	8.0	62.8	80.0	8420	10.3	648	13010	956
	10.0	77.7	98.9	10240	10.2	788	15930	1160
	12.5	95.8	122	12360	10.1	951	19410	1390
	14.2	108	137	13710	9.99	1050	21660	1540
	16.0	120	153	15060	9.91	1160	23940	1690
300x300	6.0	55.1	70.2	10080	12.0	672	15407	997
	6.3	57.8	73.6	10550	12.0	703	16140	1040
	8.0	72.8	92.8	13130	11.9	875	20190	1290
	10.0	90.2	115	16030	11.8	1070	24810	1580
	12.5	112	142	19440	11.7	1300	30330	1900
	14.2	126	160	21640	11.6	1440	33940	2110
	16.0	141	179	23850	11.5	1590	37620	2330
350x350	6.3	67.7	86.2	16920	14.0	967	25820	1440
	8.0	85.4	109	21130	13.9	1210	32380	1790
	10.0	106	135	25880	13.9	1480	39890	2190
	12.5	131	167	31540	13.7	1800	48930	2650
	14.2	148	189	35210	13.7	2010	54880	2960
	16.0	166	211	38940	13.6	2230	60990	3260
400x400	6.3	77.5	98.8	25460	16.1	1270	38760	1890
	8.0	97.9	125	31860	16.0	1590	48690	2360
	10.0	122	155	39130	15.9	1960	60090	2900
	12.5	151	192	47840	15.8	2390	73910	3530
	14.2	170	217	53530	15.7	2680	83030	3940
	16.0	191	243	59340	15.6	2970	92440	4362
	20.0	235	300	71535	15.4	3577	112489	5237

Hot Finished Structural Rectangular Hollow Sections

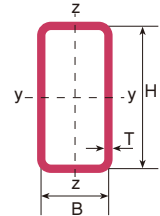
熱成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
50 x 30	2.5	2.89	3.68	11.8	5.22	1.79	1.19	4.73	3.48	11.7	5.73
	3.0	3.41	4.34	13.6	5.94	1.77	1.17	5.43	3.96	13.5	6.51
	3.2	3.61	4.60	14.2	6.20	1.76	1.16	5.68	4.13	14.2	6.80
	4.0	4.39	5.59	16.5	7.08	1.72	1.13	6.60	4.72	16.6	7.77
	5.0	5.28	6.73	18.7	7.89	1.67	1.08	7.49	5.26	19.0	8.67
	6.3	6.33	8.07	20.6	8.50	1.60	1.03	8.26	5.66	21.1	9.36
60 x 40	3.2	4.62	5.88	27.8	14.6	2.18	1.57	9.27	7.29	30.8	11.7
	4.0	5.64	7.19	32.8	17.0	2.14	1.54	10.9	8.52	36.6	13.7
	5.0	6.85	8.73	38.1	19.5	2.09	1.50	12.7	9.77	43.0	15.7
	6.3	8.31	10.6	43.4	21.9	2.02	1.44	14.5	11.0	49.5	17.6
	8.0	10.0	12.8	47.9	23.7	1.94	1.36	16.0	11.9	55.2	19.1
70 x 40	3.2	5.12	6.52	40.9	16.7	2.50	1.60	11.7	8.37	38.4	13.9
	4.0	6.27	7.99	48.5	19.6	2.46	1.57	13.9	9.82	45.8	16.3
	5.0	7.64	9.73	56.8	22.6	2.41	1.52	16.2	11.30	53.9	18.8
	6.3	9.30	11.80	65.4	25.5	2.35	1.47	18.7	12.80	62.4	21.2
	8.0	11.3	14.40	73.4	27.9	2.26	1.39	21.0	14.00	70.4	23.3
	10.0	13.3	16.90	78.5	29.0	2.15	1.31	22.4	14.50	75.3	24.3
70 x 50	3.2	5.62	7.16	48.0	28.2	2.59	1.99	13.7	11.3	56.5	18.0
	4.0	6.90	8.79	57.2	33.5	2.55	1.95	16.4	13.4	68.0	21.2
	5.0	8.42	10.7	67.3	39.0	2.50	1.91	19.2	15.6	80.8	24.8
	6.3	10.3	13.1	78.2	44.9	2.44	1.85	22.3	18.0	95.0	28.4
	8.0	12.5	16.0	88.8	50.3	2.36	1.78	25.4	20.1	110.0	31.9
	10.0	14.9	18.9	96.6	53.9	2.26	1.69	27.6	21.6	121	34.2
	12.5	17.3	22.1	100	55.0	2.13	1.58	28.6	22.0	127	34.9
80 x 40	3.0	5.29	6.74	54.2	18.0	2.84	1.63	13.6	9.0	43.8	15.3
	3.2	5.62	7.16	57.2	18.9	2.83	1.63	14.3	9.46	46.2	16.1
	4.0	6.90	8.79	68.2	22.2	2.79	1.59	17.1	11.1	55.2	18.9
	5.0	8.42	10.7	80.3	25.7	2.74	1.55	20.1	12.9	65.1	21.9
	6.3	10.3	13.1	93.3	29.2	2.67	1.49	23.3	14.6	75.6	24.8
	8.0	12.5	16.0	106	32.1	2.58	1.42	26.5	16.1	85.8	27.4
	10.0	14.9	18.9	115	33.7	2.47	1.33	28.8	16.9	92.5	28.9
80 x 50	3.2	6.12	7.80	66.6	31.8	2.92	2.02	16.7	12.7	68.5	20.8
	4.0	7.53	9.59	79.8	37.7	2.88	1.98	19.9	15.1	82.6	24.6
	5.0	9.21	11.7	94.4	44.1	2.84	1.94	23.6	17.7	98.4	28.8
	6.3	11.3	14.4	110	50.9	2.77	1.88	27.6	20.4	116	33.2
	8.0	13.8	17.6	127	57.4	2.69	1.81	31.7	23.0	135	37.5
	10.0	16.4	20.9	140	62.1	2.59	1.72	35.0	24.8	150	40.6
	12.5	19.3	24.6	148	64.1	2.45	1.61	37.0	25.6	159	42.0
80 x 60	3.2	6.63	8.44	76.1	48.5	3.00	2.40	19.0	16.2	93.3	25.5
	4.0	8.15	10.4	91.3	58.0	2.97	2.36	22.8	19.3	113	30.4
	5.0	9.99	12.7	108	68.4	2.92	2.32	27.1	22.8	135	35.8
	6.3	12.3	15.6	128	79.9	2.86	2.26	31.9	26.6	161	41.7
	8.0	15.0	19.2	148	91.5	2.78	2.19	36.9	30.5	189	47.7
	10.0	18.0	22.9	165	101	2.68	2.10	41.1	33.6	215	52.6
	12.5	21.3	27.1	177	107	2.55	1.99	44.2	35.6	234	55.8

Hot Finished Structural Rectangular Hollow Sections

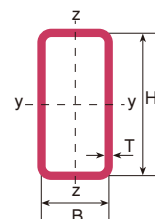
熱成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
90 x 50	3.2	6.63	8.44	89.1	35.3	3.25	2.04	19.8	14.1	80.9	23.6
	4.0	8.15	10.4	107	41.9	3.21	2.01	23.8	16.8	97.5	28.0
	5.0	10.0	12.7	127	49.2	3.16	1.97	28.3	19.7	116	32.8
	6.3	12.3	15.6	150	57.0	3.10	1.91	33.3	22.8	138	38.0
	8.0	15.0	19.2	174	64.6	3.01	1.84	38.6	25.8	160	43.2
	10.0	18.0	22.9	194	70.2	2.91	1.75	43.0	28.1	179	47.0
	12.5	21.3	27.1	208	73.2	2.77	1.64	46.2	29.3	192	49.2
100 x 50	3.0	6.71	8.54	110	36.8	3.58	2.08	21.9	14.7	88.4	25.0
	3.2	7.13	9.08	116	38.6	3.57	2.10	23.2	15.4	93.4	26.4
	4.0	8.78	11.2	140	46.2	3.53	2.03	27.9	18.5	113	31.4
	5.0	10.8	13.7	167	54.3	3.48	1.99	33.3	21.7	135	36.9
	6.3	13.3	16.9	197	63.0	3.42	1.93	39.4	25.2	160	42.9
	8.0	16.3	20.8	230	71.7	3.33	1.86	46.0	28.7	186	48.9
	10.0	19.6	24.9	259	78.4	3.22	1.77	51.8	31.4	209	53.6
100 x 60	3.0	7.18	9.14	124	55.7	3.68	2.47	24.7	18.6	121	30.7
	3.2	7.63	9.72	131	58.8	3.67	2.46	26.2	19.6	129	32.4
	4.0	9.41	12.0	158	70.5	3.63	2.43	31.6	23.5	156	38.7
	5.0	11.6	14.7	189	83.6	3.58	2.38	37.8	27.9	188	45.9
	6.3	14.2	18.1	225	98.1	3.52	2.33	45.0	32.7	224	53.8
	8.0	17.5	22.4	264	113	3.44	2.25	52.8	37.8	265	62.2
	10.0	21.1	26.9	299	126	3.33	2.16	59.9	42.1	304	69.3
100 x 80	3.0	8.2	10.44	154.3	109.1	3.84	3.23	30.9	27.3	195.2	42.0
	3.2	8.64	11.0	161	114	3.82	3.22	32.2	28.5	207	44.3
	4.0	10.7	13.6	195	138	3.79	3.18	39.0	34.4	253	53.4
	5.0	13.1	16.7	234	165	3.74	3.14	46.9	41.2	307	63.8
	6.3	16.2	20.7	280	196	3.68	3.08	56.0	49.0	371	75.8
	8.0	20.1	25.6	332	231	3.60	3.01	66.3	57.7	445	88.9
	10.0	24.3	30.9	381	263	3.51	2.92	76.2	65.8	519	101
120 x 50	3.0	7.72	9.84	176.5	44.0	4.23	2.11	29.4	17.6	112.4	30.4
	4.0	10.2	12.96	227.6	55.6	4.19	2.07	37.9	22.2	143.6	38.2
	5.0	12.6	16.0	275.1	65.9	4.14	2.03	45.9	26.4	171.9	45.1
	6.0	14.9	18.96	319.0	74.9	4.10	1.99	53.2	29.9	197.3	51.1
	8.0	19.3	24.64	369.5	89.3	4.01	1.90	66.1	35.7	240.1	60.6
	10.0	23.6	30.0	460.9	99.5	3.92	1.82	76.8	39.8	272.7	67.3
120 x 60	3.0	8.20	10.44	197	66.3	4.34	2.52	32.8	22.1	155.6	37.2
	3.2	8.64	11.0	205	69.2	4.32	2.51	34.2	23.1	165	39.2
	4.0	10.7	13.6	249	83.1	4.28	2.47	41.5	27.7	201	47.1
	5.0	13.1	16.7	299	98.8	4.23	2.43	49.9	32.9	242	55.9
	6.3	16.2	20.7	358	116	4.16	2.37	59.7	38.8	290	65.9
	8.0	20.1	25.6	425	135	4.08	2.30	70.8	45.0	344	76.6
	10.0	24.3	30.9	488	152	3.97	2.21	81.4	50.5	395	86.0
120 x 60	12.5	29.1	37.1	546	165	3.84	2.11	91.1	54.9	441	93.6

Hot Finished Structural Rectangular Hollow Sections

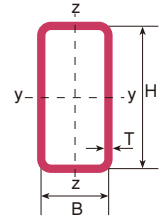
熱成型結構矩型鋼管



Outside dimension	Thickness	Linear mass	Cross-sectional area	Second moment of area	Second moment of area	Radius of gyration	Radius of gyration	Elastic section modulus	Elastic section modulus	Torsional inertia constant	Torsional modulus constant
外部尺寸	厚度	單位重量	橫截面面積	截面慣性矩	截面慣性矩	回轉半徑	回轉半徑	彈性截面模量	彈性截面模量	扭轉慣性常數	扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{e1yy} (cm ³)	W _{e1zz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
120 x 80	3.2	9.64	12.3	249	133	4.50	3.29	41.5	33.2	270	53.8
	4.0	11.9	15.2	303	161	4.46	3.25	50.4	40.2	330	65.0
	5.0	14.7	18.7	365	193	4.42	3.21	60.9	48.2	401	77.9
	6.3	18.2	23.2	440	230	4.36	3.15	73.3	57.6	487	92.9
	8.0	22.6	28.8	525	273	4.27	3.08	87.5	68.1	586	110
	10.0	27.4	34.9	609	313	4.18	2.99	102	78.1	687	126
	12.5	33.0	42.1	692	349	4.05	2.88	115	87.4	788	140
140 x 80	3.0	10.1	12.84	345	144.7	5.18	3.36	49.32	36.16	316	59.7
	3.2	10.6	13.6	361	152	5.16	3.34	51.6	37.9	336	63.2
	4.0	13.2	16.8	441	184	5.12	3.31	62.9	46.0	411	76.5
	5.0	16.3	20.7	534	221	5.08	3.27	76.3	55.3	499	91.9
	6.3	20.2	25.7	646	265	5.01	3.21	92.3	66.2	606	110
	8.0	25.1	32.0	776	314	4.93	3.14	111	78.5	733	130
	10.0	30.6	38.9	908	362	4.83	3.05	130	90.5	862	150
150 x 100	3.2	12.2	15.5	496	266	5.66	4.14	66.2	53.2	538	86.3
	4.0	15.1	19.2	607	324	5.63	4.11	81.0	64.8	660	105
	5.0	18.6	23.7	739	392	5.58	4.07	98.5	78.5	807	127
	6.3	23.1	29.5	898	474	5.52	4.01	120	94.8	986	153
	8.0	28.9	36.8	1087	569	5.44	3.94	145	114	1203	183
	10.0	35.3	44.9	1282	665	5.34	3.85	171	133	1432	214
	12.5	42.8	54.6	1488	763	5.22	3.74	198	153	1678	245
160 x 80	3.2	11.6	14.8	501	170	5.81	3.39	62.6	42.6	403	72.6
	4.0	14.4	18.4	612	207	5.77	3.35	76.5	51.7	493	88.1
	5.0	17.8	22.7	744	249	5.72	3.31	93.0	62.3	600	106
	6.3	22.2	28.2	903	299	5.66	3.26	113	74.8	730	127
	8.0	27.6	35.2	1091	356	5.57	3.18	136	89.0	883	151
	10.0	33.7	42.9	1284	411	5.47	3.10	161	103	1040	175
	12.5	40.9	52.1	1485	465	5.34	2.99	186	116	1203	198
180 x 100	3.2	13.7	17.4	770	311	6.65	4.23	85.6	62.2	693	104
	4.0	16.9	21.6	945	379	6.61	4.19	105	75.9	852	127
	5.0	21.0	26.7	1153	460	6.57	4.15	128	92.0	1042	154
	6.3	26.1	33.3	1407	557	6.50	4.09	156	111	1276	186
	8.0	32.6	41.6	1713	671	6.42	4.02	190	134	1560	224
	10.0	40.0	50.9	2036	787	6.32	3.93	226	157	1862	263
	12.5	48.7	62.1	2385	908	6.20	3.82	265	182	2190	303
200 x 100	14.2	54.4	69.3	2589	974	6.11	3.75	288	195	2383	325
	16.0	60.1	76.6	2780	1030	6.02	3.67	309	207	2560	346
	4.0	18.2	23.2	1223	416	7.26	4.24	122	83	983	142
	5.0	22.6	28.7	1495	505	7.21	4.19	149	101	1204	172
	6.3	28.1	35.8	1829	613	7.15	4.14	183	123	1475	208
	8.0	35.1	44.8	2234	739	7.06	4.06	223	148	1804	251
	10.0	43.1	54.9	2664	869	6.96	3.98	266	174	2155	295
200 x 100	12.5	52.7	67.1	3136	1004	6.84	3.87	314	201	2540	341
	14.2	58.9	75.0	3416	1080	6.75	3.80	342	216	2768	367
	16.0	65.2	83.0	3678	1147	6.66	3.72	368	229	2979	391

Hot Finished Structural Rectangular Hollow Sections

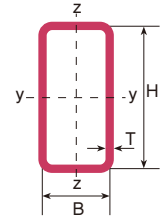
熱成型結構矩型鋼管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{elyy} (cm ³)	W _{elzz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
200x120	4.0	19.5	24.8	1376	626	7.45	5.02	138	104	1343	173
	5.0	24.1	30.7	1685	762	7.40	4.98	168	127	1648	210
	6.3	30.1	38.3	2065	929	7.34	4.92	207	155	2028	255
	8.0	37.6	48.0	2529	1128	7.26	4.85	253	188	2494	310
	10.0	46.3	58.9	3026	1337	7.17	4.76	303	223	3000	367
	12.5	56.6	72.1	3576	1562	7.04	4.66	358	260	3568	428
	14.2	63.3	80.7	3907	1693	6.96	4.58	391	282	3914	464
	16.0	70.2	89.4	4220	1810	6.87	4.50	422	302	4250	497
200x150	4.0	21.3	27.2	1607	1034	7.69	6.17	161	138	1938	219
	5.0	26.5	33.7	1970	1265	7.64	6.12	197	169	2386	267
	6.3	33.0	42.1	2420	1549	7.58	6.07	242	207	2947	326
	8.0	41.4	52.8	2971	1894	7.50	5.99	297	253	3643	398
	10.0	51.0	64.9	3568	2264	7.41	5.91	357	302	4409	475
	12.5	62.5	79.6	4236	2673	7.30	5.80	424	356	5286	559
	14.2	70.0	89.2	4644	2919	7.22	5.72	464	389	5833	610
	16.0	77.7	99.0	5040	3150	7.13	5.64	504	420	6370	658
250x100	4.0	21.2	26.9	2092	503	8.81	4.32	167	101	1323	179
	5.0	26.1	33.2	2534	607	8.73	4.27	203	121	1623	217
	6.3	33.0	42.1	3210	751	8.73	4.22	257	150	1980	264
	8.0	41.4	52.8	3940	909	8.64	4.15	315	182	2430	319
	10.0	51.0	64.9	4730	1070	8.54	4.06	379	214	2910	376
	12.5	62.5	79.6	5620	1240	8.41	3.96	450	249	3440	438
	14.2	70.0	89.2	6160	1340	8.31	3.88	493	269	3750	473
	16.0	77.7	99.0	6690	1430	8.22	3.80	535	287	4050	505
250x150	4.0	24.3	30.9	2697	1234	9.33	6.32	216	165	2665	275
	5.0	30.0	38.2	3284	1501	9.27	6.27	263	200	3292	337
	6.3	38.0	48.4	4143	1874	9.25	6.22	331	250	4050	413
	8.0	47.7	60.8	5111	2300	9.17	6.15	409	306	5020	506
	10.0	58.8	74.9	6170	2750	9.08	6.06	494	367	6090	605
	12.5	72.3	92.1	7390	3270	8.96	5.96	591	435	7330	717
	14.2	81.1	103	8140	3580	8.87	5.88	651	477	8100	784
	16.0	90.3	115	8880	3870	8.79	5.80	710	516	8870	849
260x140	5.0	30.0	38.2	3449	1331	9.45	5.90	265	190	3091	326
	6.3	38.0	48.4	4350	1660	9.49	5.86	335	237	3800	399
	8.0	47.7	60.8	5370	2030	9.40	5.78	413	290	4700	488
	10.0	58.8	74.9	6490	2430	9.31	5.70	499	347	5700	584
	12.5	72.3	92.1	7770	2880	9.18	5.59	597	411	6840	690
	14.2	81.1	103	8560	3140	9.10	5.52	658	449	7560	754
	16.0	90.3	115	9340	3400	9.01	5.44	718	486	8260	815
260x180	5.0	33.5	42.7	4182	2378	9.89	7.46	322	264	4686	426
	6.3	41.9	53.4	5170	2930	9.83	7.40	397	325	5810	524
	8.0	52.7	67.2	6390	3610	9.75	7.33	492	401	7220	644
	10.0	65.1	82.9	7740	4350	9.66	7.24	595	483	8800	775
	12.5	80.1	102	9300	5200	9.54	7.13	715	577	10640	924
	14.2	90.1	115	10280	5720	9.46	7.06	791	635	11820	1020
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Hot Finished Structural Rectangular Hollow Sections

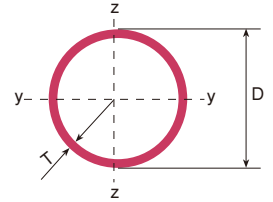
熱成型結構矩型鋼管



Outside dimension	Thickness	Linear mass	Cross-sectional area	Second moment of area	Second moment of area	Radius of gyration	Radius of gyration	Elastic section modulus	Elastic section modulus	Torsional inertia constant	Torsional modulus constant
外部尺寸	厚度	單位重量	橫截面積	截面慣性矩	截面慣性矩	回轉半徑	回轉半徑	彈性截面模量	彈性截面模量	扭轉慣性常數	扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _{yy} (cm ⁴)	I _{zz} (cm ⁴)	i _{yy} (cm)	i _{zz} (cm)	W _{el} _{yy} (cm ³)	W _{el} _{zz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
300x100	5.0	30.0	38.2	4036	720	10.3	4.34	269	144	2048	262
	6.3	38.0	48.4	5110	890	10.3	4.29	341	178	2500	319
	8.0	47.7	60.8	6310	1080	10.2	4.21	420	216	3070	387
	10.0	58.8	74.9	7610	1280	10.1	4.13	508	255	3680	458
	12.5	72.3	92.1	9100	1490	9.94	4.02	607	297	4350	534
	14.2	81.1	103	10030	1610	9.85	3.94	669	321	4750	578
	16.0	90.3	115	10930	1720	9.75	3.87	729	344	5140	619
300x150	5.0	33.9	43.2	5124	1764	10.9	6.39	342	235	4223	407
	6.3	43.1	54.9	6521	2212	10.9	6.35	435	295	5200	500
	8.0	54.0	68.8	8010	2700	10.8	6.27	534	360	6450	613
	10.0	66.7	84.9	9720	3250	10.7	6.18	648	433	7840	736
	12.5	82.1	105	11690	3860	10.6	6.07	779	514	9450	874
	14.2	92.3	118	12930	4177	10.5	6.00	862	557	10457	959
	16.0	103	131	14160	4516	10.4	5.90	944	602	11460	1040
300x200	5.0	37.9	48.2	6212	3348	11.4	8.33	414	335	6849	552
	6.3	47.9	61.0	7830	4190	11.3	8.29	522	419	8480	681
	8.0	60.3	76.8	9720	5180	11.3	8.22	648	518	10560	840
	10.0	74.5	94.9	11820	6280	11.2	8.13	788	628	12910	1020
	12.5	91.9	117	14270	7540	11.0	8.02	952	754	15680	1220
	14.2	103	132	15830	8330	11.0	7.95	1060	833	17460	1340
	16.0	115	147	17390	9110	10.9	7.87	1160	911	19250	1470
	20.0	141	180	20520	10650	10.7	7.70	1370	1065	22910	1710
350x250	6.3	57.8	73.6	13200	7890	13.4	10.4	754	631	15210	1010
	8.0	72.8	92.8	16450	9800	13.3	10.3	940	784	19030	1250
	10.0	90.2	115	20100	11940	13.2	10.2	1150	955	23350	1530
	12.5	112	142	24420	14440	13.1	10.1	1400	1160	28530	1840
	14.2	126	160	27200	16050	13.0	10.0	1550	1280	31890	2040
	16.0	141	179	30010	17650	12.9	9.93	1710	1410	35330	2250
400x200	6.3	57.8	73.6	15700	5380	14.6	8.55	785	538	12610	917
	8.0	72.8	92.8	19560	6660	14.5	8.47	978	666	15730	1130
	10.0	90.2	115	23910	8080	14.4	8.39	1200	808	19260	1380
	12.5	112	142	29060	9740	14.3	8.28	1450	974	23440	1660
	14.2	126	160	32380	10780	14.2	8.21	1620	1080	26140	1830
	16.0	141	179	35740	11820	14.1	8.13	1790	1180	28870	2010
450x250	6.3	67.7	86.2	24070	9760	16.7	10.6	1070	781	21630	1310
	8.0	85.4	109	30080	12140	16.6	10.6	1340	971	27080	1630
	10.0	106	135	36890	14820	16.5	10.5	1640	1190	33280	1990
	12.5	131	167	45030	17970	16.4	10.4	2000	1440	40720	2410
	14.2	148	189	50310	20000	16.3	10.3	2240	1600	45580	2680
	16.0	166	211	55710	22040	16.2	10.2	2480	1760	50550	2950
500x300	6.3	77.5	98.8	34920	15980	18.8	12.7	1400	1070	33920	1770
	8.0	97.9	125	43730	19950	18.7	12.6	1750	1330	42560	2200
	10.0	122	155	53760	24440	18.6	12.6	2150	1630	52450	2700
	12.5	151	192	65810	29780	18.5	12.5	2630	1990	64390	3280
	14.2	170	217	73700	33240	18.4	12.4	2950	2220	72240	3660
	16.0	191	243	81780	36770	18.3	12.3	3270	2450	80330	4040
	20.0	235	300	98780	44080	18.2	12.1	3950	2940	97450	4840

Hot Finished Structural Circular Hollow Sections

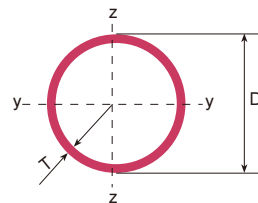
熱成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
26.9	3.2	1.87	2.38	1.70	0.85	1.27	3.41	2.53
33.7	2.6	1.99	2.54	3.10	1.10	1.84	6.19	3.67
	3.2	2.41	3.07	3.61	1.08	2.14	7.21	4.28
	4.0	2.93	3.73	4.19	1.06	2.49	8.38	4.97
	5.0	3.54	4.51	4.78	1.03	2.84	9.57	5.68
42.4	3.2	3.09	3.94	7.62	1.39	3.59	15.2	7.19
	4.0	3.79	4.83	8.99	1.36	4.24	18.0	8.48
	5.0	4.61	5.87	10.46	1.33	4.93	20.9	9.86
48.3	3.2	3.56	4.53	11.59	1.60	4.80	23.17	9.60
	4.0	4.37	5.57	13.77	1.57	5.70	27.54	11.40
	5.0	5.34	6.80	16.2	1.54	6.69	32.3	13.4
	6.3	6.53	8.31	18.7	1.50	7.76	37.5	15.5
	8.0	7.95	10.1	21.4	1.45	8.85	42.7	17.7
60.3	3.2	4.51	5.74	23.5	2.02	7.78	46.9	15.6
	4.0	5.55	7.07	28.2	2.00	9.34	56.3	18.7
	5.0	6.82	8.69	33.5	1.96	11.1	67.0	22.2
	6.3	8.39	10.7	39.5	1.92	13.1	79.0	26.2
	8.0	10.3	13.1	46.0	1.87	15.3	92.0	30.5
	10.0	12.4	15.8	52.0	1.81	17.2	104	34.5
76.1	3.2	5.75	7.33	48.8	2.58	12.8	97.6	25.6
	4.0	7.11	9.06	59.1	2.55	15.5	118	31.0
	5.0	8.77	11.2	70.9	2.52	18.6	142	37.3
	6.3	10.8	13.8	84.8	2.48	22.3	170	44.6
	8.0	13.4	17.1	101	2.42	26.4	201	52.9
	10.0	16.3	20.8	116	2.36	30.5	232	61.0
	12.5	19.6	25.0	131	2.29	34.5	262	68.9
88.9	3.2	6.76	8.62	79.2	3.03	17.8	158	35.6
	4.0	8.38	10.7	96.3	3.00	21.7	193	43.3
	5.0	10.3	13.2	116	2.97	26.2	233	52.4
	6.3	12.8	16.3	140	2.93	31.5	280	63.1
	8.0	16.0	20.3	168	2.87	37.8	336	75.6
	10.0	19.5	24.8	196	2.81	44.1	392	88.2
	12.5	23.6	30.0	225	2.74	50.6	450	101
101.6	3.2	7.77	9.89	120	3.48	23.6	240	47.2
	4.0	9.63	12.3	146	3.45	28.8	293	57.6
	5.0	11.9	15.2	177	3.42	34.9	355	69.9
	6.3	14.8	18.9	215	3.38	42.3	430	84.7
	8.0	18.5	23.5	260	3.32	51.1	519	102
	10.0	22.6	28.8	305	3.26	60.1	611	120
	12.5	27.5	35.0	354	3.18	69.7	708	139
114.3	3.2	8.77	11.2	172	3.93	30.2	345	60.4
	4.0	10.9	13.9	211	3.90	36.9	422	73.9
	5.0	13.5	17.2	257	3.87	45.0	514	89.9
	6.3	16.8	21.4	313	3.82	54.7	625	109
	8.0	21.0	26.7	379	3.77	66.4	759	133
	10.0	25.7	32.8	450	3.70	78.7	899	157
	12.5	31.4	40.0	526	3.63	92.0	1051	184
	14.2	35.1	44.7	571	3.57	99.8	1141	200

Hot Finished Structural Circular Hollow Sections

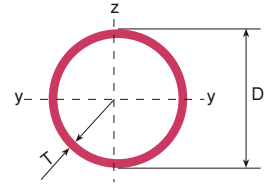
熱成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
139.7	3.2	10.8	13.7	320	4.83	45.8	640	91.6
	4.0	13.4	17.1	393	4.80	56.2	786	112
	5.0	16.6	21.2	481	4.77	68.8	961	138
	6.3	20.7	26.4	589	4.72	84.3	1177	169
	8.0	26.0	33.1	720	4.66	103	1441	206
	10.0	32.0	40.7	862	4.60	123	1724	247
	12.5	39.2	50.0	1020	4.52	146	2040	292
	14.2	43.9	56.0	1116	4.47	160	2233	320
168.3	3.2	13.0	16.6	566	5.84	67.2	1131	134
	4.0	16.2	20.6	697	5.81	82.8	1394	166
	5.0	20.1	25.7	856	5.78	102	1712	203
	6.3	25.2	32.1	1053	5.73	125	2107	250
	8.0	31.6	40.3	1297	5.67	154	2595	308
	10.0	39.0	49.7	1564	5.61	186	3128	372
	12.5	48.0	61.2	1868	5.53	222	3737	444
	14.2	54.0	68.7	2058	5.47	245	4116	489
193.7	3.2	15.0	19.2	869	6.74	89.7	1738	179
	4.0	18.7	23.8	1073	6.71	111	2146	222
	5.0	23.3	29.6	1320	6.67	136	2640	273
	6.3	29.1	37.1	1630	6.63	168	3260	337
	8.0	36.6	46.7	2016	6.57	208	4031	416
	10.0	45.3	57.7	2442	6.50	252	4883	504
	12.5	55.9	71.2	2934	6.42	303	5869	606
	14.2	62.9	80.1	3245	6.37	335	6491	670
219.1	16.0	70.1	89.3	3554	6.31	367	7109	734
	3.2	17.0	21.7	1265	7.63	115	2530	231
	4.0	21.2	27.0	1564	7.61	143	3128	286
	5.0	26.4	33.6	1928	7.57	176	3856	352
	6.3	33.1	42.1	2386	7.53	218	4772	436
	8.0	41.6	53.1	2960	7.47	270	5919	540
	10.0	51.6	65.7	3598	7.40	328	7197	657
	12.5	63.7	81.1	4345	7.32	397	8689	793
244.5	14.2	71.8	91.4	4820	7.26	440	9640	880
	16.0	80.1	102.1	5297	7.20	483	10590	967
	20.0	98.2	125.1	6261	7.07	572	12520	1143
	5.0	29.5	37.6	2699	8.47	221	5397	441
	6.3	37.0	47.1	3346	8.42	274	6692	547
	8.0	46.7	59.4	4160	8.37	340	8321	681
	10.0	57.8	73.7	5073	8.30	415	10150	830
	12.5	71.5	91.1	6147	8.21	503	12290	1006
244.5	14.2	80.6	102.7	6837	8.16	559	13670	1119
	16.0	90.2	114.9	7533	8.10	616	15070	1232
	20.0	110.7	141.1	8957	7.97	733	17910	1465

Hot Finished Structural Circular Hollow Sections

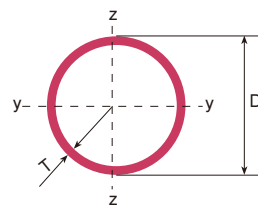
熱成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
273.0	5.0	33.0	42.1	3781	9.48	277	7562	554
	6.3	41.4	52.8	4696	9.43	344	9392	688
	8.0	52.3	66.6	5852	9.37	429	11703	857
	10.0	64.9	82.6	7154	9.31	524	14308	1048
	12.5	80.3	102.3	8697	9.22	637	17395	1274
	14.2	90.6	115.5	9695	9.16	710	19390	1421
	16.0	101.4	129.2	10707	9.10	784	21414	1569
	20.0	124.8	159.0	12798	8.97	938	25597	1875
323.9	5.0	39.3	50.1	6369	11.28	393	12739	787
	6.3	49.3	62.9	7929	11.23	490	15858	979
	8.0	62.3	79.4	9910	11.17	612	19820	1224
	10.0	77.4	98.6	12158	11.10	751	24317	1501
	12.5	96.0	122.3	14847	11.02	917	29693	1833
	14.2	108.5	138.2	16599	10.96	1025	33198	2050
	16.0	121.5	154.8	18390	10.90	1136	36780	2271
	20.0	149.9	190.9	22139	10.77	1367	44278	2734
	25.0	184.3	234.8	26400	10.60	1630	52800	3260
	30.0	217.4	277.0	30219	10.44	1866	60438	3732
	35.0	249.4	317.7	33628	10.29	2076	67256	4153
355.6	6.3	54.3	69.1	10547	12.35	593	21094	1186
	8.0	68.6	87.4	13201	12.29	742	26403	1485
	10.0	85.2	108.6	16223	12.22	912	32447	1825
	12.5	105.8	134.7	19852	12.14	1117	39704	2233
	14.2	119.6	152.3	22227	12.08	1250	44455	2500
	16.0	134.0	170.7	24663	12.02	1387	49326	2774
	20.0	165.5	210.9	29792	11.89	1676	59583	3351
	25.0	203.8	259.7	35677	11.72	2007	71353	4013
	30.0	240.9	306.9	41011	11.56	2307	82023	4631
	35.0	276.7	352.5	45831	11.40	2578	91663	5155
406.4	6.3	62.2	79.2	15849	14.15	780	31699	1560
	8.0	78.6	100.1	19874	14.09	978	39748	1956
	10.0	97.8	124.5	24476	14.02	1205	48952	2409
	12.5	121.4	154.7	30031	13.93	1478	60061	2956
	14.2	137.3	175.0	33685	13.88	1658	67371	3315
	16.0	154.0	196.2	37449	13.81	1843	74898	3686
	20.0	190.6	242.8	45432	13.68	2236	90864	4472
	25.0	235.1	299.6	54702	13.51	2692	109404	5384
	30.0	278.5	354.8	63224	13.35	3111	126400	6223
	35.0	320.6	408.4	71038	13.19	3496	142077	6992
457.0	6.3	70.0	89.2	22654	15.94	991	45308	1983
	8.0	88.6	112.9	28446	15.88	1245	56893	2490
	10.0	110.2	140.4	35091	15.81	1536	70183	3071
	12.5	137.0	174.6	43145	15.72	1888	86290	3776
	14.2	155.1	197.6	48464	15.66	2121	96928	4242
	16.0	174.0	221.7	53960	15.60	2361	107919	4723
	20.0	215.5	274.6	65681	15.47	2874	131363	5749
	25.0	266.3	339.3	79415	15.30	3475	158830	6951
	30.0	315.9	402.4	92173	15.13	4034	184346	8068
	40.0	411.4	524.0	114900	14.81	5031	229900	10060

Hot Finished Structural Circular Hollow Sections

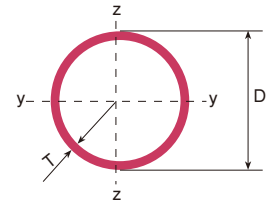
熱成型結構圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
508.0	6.3	77.9	99.3	31250	17.74	1230	62490	2460
	8.0	98.6	125.7	39280	17.68	1546	78560	3093
	10.0	122.8	156.5	48520	17.61	1910	97040	3820
	12.5	152.7	194.6	59760	17.52	2353	119500	4705
	14.2	172.9	220.3	67200	17.47	2646	134400	5291
	16.0	194.1	247.3	74910	17.40	2949	149800	5898
	20.0	240.7	306.6	91430	17.27	3600	182900	7199
	25.0	297.8	379.4	110900	17.10	4367	221800	8734
	30.0	353.6	450.5	129200	16.93	5086	258300	10170
	40.0	461.7	588.1	162200	16.61	6385	324400	12770
	50.0	564.7	719.4	190900	16.29	7515	381800	15030
610.0	6.3	93.8	119.5	54440	21.35	1785	108900	3570
	8.0	118.8	151.3	68550	21.29	2248	137100	4495
	10.0	148.0	188.5	84850	21.22	2782	169700	5564
	12.5	184.2	234.6	104800	21.13	3435	209500	6869
	14.2	208.6	265.8	118000	21.07	3869	236000	7738
	16.0	234.4	298.6	131800	21.01	4321	263600	8641
	20.0	291.0	370.7	161500	20.87	5295	323000	10590
	25.0	360.7	459.5	196900	20.70	6456	393800	12910
	30.0	429.1	546.6	230500	20.53	7557	461000	15110
	40.0	562.3	716.3	292300	20.20	9585	584700	19170
	50.0	690.5	879.7	347600	19.88	11400	695100	22790
711.0	6.3	109.5	139.5	86590	24.92	2436	173200	4871
	8.0	138.7	176.7	109200	24.86	3071	218300	6141
	10.0	172.9	220.2	135300	24.79	3806	270600	7612
	12.5	215.3	274.3	167300	24.70	4707	334700	9415
	14.2	244.0	310.9	188700	24.64	5309	377500	10620
	16.0	274.2	349.4	211000	24.58	5936	422100	11870
	20.0	340.8	434.2	259400	24.44	7295	518700	14590
	25.0	422.9	538.8	317400	24.27	8927	634700	17850
	30.0	503.8	641.8	372800	24.10	10490	745600	20970
	40.0	661.9	843.2	476200	23.77	13400	952500	26790
	50.0	815.1	1038.3	570300	23.44	16040	1141000	32090
762.0	6.3	117	150	106800	26.7	2803	213600	5605
	8.0	149	190	134700	26.7	3535	269400	7070
	10.0	185	236	167000	26.6	4384	334100	8768
	12.5	231	294	206700	26.5	5426	413500	10850
	14.2	262	334	233000	26.4	6120	467000	12300
	16.0	294	375	261000	26.4	6850	522000	13700
	20.0	366	466	321100	26.2	8427	642200	16860
	25.0	454	579	393500	26.1	10330	786900	20650
	30.0	542	690	462900	25.9	12150	925700	24300
	40.0	712	907	593000	25.6	15570	1186000	31130
	50.0	878	1118	712200	25.2	18690	1424000	37390

Hot Finished Structural Circular Hollow Sections

熱成型結構圓管

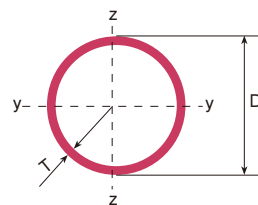


Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
813.0	8.0	159	202	163900	28.5	4032	327800	8064
	10.0	198	252	203400	28.4	5003	406800	10010
	12.5	247	314	251900	28.3	6196	503700	12390
	14.2	280	356	284000	28.2	6990	569000	14000
	16.0	314	401	318200	28.2	7828	636400	15660
	20.0	391	498	391900	28.0	9641	783800	19280
	25.0	486	619	480900	27.9	11830	961700	23660
	30.0	579	738	566400	27.7	13930	1132800	27870
914.0	8.0	179	228	233700	32.0	5113	467300	10230
	10.0	223	284	290500	32.0	6349	580300	12700
	12.5	278	354	359700	31.9	7871	719400	15740
	14.2	315	401	406000	31.8	8890	813000	17800
	16.0	354	451	455100	31.8	9959	910300	19920
	20.0	441	562	561500	31.6	12290	1123000	24570
	25.0	548	698	690320	31.4	15100	1381000	30210
	30.0	654	833	814800	31.3	17830	1630000	35660
1016.0	8.0	234.4	253	321800	35.6	6334	643600	12670
	10.0	291.0	316	399900	35.6	7871	799700	15740
	12.5	360.7	394	496100	35.5	9766	992250	19530
	14.2	429.1	447	561000	35.4	11000	1120000	22100
	16.0	562.3	503	628480	35.4	12370	1257000	24740
	20.0	690.5	626	776300	35.2	15280	1553000	30560
	25.0	109.5	778	956100	35.0	18820	1912000	37640
	30.0	138.7	929	1130000	34.9	22250	2261000	44500



Hot Finished Structural Seamless Circular Hollow Sections

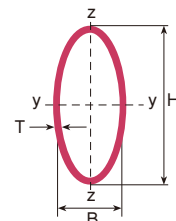
熱成型結構無縫圓管



Outside diameter 外徑	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
BxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I (cm ⁴)	i (cm)	W _{el} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
193.7	16.0	70.1	89.3	3550	6.31	367	7110	734
219.1	20.0	98.2	125	6260	7.07	572	12520	1140
244.5	20.0	111	141	8960	7.97	733	17910	1470
	25.0	135	172	10520	7.81	860	21030	1720
273	20.0	125	159	12800	8.97	938	25600	1880
	25.0	153	195	15130	8.81	1110	30250	2220
323.9	20.0	150	191	22140	10.8	1370	44280	2730
	25.0	184	235	26400	10.6	1630	52800	3260
	30.0	217	277	30220	10.4	1870	60440	3730
355.6	20.0	166	211	29790	11.9	1680	59580	3350
	25.0	204	260	35680	11.7	2010	71350	4010
406.4	20.0	191	243	45430	13.7	2240	90860	4470
	25.0	235	300	54700	13.5	2690	109400	5380
	30.0	278	355	63220	13.3	3110	126400	6220
457	20.0	216	275	65680	15.5	2870	131400	5750
	25.0	266	339	79420	15.3	3480	158800	6950
	30.0	316	402	92170	15.1	4030	184300	8070
508	20.0	241	307	91430	17.3	3600	182900	7200
	25.0	298	379	110900	17.1	4370	221800	8730
	30.0	354	451	129200	16.9	5090	258300	10170
610	25.0	361	459	196900	20.7	6460	393800	12910
	30.0	429	547	230500	20.5	7560	461000	15110

Hot Finished Structural Elliptical Hollow Sections

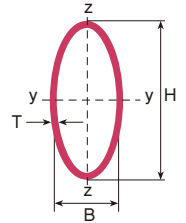
熱成型結構橢圓管



Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _y (cm ⁴)	I _z (cm ⁴)	i _y (cm)	i _z (cm)	W _{ely} (cm ³)	W _{elz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
120x60	3.2	6.85	8.73	123	41.4	3.76	2.18	20.5	13.8	124	30.8
	4.0	8.48	10.8	150	49.9	3.73	2.15	25.1	16.6	150	36.9
	5.0	10.5	13.4	182	59.7	3.69	2.12	30.4	19.9	180	43.9
	6.3	13.0	16.6	221	71.1	3.65	2.07	36.8	23.7	216	51.8
	8.0	16.2	20.6	266	83.7	3.59	2.02	44.3	27.9	256	60.4
150x75	4.0	10.7	13.6	301	101	4.70	2.72	40.1	26.9	303	60.1
	5.0	13.3	16.9	367	122	4.66	2.69	48.9	32.5	367	72.2
	6.3	16.5	21.0	448	147	4.62	2.64	59.7	39.1	443	86.3
	8.0	20.6	26.3	546	176	4.56	2.59	72.8	46.8	533	102

Hot Finished Structural Elliptical Hollow Sections

熱成型結構橢圓管



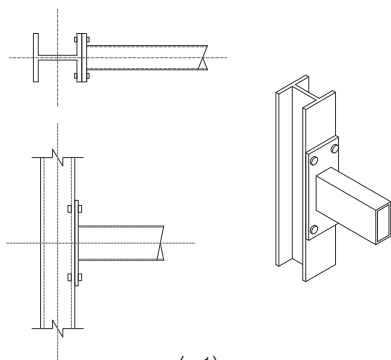
Outside dimension 外部尺寸	Thickness 厚度	Linear mass 單位重量	Cross-sectional area 橫截面積	Second moment of area 截面慣性矩	Second moment of area 截面慣性矩	Radius of gyration 回轉半徑	Radius of gyration 回轉半徑	Elastic section modulus 彈性截面模量	Elastic section modulus 彈性截面模量	Torsional inertia constant 扭轉慣性常數	Torsional modulus constant 扭轉模量常數
HxB (mm)	T (mm)	M (kg/m)	A (cm ²)	I _y (cm ⁴)	I _z (cm ⁴)	i _y (cm)	i _z (cm)	W _{ely} (cm ³)	W _{elz} (cm ³)	I _t (cm ⁴)	C _t (cm ³)
180x90	5.0	16.0	20.4	647	217	5.63	3.26	71.9	48.2	651	107
	6.3	20.0	25.5	794	263	5.58	3.21	88.2	58.5	792	130
	8.0	25.1	31.9	974	318	5.52	3.16	108	70.6	961	155
	10.0	30.8	39.3	1169	375	5.46	3.09	130	83.3	1139	182
200x100	5.0	17.9	22.8	897	302	6.27	3.64	89.7	60.4	905	135
	6.3	22.3	28.4	1103	368	6.23	3.60	110	73.5	1105	163
	8.0	28.0	35.7	1358	446	6.17	3.54	136	89.3	1347	197
	10.0	34.5	44.0	1637	529	6.10	3.47	164	106	1605	232
	12.5	42.4	54.0	1954	619	6.02	3.39	195	124	1889	269
220x110	6.3	24.7	31.4	1484	497	6.87	3.98	135	90.3	1491	201
	8.0	31.0	39.5	1832	606	6.81	3.92	167	110	1824	244
	10.0	38.2	48.7	2215	722	6.74	3.85	201	131	2183	288
	12.5	47.0	59.9	2656	850	6.66	3.77	241	154	2584	337
250x125	6.3	28.2	35.9	2205	742	7.84	4.55	176	119	2224	265
	8.0	35.4	45.1	2732	909	7.78	4.49	219	145	2734	323
	10.0	43.8	55.8	3316	1090	7.71	4.42	265	174	3288	385
	12.5	53.9	68.7	3996	1292	7.63	4.34	320	207	3918	453
300x150	8.0	42.8	54.5	4813	1616	9.39	5.44	321	215	4846	481
	10.0	53.0	67.5	5872	1950	9.32	5.37	391	260	5867	577
	12.5	65.5	83.4	7120	2334	9.24	5.29	475	311	7047	686
	14.2	73.8	94.0	7921	2573	9.18	5.23	528	343	7790	753
	16.0	82.5	105	8731	2809	9.12	5.17	582	374	8529	818
320x160	8.0	45.8	58.3	5877	1978	10	5.82	367	247	5928	553
	10.0	56.7	72.3	7181	2393	9.97	5.75	449	299	7192	665
	12.5	70.1	89.3	8723	2871	9.88	5.67	545	359	8659	793
	14.2	79.1	101	9719	3172	9.82	5.61	607	396	9590	872
400x200	8.0	57.6	73.4	11689	3966	12.6	7.35	584	397	11858	890
	10.0	71.5	91.1	14348	4829	12.5	7.28	717	483	14473	1079
	12.5	88.6	113	17531	5843	12.5	7.19	877	584	17558	1299
	14.2	100	127	19609	6491	12.4	7.14	980	649	19544	1438
	16.0	112	143	21734	7143	12.3	7.07	1087	714	21551	1577
480x240	8.0	69.4	88.5	20445	6973	15.2	8.88	852	581	20819	1308
	10.0	86.3	110	25173	8529	15.1	8.81	1049	711	25512	1594
	12.5	107	136	30875	10375	15	8.72	1286	865	31105	1931
	14.2	121	154	34624	11570	15	8.66	1443	964	34742	2147
500x250	10.0	90	115	28539	9682	15.8	9.19	1142	775	28950	1739
	12.5	112	142	35030	11791	15.7	9.10	1401	943	35333	2108
	14.2	126	161	39305	13158	15.6	9.04	1572	1053	39491	2346
	16.0	142	180	43709	14549	15.6	8.98	1748	1164	43737	2586

Tubular Connection 管連接

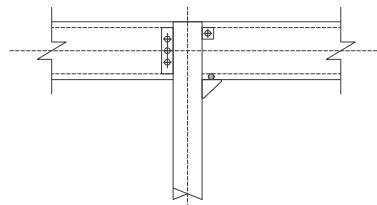
Welded & Bolted Connection 焊接和螺栓連接

Beams and columns are usually connected on site by bolting. In the case of an RHS beam connection to an I-section column, a welded extended end-plate to the RHS beam permits the use of a conventional bolted connection to the column flange or web (see Figure a-1). The bolts may be countersunk into the thick end-plate if the connection is important visually. A number of typical simple connections using cleats welded to an RHS column are shown in Figures 1.b to c. Figure a-2 shows a fin plate welded to the face of the column and the supporting bracket can be detailed to be visually interesting. Figure a-3 shows the use of channels welded at the tips of their flanges.

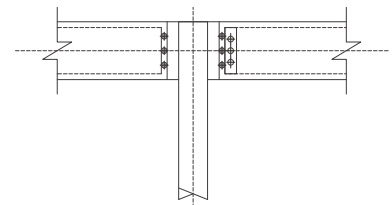
梁柱通常是在現場通過螺栓進行連接。對於RHS梁連接到I型柱的情況，將焊接延伸端板連接到RHS梁上可以使用傳統的螺栓連接至柱子的法蘭或腹板（如圖a-1所示）。如果連接在視覺上很重要，可以將螺栓沉入厚端板中。圖1.b至c展示了使用焊接在RHS柱上的角鋼進行簡單連接的典型示例。圖a-2顯示了焊接到柱表面的板翼，支撐支架可以設計成視覺上有趣的樣式。圖a-3顯示了使用焊接在其法蘭尖端的槽鋼。



(a-1)
Connection of RHS beam to I-section column
扁通和工字鋼柱的連接



(a-2)
Conventional cleats welded to an RHS column
焊接在RHS柱上的常規夾板

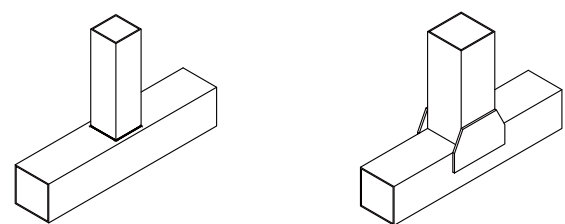


(a-3)
C-sections welded to an RHS column to facilitate the use of a bolted connection
焊接在扁通柱上的C型鋼，以便使用螺栓連接

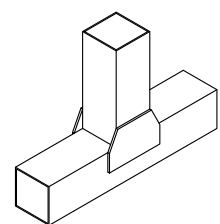
Vierendeel Trusses Vierendeel桁架

Vierendeel Trusses are relatively inefficient at resisting high shear-forces because of the lack of diagonal bracing and, therefore, it is necessary to use thicker or larger chord members than in triangulated trusses. Ideally, the chord and vertical members should be the same external size. If not, stiffening elements are generally inserted to increase the local bending resistance of the connections. Figure b shows various ways in which nominally pinned connections can be strengthened in Vierendeel trusses.

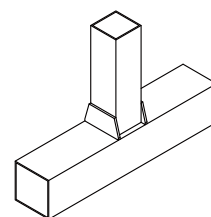
由於缺少對角支撐，桁架在抵抗高剪切力方面效率相對較低。因此需要使用比三角形桁架更厚或更大的弦桿。理想情況下，弦材和豎材應該具有相同的外部尺寸。若非如此，通常會插入加勁元件以提高連接點的局部彎曲抵抗力。圖b顯示了在Vierendeel桁架中如何加強公稱鉸接連接的多種方式。



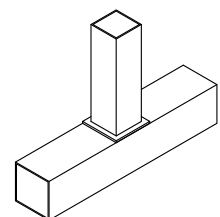
Unreinforced
未加固



Spliced
拼接



Bracing plate stiffeners
腹板加固件



Chord plate stiffener
弦板加固件

(b)

■ Reinforcement of Connections 連接件加固

For maximum resistance of the members, it is usually more efficient to select larger tubular sections with thin walls. However, when designing the connections, it is more advantageous to use chord members that are thicker and smaller in section (provided that they are not smaller than the bracing members). Therefore, a compromise is necessary for overall design and fabrication efficiency.

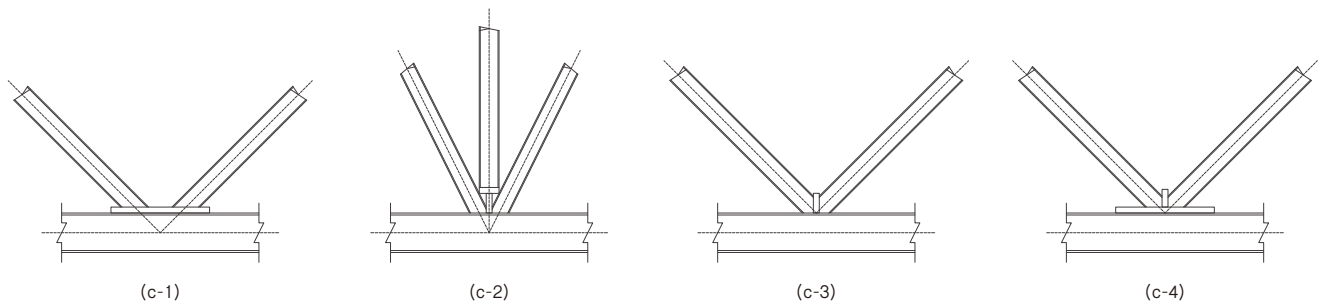
In some cases, connections may have to be strengthened locally to resist the applied forces, if it is not possible to increase the member size or thickness. This can be achieved by welding plates to the chord face (see Figure c-1). It should also be noted that overlaps will also increase the connection resistance, especially for RHS members. When a third member is required at the intersection, a 'T' piece can also be used (see Figure c-2).

Other non-standard stiffened K connections can be used to increase the load capacity of the connection, as illustrated in Figure c-3&4.

為了最大限度地提高構件的承載能力,通常選用壁厚較薄的大尺寸管型材更加有效。但是,在設計連接時,使用較厚且橫截面較小的弦材更有優勢(前提是不小於支撐構件的尺寸)。因此,需要在整體設計和製造效率之間進行權衡折中。

在某些情況下,如果無法增加構件尺寸或厚度,則需要局部加強連接以抵抗作用力。這可以通過將鋼板焊接到弦材表面來實現(見圖c-1)。另外還需要注意,重疊也會增加連接的承載能力,特別是對於RHS構件來說。當需要在交叉點設置第三個構件時,也可以使用"T"形件(見圖c-2)。

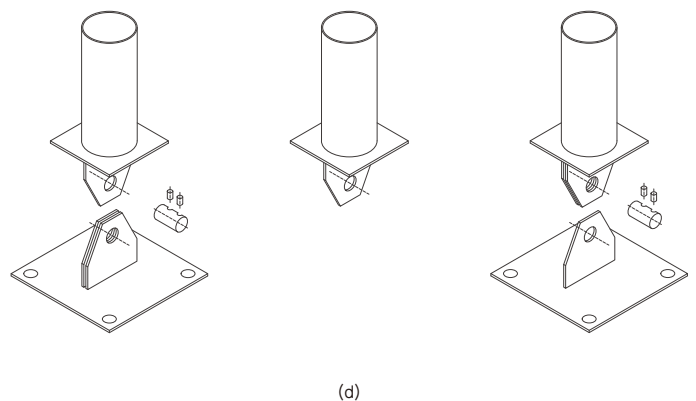
還可以使用其他非標準加勁的K型連接來增加連接的承載能力,如圖c-3和4所示。



■ Column Bases 柱基

Bases to tubular columns take two basic forms: pinned and rigid (or moment-resisting). The details employed reflect the transfer of forces and moments. A genuine pinned connection can be achieved by a single pin from a projecting plate, as shown in Figure d.

管狀柱的基座有兩種基本形式:鉸接和剛性(或抗彎矩)。所採用的細節反映了力和力矩的傳遞。如圖d所示,可通過來自突出板的單個銷軸實現真正的鉸接連接。



Some examples of tubular connections with pinned ends
帶銷端的管狀連接的一些示例

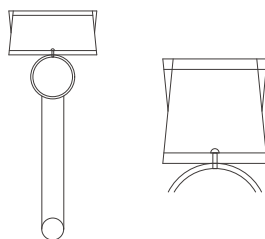
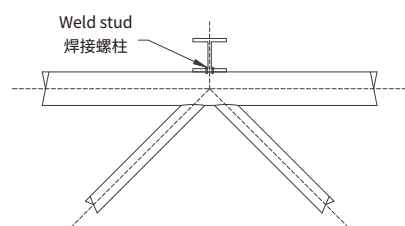
Welded Fins 焊接翼板

Fins or brackets may be welded to the side of CHS or SHS/RHS sections to provide direct attachment of secondary members such as purlins (see Figure e). Connections of this type require careful design because of the possible local distortion of the walls of larger hollow sections. Alternatively, welded threaded studs with extended washers may be used to attach the purlins to the section.

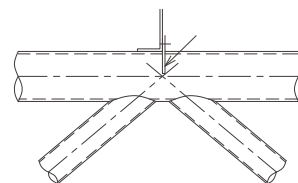
The attachment of tension-ties or rod-bracing members requires similar details. High local forces from ties may also be transferred by 'patch-type' connections, which may be profiled around the circular section so that weld forces are transferred smoothly to the walls of the section.

可焊接翼板或支架到CHS或SHS/RHS截面側面,以提供二級構件(如屋蓋桁)的直接附接(見圖e)。這種連接類型需要仔細設計,因為較大空心截面的壁可能會局部變形。或者,也可以使用焊接螺柱和加長墊圈將屋蓋桁附接到該截面。

張拉桿或桿件支撐的附接也需要類似的細節。來自桿件的高局部力也可通過"貼片式"連接進行傳遞,其可以成形包圍圓形截面,使焊縫力可平滑地傳遞至該截面的壁上。

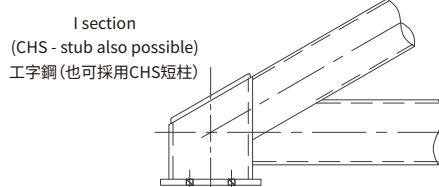
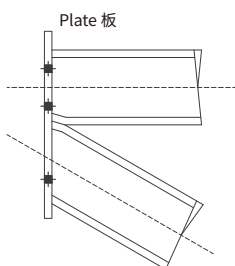


(e)



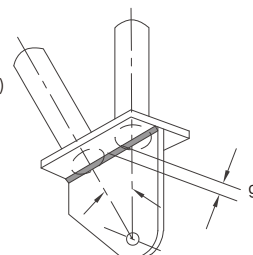
Bolted connections are desirable for site assembly, and large welded sub-assemblies that are prefabricated and bolted together on site at suitable locations. The practical aspects of installation should be considered in the design process. For example, Figure f shows.

螺栓連接對於現場組裝很理想,大型焊接預製件可以在合適的位置現場與之連接。在設計過程中應考慮安裝的實際操作問題。例如,圖f展示了管接頭連接。

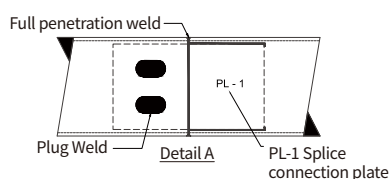
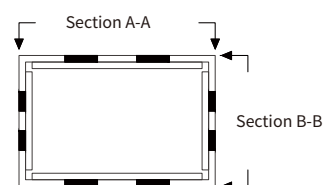


(f)

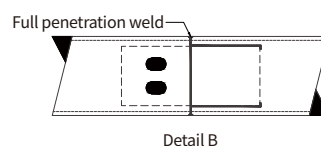
Bolted Connection
to support of tubular trusses
管桁架支座的螺栓連接



Splice Connection with Plug Welding 插焊拼接



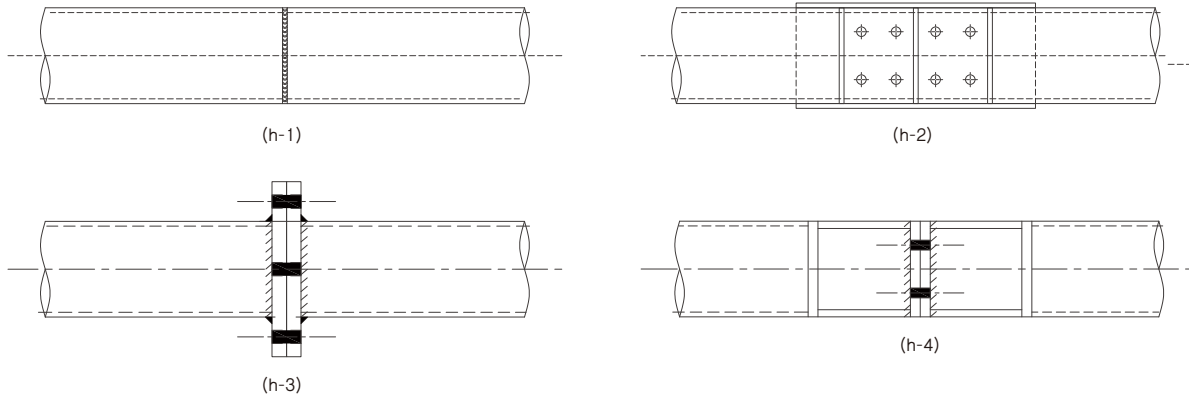
(g)



■ Tubular Splice Connection 管接頭連接

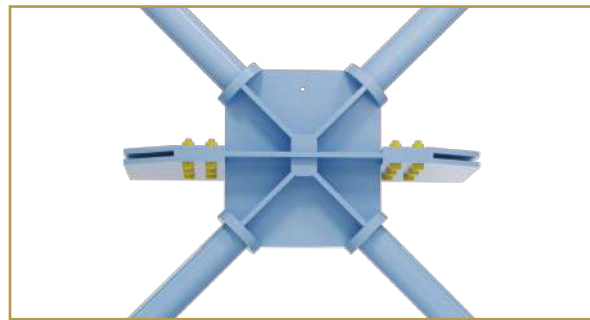
Flange Plates are simple to make but are not aesthetically pleasing. They are suitable for compression but are less efficient for tension because of bending in the end plate, requiring thicker plates and more bolts. Fillet welding around the section could cause distortion of thin flange plates.

法蘭板製作簡單但美觀性較差。它們適用於受壓但不太適合受拉,因為端板會發生彎曲,需要使用更厚的板材和更多的螺栓。圍繞截面的角焊可能會導致薄法蘭板變形。



Moment - resisting connection is achieved by a welded end- plate with four or more bolts. The thickness of the end plate depends on the moment to be transferred.

通過焊接端板和四個或更多螺栓實現抗彎矩連接。端板的厚度取決於需要傳遞的彎矩。



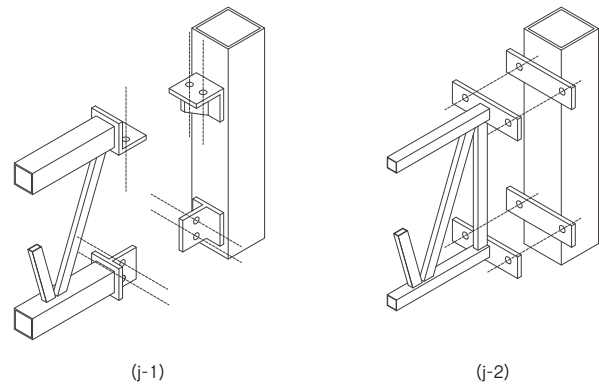
(i) Two -dimensional trusses 二維桁架

■ Tubular Trusses 管桁架

Tubular sections are commonly used in long-span trusses for reasons of aesthetics and structural efficiency. Generally, CHS members are used for both the chords and bracing members, and a typical welded connection is illustrated in Figure i. However, the top and bottom chords may use RHS rather than CHS members in order to facilitate.

由於美觀和結構效率,管型材通常用於長跨度桁架。一般情況下,CHS構件用於弦材和支撐構件,如圖i所示的典型焊接連接。然而,上下弦材可以使用RHS而非CHS構件,以方便操作。

For the connection of tubular trusses to RHS columns, typical bolted details are shown in Figure j. High shear-forces may require the use of more bolts than shown. The sharing of load between the upper and lower chords in the connection depends on the presence of a vertical bracing member at the end of the truss. In the detail of Figure j-1, the upper connection will resist all of the applied shear-force. In Figure j-2, the upper and lower parts of the connections may be assumed to resist equal shear-force.



圖j展示了將管桁架連接到RHS柱的典型螺栓細節。高剪力可能需要比圖中更多的螺栓。連接處上下弦材之間的力分擔取決於桁架端部是否有豎向支撐構件。在圖j-1的細節中,上部連接將承受所有的剪力。在圖j-2中,可假定連接的上下部分承受等量的剪力。

■ Tubular Beam to a Tubular Column 管梁連接到管柱

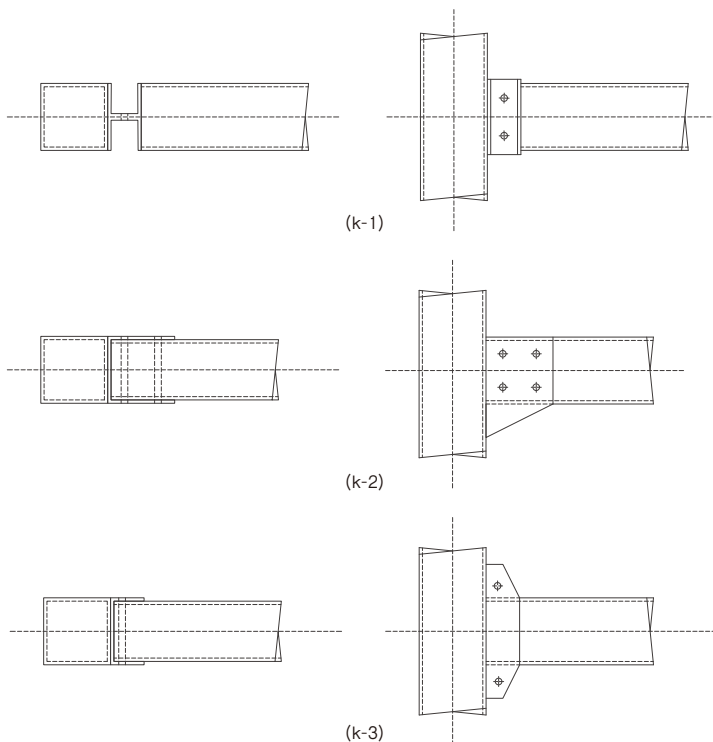


Figure k shows other typical connections of an RHS beam to an RHS column. For lightly loaded connections, the T-section shown in Figure k-1 may be replaced with a fin plate. Where through bolting is used (as in Figure k-2 and Figure k-3, spacer tubes

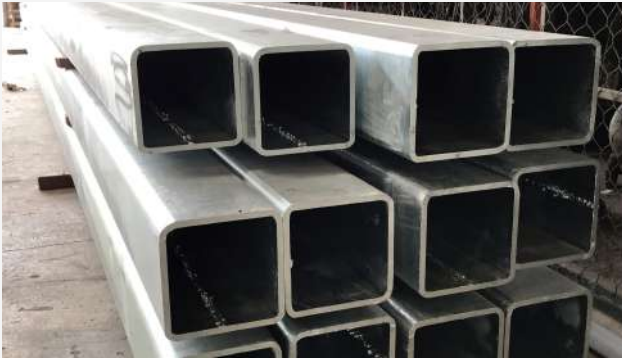
圖k展示了RHS梁連接至RHS柱的其他典型連接方式。對於輕載連接,圖k-1所示的T形截面可以用翼板替代。當使用貫通螺栓(如圖k-2和圖k-3所示)時,需要使用隔套管。

Typical connection of an RHS beam to an RHS column

RHS梁於RSH柱的典型連接

Deep Processing of Products 產品深加工

Galvanization 鍍鋅



Bending 拉彎



Product Supply Conditions and Options

產品供應條件與選擇

■ Certificates 證書

Mill test certificates (3.1 EN 10204) can be supplied with all deliveries. In order to grant traceability, all tubes report manufacturer's logo, steelgrade, reference norm and heat number by paint marking or by labels.

工廠測試證書 (3.1 EN 10204) 可隨所有交付物一起提供。為了提高可追溯性，所有鋼管都通過油漆標誌或標籤記錄製造商的logo、鋼號、參考標準和爐號。

■ Supply Conditions 供應條件

The normal supply lengths are 6.0 to 12.0 m, although upon request they can be supplied at other lengths of between 4.0 and 16.0 m. In addition, other lengths can be supplied upon request.

正常供應長度為6m~12m，但可根據要求提供4m~16m的其他長度。此外，可以根據要求提供其他長度。

The options indicated below are on an inquiry basis.

1. Inside weld bead removed
2. Positioning of weld
3. Tolerances on size of edges, inside and outside dimensions
4. Finishes and surface treatments:
 - Finish of ends of long tube
 - Beveling (only on round tube).
 - Shot blasting and painting
 - By means of this process, calamine and any other contaminants in the material are eliminated. This is the most advanced technique for cleaning cold and hot-rolled steels. Our control process is based on the EN 10238 standard grade SA 2 1/2 with or without priming.
 - Primed or painted tubes are perfectly weldable and do not generate fumes or toxins.
 - Hot dip galvanising
 - Once they have been shaped, the tubes are submerged in the molten zinc tank to provide them with anticorrosion protection.

以下選項以詢價為基礎：

- 1、去除內部焊道
- 2、焊縫定位
- 3、邊緣尺寸、內外尺寸公差
- 4、飾面和表面處理：
 - 長管兩端修整——斜切（僅適用於圓管）
 - 噴丸和噴漆
 - 通過該工藝，爐甘石和材料中的其他污染物都被清除，這是清洗冷軋和熱軋鋼材的最先進技術。我們的控制流程基於EN10238標準，等級SA 2 1/2，帶或不帶底漆。
 - 塗有底漆或油漆的管子完全可以焊接，不會產生煙霧或毒素。
 - 熱浸鋅——管子一成型就浸入熔融鋅槽中，以提供防腐保護。

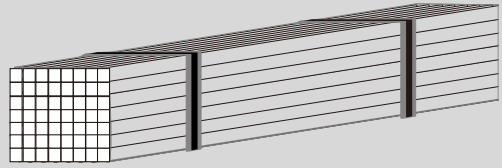


■ Packaging and Strapping 包裝和捆扎

■ Rectangular package (standard) 矩形封裝 (標準)

Rectangular or square tubes, packages are made with metal slings in the form of a rectangle.

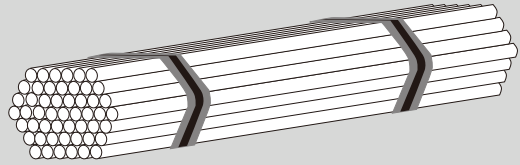
矩形或方形的管用金屬吊索捆成矩形。



■ Hexagonal package (standard) 六角形封裝 (標準)

Round tubes, and these are tied together with metal slings in a hexagonal form to optimise their protection and handling.

圓管用金屬吊索綁成一個六角形的形式，以優化其保護和處理。



Job Reference 工程業績



Redevelopment of KWAI CHUNG HOSPITAL
葵湧醫院重建



Kai Tak Sports Park
啟德體育園



Hong Kong International Airport Three-Runway Terminal Building
香港國際機場三跑道客運大樓



Shek Kwu Chau Incinerator Works
石鼓洲焚化爐工程



Yuen Long Water Purification Facility Phase I
元朗淨水設施第一期



Central Kowloon Route - Kai Tak West Tunnel
中九龍幹線-啟德西隧道



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