



金牌螺絲五金製造有限公司

Gold Medal Screw Metal Mfg. Co., Ltd

Access to the World



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Dear Valued Customers,

Greetings.

Thank you for your unwavering support for Gold Medal Screw Metal Manufacturing Company Limited during the past 20 years. We owe our leading position in the industry today to each and every one of you. This year, on the occasion of our 20th anniversary, we have developed this specially designed catalogue. It is our way of thanking you for your patronage through the years. It also showcases our newest products and technologies. We hope that our high quality products can continue to serve as major enablers in your manufacturing and production.

Since our founding day, we have upheld our belief of "quality, service, professionalism and innovation". This has also been our unchanging promise to our customers.

Looking into the future, the prospect is full of challenges and opportunities. Through our sincere and professional services, we hope that we can become your most trusted business partner. Here is to creating an even brighter future, together.

Director, 2011

尊貴的客戶：

您好！首先，謹以萬分榮幸的心情，感謝客戶這二十年來對金牌公司支持，能使本公司在這些年來屹立不倒，在五金行業裡佔上一席位。適逢今年本公司二十週年慶典，特為各尊貴客戶精心策劃全新產品目錄書，借此表達本公司對各界朋友多年來惠顧及支持的謝意並將最新的產品和技術向各客戶介紹，同時也期盼我們的產品能成為各客戶生產上最得力的助手。

本公司創業以來一直追求，並堅持一個不變的信念“品質、服務、專業、創新！”這也是我們對客戶始終如一的不變承諾！在此二十一世紀是充滿希望與挑戰，展望將來，本公司期待通過真誠及專業的服務成為各尊貴客戶最信賴的工作伙伴，與您共同邁向成功的未來。

董事總經理, 2011



Company Introduction

公司介紹

Gold Medal Screws Manufacturing Company Limited was established in Hong Kong in 1990. In 1992, the company set up manufacturing facilities in Southern China with focus on production of metal screws and metal spare parts.

To meet our customers' needs for strong quality control at reduced cost, and to strengthen their competitiveness in the market, we set our own raw materials processing plant in 2000, achieving vertical integration and self-sufficiency. This enhances our products quality and helps maintain pricing stability.

To meet our strict quality standards, In 2003, the company successfully qualified for the renowned BSI ISO 9001 international certification – a testimony of our products meeting international standards

And in line with the ever increasing demand for reduced environmental footprints of operations, the company set up our own electroplating facilities in 2005. This enabled us to ensure even stronger quality management and control that meets the needs of our clients in the North American and European Union markets. We also established the environmental protection laboratory equipped with AA6300 and UV 1240 testing equipments. This ensures that all our products not only meet quality standards but also comply with environmental sustainability requirements.

Currently, our plant facilities occupy 18,000 square meters of land, with over 100 fully automated production lines and testing instruments ---- sufficient to meet the increasing production demands of our customers and clients. We serve primarily the electronics, toys manufacturing, computer manufacturing, home appliances and lighting fixtures industries.

We continue to innovate, learn and develop new technologies to deliver more diverse, superior high quality products for our customers.

Our strong quality, good value for money, our responsiveness and agility, and our passion have earned us the trust of many companies, earning us a strong position in the fiercely competitive market.



金牌螺絲五金製造有限公司於1990年在香港創立，1992年於國內設廠，專門制造各類五金螺絲車床及五金配件等產品。

為配合各客戶在市場上更有力的競爭，本公司於2000年自設拉線廠，提升螺絲品質及保持穩定性價格，實行自產自足。

為追求更嚴格的質量體系，及在全體員工的支持和配合下，於2003年考獲英國註明的BSI ISO9001國際認證，使產品品質上得到國際認可及更具認售性。

隨著市場上環保要求不斷提升，以配合美國、歐盟等主要市場需要，本公司在2005年再度投資自設電鍍車間，可使產品質量及管理控制更能得到保證，以配合美國、歐盟等主要市場。再而為迎合現時環保市場各要求，廠內投資環保實驗室 (附設AA6300及UV1240等專業元素測試儀器)，以確保產品出廠時可達到客戶各樣環保要求。

本公司累積二十年生產螺絲及各大小五金件經驗，發展至今，廠房佔地18,000平方米，擁有超過百台自動化生產機器，測試機，足夠應付各大商家大量貨品要求。而產品主要提供於電子、玩具、電腦、家電以及燈飾等等製造行業。

為求精益求精，本公司追求不斷學習及吸收新技術，以能提供更多原化及優惠產品予各大商家，除此以外，保持高質量，低成本、快捷的交貨以及熱誠的服務贏得了各客戶多年來支持及信賴，致使本公司能在激烈競爭市場環境下能穩站上一席位。

History 公司歷史

1990年

金牌螺絲五金製造有限公司正式成立，並在東莞自設廠房，生產各種五金螺絲為主。

Founded in 1990, with its base in Hong Kong, Gold Medal Screw Metal Manufacturing Co., Ltd. extended its coverage by establishing their solely owned manufacturing plant in Dongguan City providing a vast range of screws and fasteners.

2000年

在國內投產拉線廠，同時加入了生產自動車床產品及各大五金工業上用的配件。

With the introduction of Cabling Plant, Gold Medal started to produce automatic lathes and various metal fittings.

2003年

獲得BSI (ISO9001:2000)的認證，以確保管理和品質上可達到國際上的要求。

Being BSI (ISO9001:2000) certified assure Gold Medal to provide extremely high quality products which match international standards.

2005年

再度投資自設電鍍車間，可使產品質量及管理控制更能得到保證。

Having our own plating factory and guaranteed all our products are in good quality and condition.

2008年

自設物理和環保實驗室，使環保標準上更能符合客戶要求及緊貼市場需要。

Setup our own physical and environmental protection laboratory to satisfied our customer and marketing need.

2010年

追求卓越未來，本公司制定品質政策：“專精務實，開拓進取，與時俱進”，願為客戶竭誠服務，達到世界品質的半成品生產廠。

As we embrace the future, we are prepared to go forward with our renewed product quality strategies:

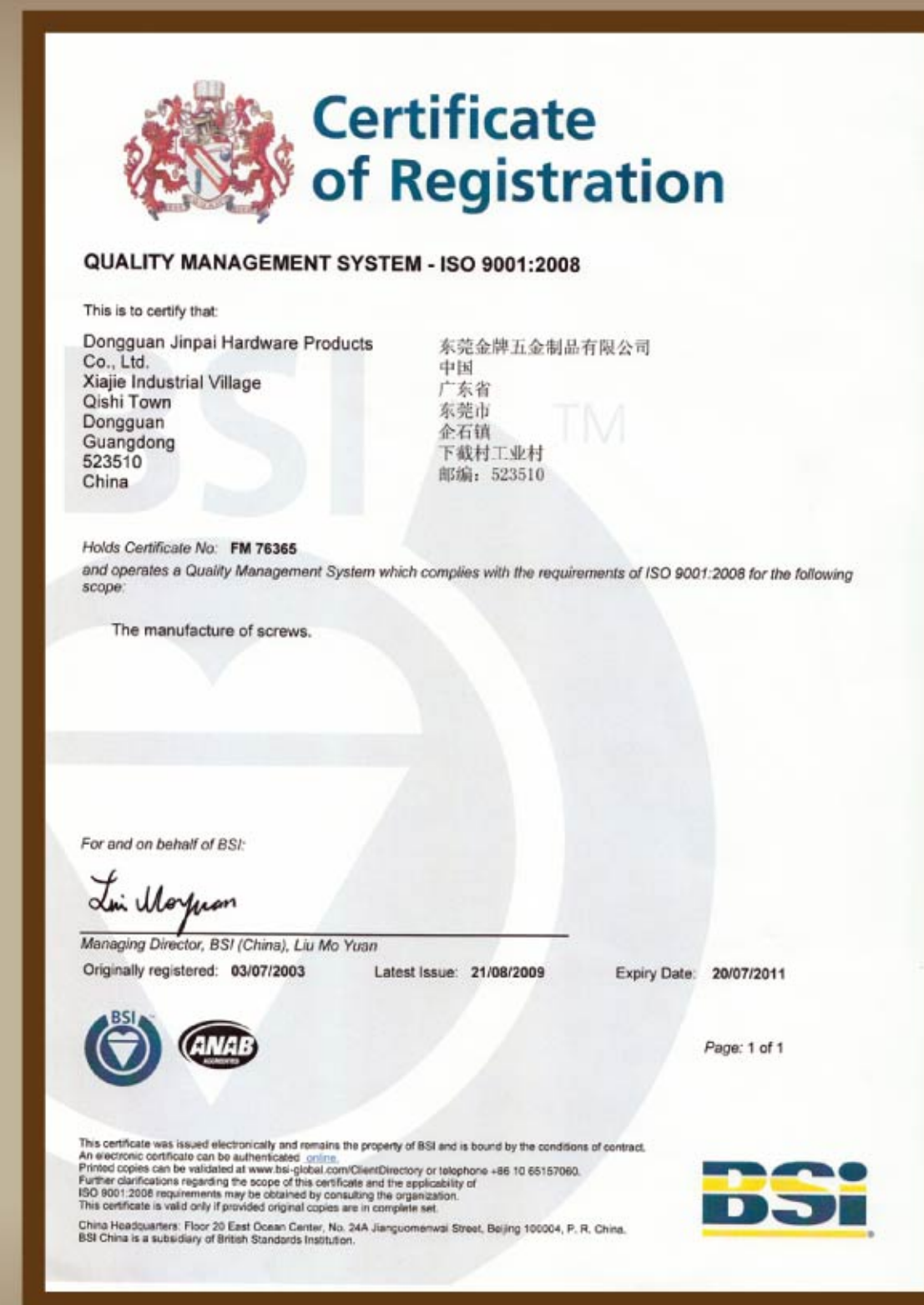
- Achieving Professional Precision while Maintaining Pragmatism.
- Forging Ahead by Breaking New Grounds
- Keeping Abreast of the Changing Times

We stand ready to deliver world-class products to serve our valued customers.

Major Products 主要產品

螺絲，特種防鬆螺絲，鍋釘，雞眼，電池片，介子及自動車床加工件等等。

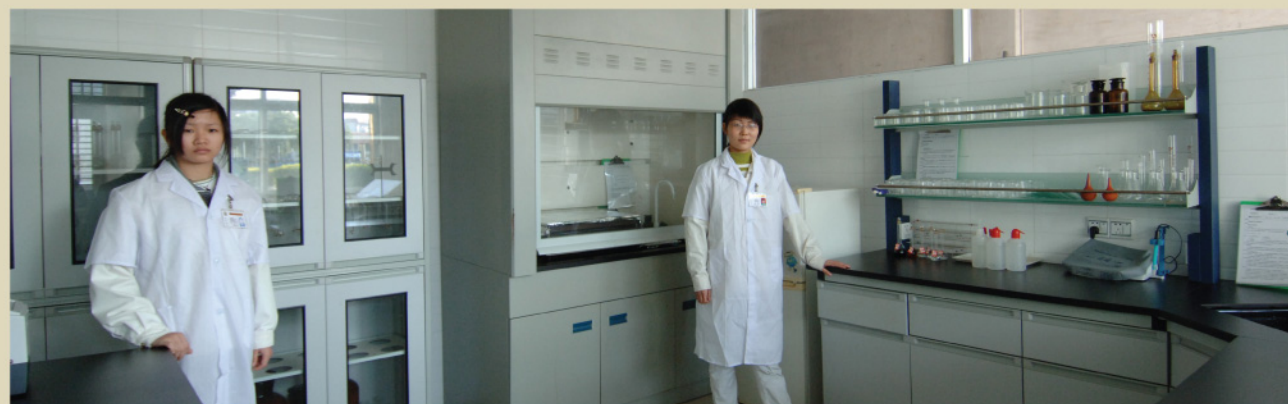
Screws, special parts, locknuts, rivets, eyelets, battery contact plates, nuts and automatic lathes etc.



Facilities 公司設備

With the latest machinery, advanced testing laboratories and the constant improvement of technicality, our company is dedicated and well-prepared to satisfy our customers' need.

我們以最新的機械設備、先進的檢測實驗室，加上在技術上的不斷完善，迎合客戶不同的需求。



螺絲篩選機



鹽霧腐蝕試驗箱



洛氏 / 維氏硬度計



X-RAY XUL

光學投影儀



拉力伺服機



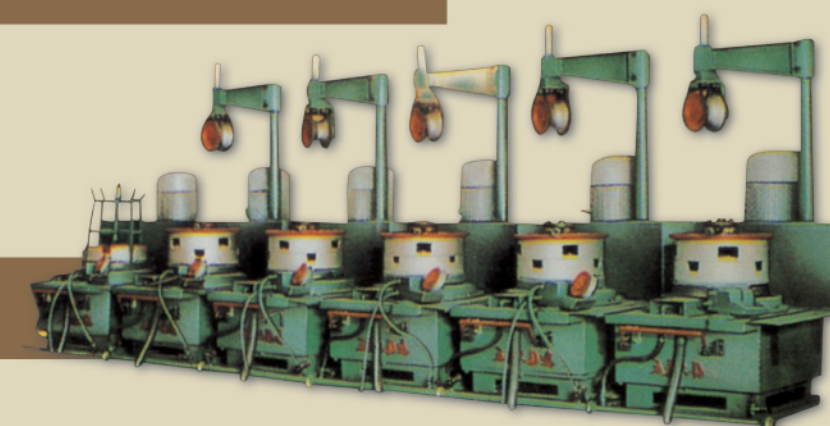
HV-1000 型圖像處理顯微維氏硬度計

AA6300 原子吸收分光光度計



UN-1240 紫外可見光分光光度計

滑輪式連續拉絲機



BP 退火爐

原材料

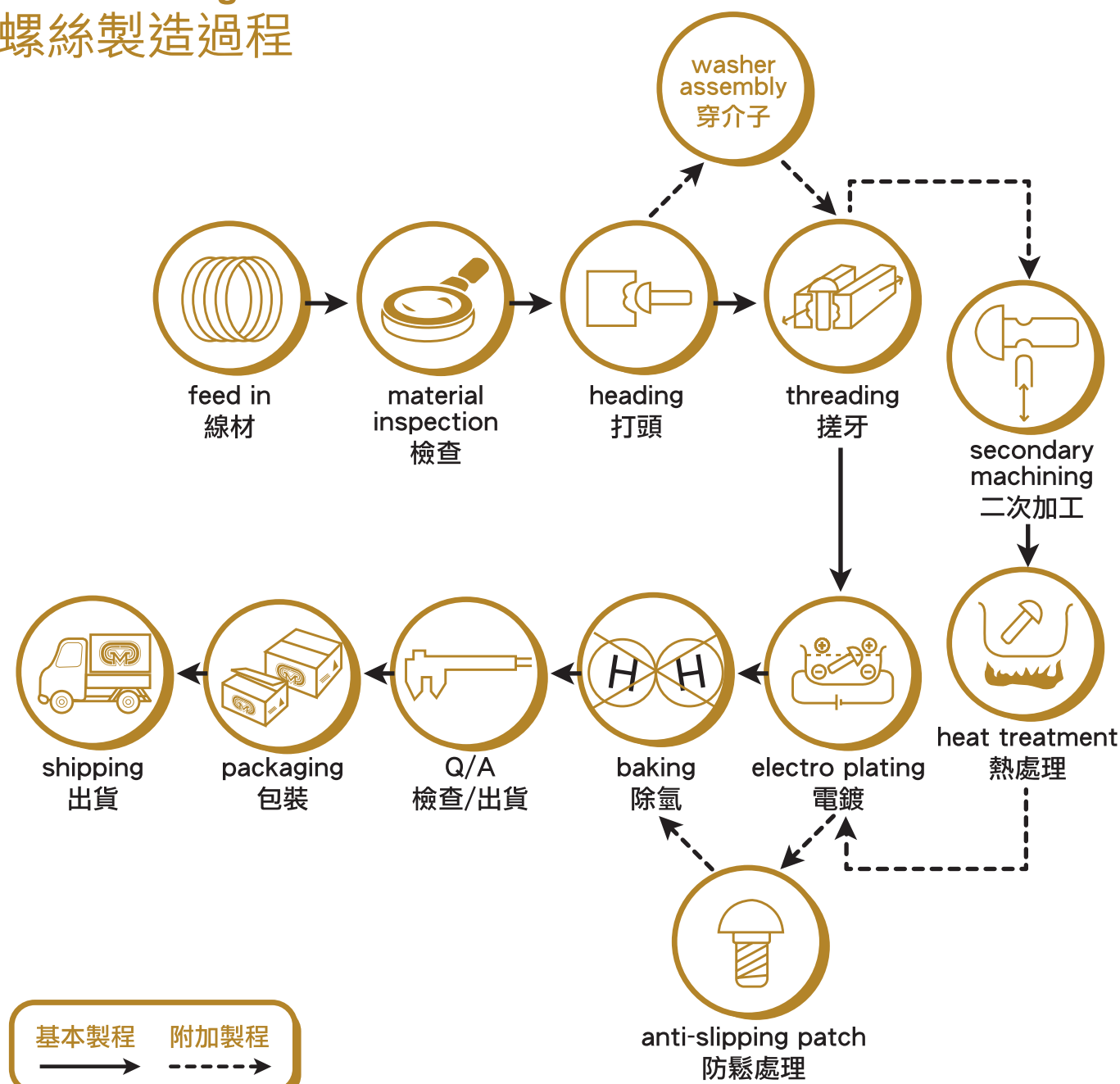


Product Introduction

產品介紹

Manufacturing Process of Screws

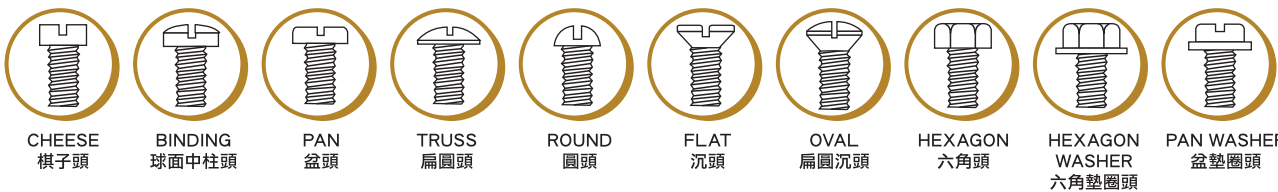
螺絲製造過程



Classifications of Screw 螺絲釘分類

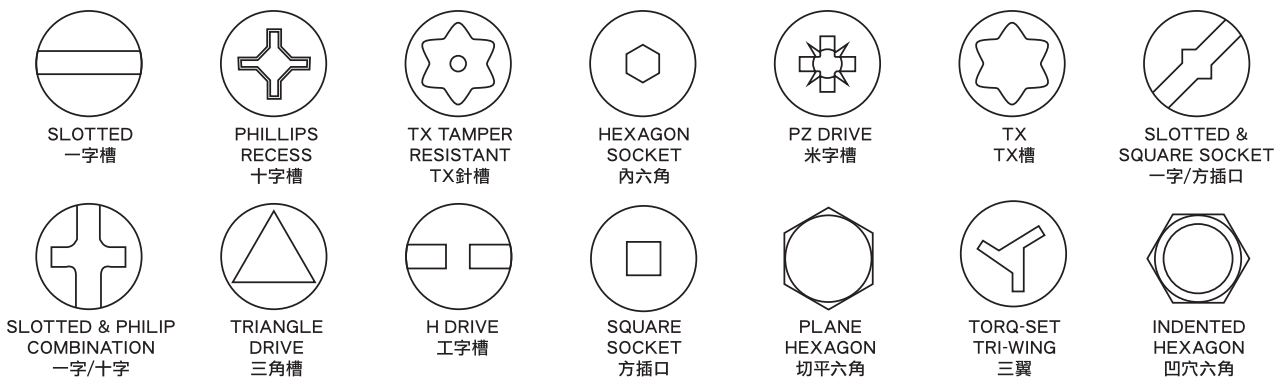
- 按使用方法：機器螺絲釘、自攻螺絲釘。機器螺絲：其外螺紋與對應之內螺紋旋合使用。自攻螺絲：只有外螺紋一種形式，螺絲釘自身具有較高的硬度，在主體制件的成形孔沒有螺紋的情況下裝配時自攻成螺紋。
- 按生產標準：美制 (ANSI)、國際標準 (ISO)、日制 (JIS)、德制 (DIN)、英制 (BSW)。(非標準件可按客戶要求生產)
- 按頭部形狀分：(以下為常見頭型，特殊頭型可按客戶要求生產)

Types of Head 螺絲頭型

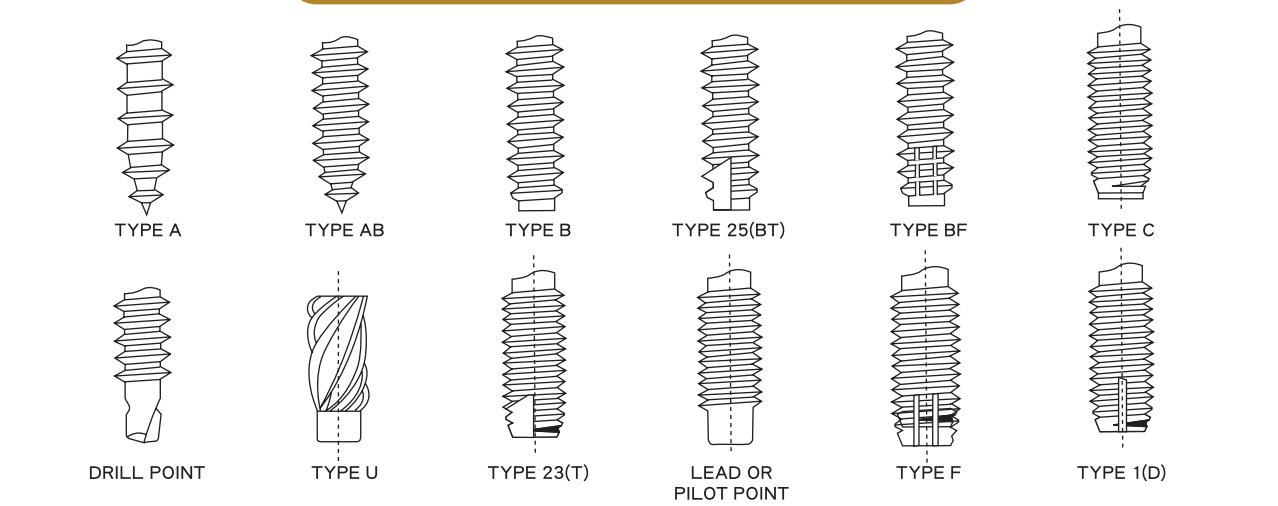


- 按頭部槽形分：(以下為常見槽型，特殊槽型可按客戶要求生產)

Types of Drive Insert 螺絲槽型



Points of Self Tapping Screw 螺絲末端



2. Material 按螺絲釘材料：Carbon Steel (Low & Medium) 低、中碳鋼、Alloy Steel 合金鋼、Brass 銅、Aluminium 鋁、Stainless Steel etc. 不銹鋼等

3. Surface Finishings 常見表面處理

1. ZINC 鋅<Zn>
2. NICKEL 鎳<Ni>
3. BRONZE 青銅

4. BLACK OXIDE 氧化黑<'O'>
5. BLACK ZINC 鋅黑<BL-ZN>

6. TRIVALENT CHROMIUM CHROMATE 三價鉻彩鋅<T-Cr>

Types of Head

螺絲釘頭型



Types of Head 螺絲釘頭型

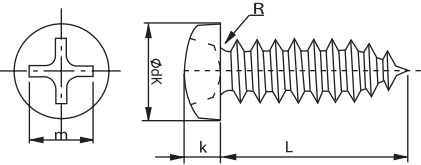
JIS 標準頭型系列尺寸

尺寸及公差

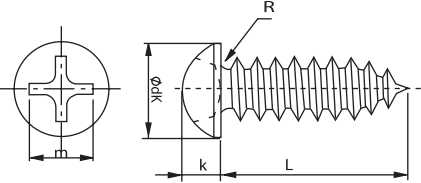
Unit: mm

| Type Of Head Nominal Size | PAN (P) | | | | TRUSS (T) | | | |
|------------------------------|-------------------|------------|---------------|-------|-------------------|-------------|---------------|-------|
| | Head Diameter Ødk | | Head Height k | | Head Diameter Ødk | | Head Height k | |
| 1.7 | 3.2 | +0 -0.4 | 1.1 | ±0.1 | - | +0 -0.40 | - | ±0.1 |
| 2.0 | 3.5 | | 1.3 | | 4.5 | | 1.2 | |
| 2.2 | 4.0 | | 1.5 | | 5.0 | | 1.3 | |
| 2.3 | 4.0 | | 1.5 | | 5.2 | | 1.4 | |
| 2.5 | 4.5 | | 1.7 | | 5.7 | | 1.5 | |
| 2.6 | 4.5 | +0 -0.5 | 1.7 | ±0.15 | 5.9 | +0 -0.5 | 1.6 | ±0.15 |
| 3.0 | 5.5 | | 2.0 | | 6.9 | | 1.9 | |
| 3.5 | 6.0 | | 2.3 | | 8.1 | | 2.2 | |
| 4.0 | 7.0 | | 2.6 | | 9.4 | | 2.5 | |
| 4.5 | 8.0 | | 2.9 | | 10.6 | | 2.8 | |
| 5.0 | 9.0 | +0 -0.6 | 3.3 | ±0.20 | 11.8 | +0 -0.6 | 3.1 | ±0.20 |
| 6.0 | 10.5 | +0 -0.7 | 3.9 | | 14.0 | +0 -0.7 | 3.7 | |
| 8.0 | 14.0 | +0 -0.8 | 5.2 | | 17.8 | +0 -0.8 | 4.8 | |

1. PAN HEAD MACHINE OR TAPPING SCREW
簡稱“P”頭
注：頭部槽型可按客戶要求生產



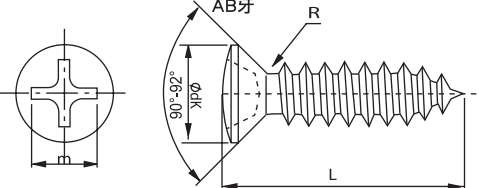
2. TRUSS HEAD MACHINE OR TAPPING SCREW
簡稱“T”頭



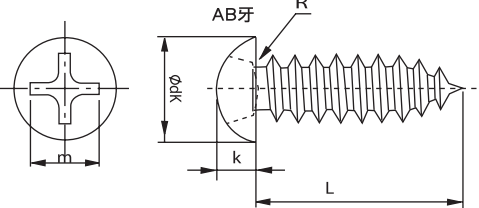
Unit: mm

| Nominal Size | Type Of Head | OVAL HEAD (O) | | ROUND HEAD (R) | | | | |
|-----------------|-----------------|-------------------|------------|-------------------|-------------|---------------|-------|-------|
| | | Head Diameter Ødk | Head Angle | Head Diameter Ødk | | Head Height k | | |
| 1.7 | | 3.4 | 90° ~ 92° | 3.2 | +0 -0.40 | 1.2 | ±0.1 | |
| 2.0 | | 4.0 | | 3.5 | | 1.3 | | |
| 2.2 | | 4.4 | | 4.0 | | 1.5 | | |
| 2.3 | | 4.6 | | 4.0 | | 1.5 | | |
| 2.5 | | 5.0 | | 4.5 | | 1.7 | | |
| 2.6 | | 5.2 | | 4.5 | 1.7 | | | |
| 3.0 | | 6.0 | | 5.5 | +0 -0.5 | 2.0 | ±0.15 | |
| 3.5 | | 7.0 | | 6.0 | | 2.3 | | |
| 4.0 | | 8.0 | | 7.0 | | 2.6 | | |
| 4.5 | | 9.0 | | 8.0 | +0 | 3.0 | | |
| 5.0 | | 10.0 | | 9.0 | -0.6 | 3.4 | | |
| 6.0 | | 12.0 | | +0 -0.7 | 10.5 | +0 -0.7 | 4.0 | ±0.20 |
| 8.0 | | 16.0 | | +0 -0.8 | 14.0 | +0 -0.8 | 5.4 | |

5. OVAL HEAD MACHINE OR TAPPING SCREW
簡稱“O”頭



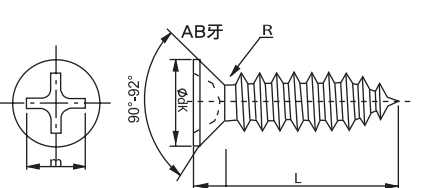
6. ROUND HEAD MACHINE OR TAPPING SCREW
簡稱“R”頭



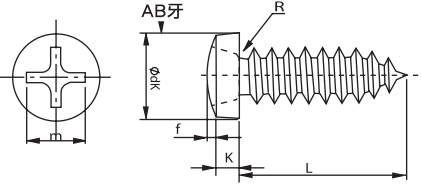
Unit: mm

| Nominal Size | Type Of Head | FLAT HEAD (K.F.) | | BINDING (B) | | | |
|-----------------|-----------------|-------------------|-----------|-------------|-------------------|------|-----------------|
| | | Head Diameter Ødk | | Head Angle | Head Diameter Ødk | | Head Height k+f |
| 1.7 | 3.4 | +0 -0.4 | 90° ~ 92° | - | +0 -0.40 | - | ±0.15 |
| 2.0 | 4.0 | | | 4.3 | | 1.2 | |
| 2.2 | 4.4 | | | 4.7 | | 1.3 | |
| 2.3 | 4.6 | | | 4.9 | | 1.4 | |
| 2.5 | 5.0 | | | 5.3 | | 1.5 | |
| 2.6 | 5.2 | 5.5 | | 1.6 | | | |
| 3.0 | 6.0 | +0 -0.5 | | 6.3 | +0 -0.5 | 1.9 | ±0.20 |
| 3.5 | 7.0 | | | 7.3 | | 2.2 | |
| 4.0 | 8.0 | | | 8.3 | | 2.5 | |
| 4.5 | 9.0 | +0 -0.6 | | 9.3 | +0 -0.6 | 2.8 | |
| 5.0 | 10.0 | +0 -0.7 | | 10.3 | +0 -0.7 | 3.1 | |
| 6.0 | 12.0 | | | 12.4 | | 3.7 | ±0.20 |
| 8.0 | 16.0 | | | +0 -0.8 | | 16.4 | +0 -0.8 |

3. FLAT HEAD MACHINE OR TAPPING SCREW
簡稱“F”頭又稱“K”頭



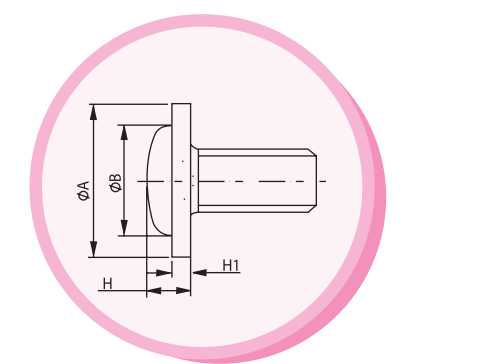
4. BINDING HEAD MACHINE OR TAPPING SCREW
簡稱“B”頭



Unit: mm

| Nominal Size | Head Diameter Ø B | | Head Height H | | Washer Head Diameter Ø A | | Washer Head Thickness H1 | |
|--------------|-------------------|-------|---------------|-------|--------------------------|-------|--------------------------|-------|
| | Size | Tol. | Size | Tol. | Size | Tol. | Size | Tol. |
| 1.6 | 3.2 | -0.40 | 1.1 | ±0.1 | 4.0 | -0.3 | 0.3 | ±0.05 |
| 2.0 | 3.5 | -0.40 | 1.3 | ±0.1 | 5.0 | -0.3 | 0.3 | ±0.05 |
| 2.5 | 4.1 | -0.40 | 1.7 | ±0.1 | 6.0 | -0.3 | 0.5 | ±0.05 |
| 3.0 | 5.5 | -0.50 | 2.0 | ±0.15 | 7.0 | -0.36 | 0.5 | ±0.05 |
| 3.5 | 6.0 | -0.50 | 2.3 | ±0.15 | 8.0 | -0.36 | 0.5 | ±0.05 |
| 4.0 | 7.0 | -0.50 | 2.6 | ±0.15 | 9.0 | -0.36 | 0.8 | ±0.10 |
| 5.0 | 9.0 | -0.60 | 3.3 | ±0.15 | 10.0 | -0.36 | 1.0 | ±0.10 |
| 6.0 | 10.5 | -0.70 | 3.9 | ±0.20 | 12.0 | -0.43 | 1.0 | ±0.10 |
| 8.0 | 14.0 | -0.80 | 5.2 | ±0.20 | 16.0 | -0.43 | 1.0 | ±0.20 |

7. PAN WASHER HEAD MACHINE OR TAPPING SCREW
簡稱“PW”頭



Self Tapping Screw Threads

自攻螺絲釘螺紋

Machine Screw Threads

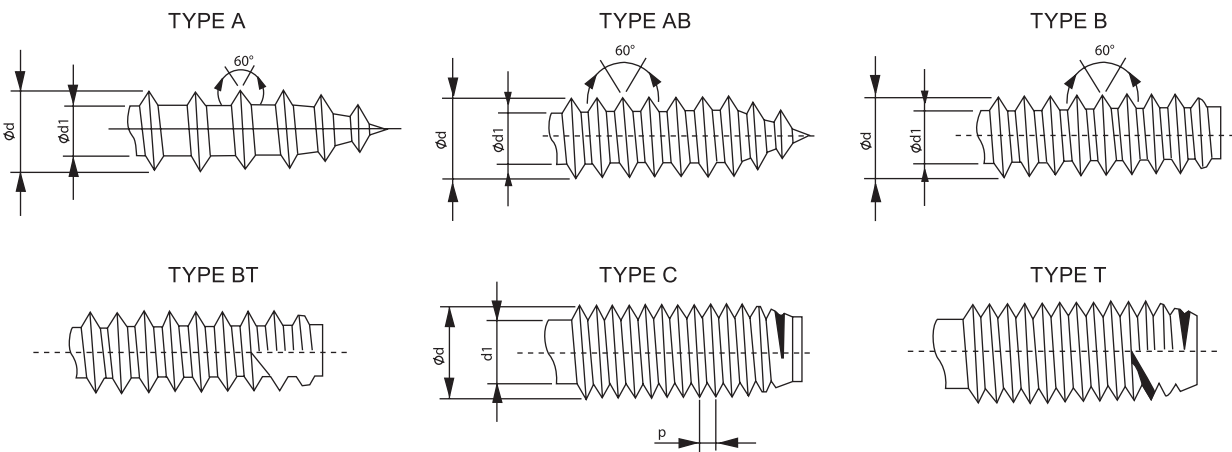
機器螺絲釘螺紋



Self Tapping Screw Threads 自攻螺絲釘螺紋

Size Range: M1.4 to M8 尺寸範圍: M1.4 - M8

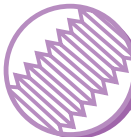
JIS 標準螺紋



Unit: mm

| Nominal Size | T1.2 | T1.4 | T1.6 | T1.7 | T2.0 | T2.3 | T2.5 | T2.6 | T3.0 | T3.5 | T4.0 | T4.5 | T5.0 |
|----------------|---------|---------|---------|---------|------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| (螺紋尾形) | AB B | AB B | AB B | AB B | AB B.BT | AB B.BT | AB B.BT | A B.BT | A B.BT | A B.BT | A B.BT | A B.BT | A B.BT |
| Point of screw | T.P.I | 64 | 56 | 48 | 48 | 40 | 32 | 28 | 28 | 24 | 18 | 20 | 16 |
| O.D(d) | Maximum | 1.2 | 1.4 | 1.6 | 1.7 | 2 | 2.3 | 2.5 | 2.7 | 2.6 | 3.1 | 3 | 3.65 |
| | Minimum | 1.15 | 1.35 | 1.52 | 1.62 | 1.9 | 2.2 | 2.4 | 2.6 | 2.5 | 3 | 2.9 | 3.5 |
| I.D(d1) | Maximum | 1 | 1.1 | 1.3 | 1.4 | 1.5 | 1.7 | 1.9 | 1.9 | 2 | 2.2 | 2.3 | 2.6 |
| | Minimum | 0.95 | 1.05 | 1.2 | 1.3 | 1.4 | 1.6 | 1.8 | 1.8 | 1.9 | 2.1 | 2.2 | 2.5 |
| Length (mm) | > | 2.5 | 2.5 | 2.5 | 2.5 | 3 | 4 | 4 | 4 | 4 | 6 | 8 | 8 |
| | < | 6 | 6 | 8 | 8 | 15 | 18 | 20 | 25 | 40 | 50 | 50 | 50 |

| Nominal Size | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #10 | #12 |
|----------------|---------|------|------|------|------|------|------|------|------|
| | AB | AB | A | AB | A | AB | A | AB | A |
| | B.BT | B.BT | B.BT | B.BT | B.BT | B.BT | B.BT | B.BT | B.BT |
| Point of screw | T.P.I | 32 | 23 | 24 | 20 | 18 | 20 | 16 | 19 |
| O.D(d) | Maximum | 2.24 | 2.57 | 2.9 | 3.3 | 3.58 | 3.53 | 4.01 | 3.91 |
| | Minimum | 2.13 | 2.46 | 2.79 | 3.2 | 3.46 | 3.43 | 3.86 | 3.79 |
| I.D(d1) | Maximum | 1.63 | 1.91 | 2.11 | 2.18 | 2.41 | 2.39 | 2.59 | 2.64 |
| | Minimum | 1.52 | 1.8 | 1.98 | 2.08 | 2.29 | 2.44 | 2.52 | 2.74 |
| Length | > | 1/8 | 3/16 | 3/16 | 1/4 | 1/4 | 5/16 | 5/16 | 5/16 |

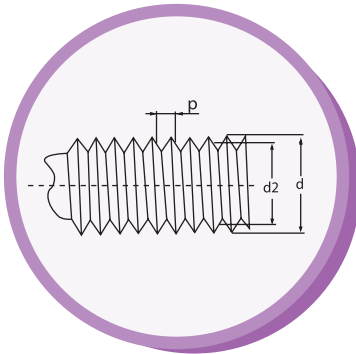


Machine Screw Threads 機器螺絲釘螺紋

ISO Coarse Screw (Thread 60°) 公制粗牙外螺紋的規格直徑及公差 (外螺紋60°)

Unit: mm

| Nominal Size | (P) Pitch | d (Major diameter) | | d2 (Major diameter) | |
|--------------|-----------|--------------------|--------|---------------------|--------|
| | | (Max) | (Min) | (Max) | (Min) |
| M1.7 | 0.35 | 1.680 | 1.610 | 1.453 | 1.393 |
| M2.0 | 0.40 | 1.981 | 1.886 | 1.721 | 1.654 |
| M2.3 | 0.40 | 2.280 | 2.189 | 2.020 | 1.960 |
| M2.6 | 0.45 | 2.580 | 2.480 | 2.288 | 2.218 |
| M3.0 | 0.50 | 2.980 | 2.874 | 2.355 | 2.580 |
| M3.5 | 0.60 | 3.479 | 3.354 | 3.080 | 3.004 |
| M4.0 | 0.70 | 3.978 | 3.838 | 3.523 | 3.433 |
| M4.5 | 0.75 | 4.478 | 4.338 | 3.991 | 3.901 |
| M5.0 | 0.80 | 4.976 | 4.826 | 4.456 | 4.361 |
| M6.0 | 1.00 | 5.974 | 5.794 | 5.324 | 5.212 |
| M8.0 | 1.25 | 7.972 | 7.760 | 7.160 | 7.042 |
| M9.0 | 1.25 | 8.972 | 8.760 | 8.160 | 8.042 |
| M10 | 1.50 | 9.968 | 9.732 | 8.994 | 8.862 |
| M12 | 1.75 | 11.966 | 11.701 | 10.829 | 10.679 |



1. ISO: METRIC COARSE SCREW THREADS
- Range: M1.7 to M12 Coarse machine screw nominal dia. & tolerance.
 - Thread Tolerance class 6g.
 - 2.1 Inspection:pass 6g ring gauge during production.
 - 2.2 Acceptance:pass 6h ring gauge after surface treatment.

- 一· ISO標準公制粗牙螺絲螺紋
- 範圍：從M1.7到M12的粗牙機器螺絲釘外螺紋的公稱直徑及公差。
 - 螺紋公差等級為6g
 - 2.1 生產製造時用6g規格環規作為準則
 - 2.2 成品表面處理後用6h規格環規驗貨

BSW Unified Coarse Screw (Thread 55°) BSW韋氏牙規格尺寸及公差 (外螺紋55°)

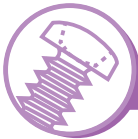
Unit: mm

| Nominal Size | Threads Per Inch | Major Diameter | |
|--------------|------------------|----------------|--------|
| | | (Max) | (Min) |
| 1/16 | 60 | 1.560 | 1.470 |
| 3/32 | 48 | 2.361 | 2.155 |
| 1/8 | 40 | 3.155 | 3.045 |
| 5/32 | 32 | 3.945 | 3.795 |
| 3/16 | 24 | 4.742 | 4.592 |
| 1/4 | 20 | 6.330 | 6.160 |
| 5/16 | 18 | 7.910 | 7.720 |
| 3/8 | 16 | 9.500 | 9.310 |
| 7/16 | 14 | 11.082 | 10.892 |
| 1/2 | 12 | 12.670 | 12.460 |
| 9/16 | 12 | 14.258 | 14.047 |

2. BS:BSW COARSE SCREW THREADS
- Range: BSW from 1/16" to 9/16"
 - Tolerance class: 2A
- 二· 英制粗牙螺絲螺紋
- 尺寸範圍：BSW標準中由1/16" 至 9/16"
 - 公差等級：2A

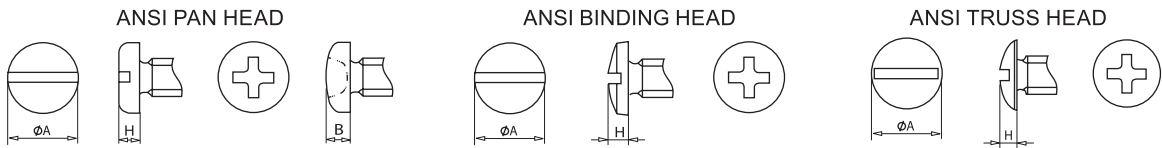
Self Tapping Screw Threads 自攻螺絲釘螺紋

Machine Screw Threads 機器螺絲釘螺紋



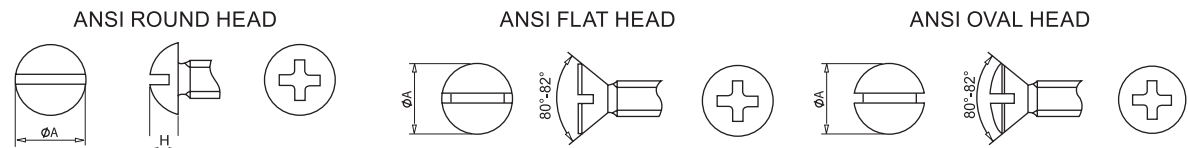
Types of Head 螺絲釘頭型

ANSI 標準頭型系列尺寸



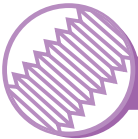
Unit: mm

| Nominal Size | Type Of Head | TYPE OF HEAD AND DIMENSIONS | | | | | | | | | | | |
|--------------|--------------|-----------------------------|-------|------------------|------|------------------|------|------------------|-------|-----------------|------|----------------|-------|
| | | PAN HEAD (P) | | | | | | BINDING HEAD (B) | | | | TRUSS HEAD (T) | |
| | | Head Dia. (A) | | Slotted Head (H) | | Crossed Head (B) | | Head Dia. (A) | | Head Height (H) | | Head Dia. (A) | |
| | | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min |
| 0 | 1.52 | 2.95 | 2.64 | 0.99 | 0.79 | 1.12 | 0.91 | 3.20 | 3.02 | 0.81 | 0.66 | 3.33 | 3.02 |
| 1 | 1.85 | 3.61 | 3.30 | 1.17 | 0.97 | 1.35 | 1.12 | 3.89 | 3.68 | 1.04 | 0.89 | 4.17 | 3.78 |
| 2 | 2.18 | 4.24 | 3.94 | 1.35 | 1.14 | 1.57 | 1.35 | 4.60 | 4.34 | 1.27 | 1.09 | 4.93 | 4.57 |
| 3 | 2.51 | 4.90 | 4.57 | 1.52 | 1.30 | 1.80 | 1.57 | 5.28 | 5.00 | 1.50 | 1.32 | 5.74 | 5.36 |
| 4 | 2.84 | 5.56 | 5.21 | 1.73 | 1.47 | 2.03 | 1.78 | 5.97 | 5.66 | 1.73 | 1.55 | 6.53 | 6.12 |
| 5 | 3.18 | 6.22 | 5.87 | 1.90 | 1.65 | 2.26 | 2.01 | 6.68 | 6.32 | 1.98 | 1.75 | 7.34 | 6.91 |
| 6 | 3.51 | 6.86 | 6.50 | 2.08 | 1.83 | 2.46 | 2.21 | 7.37 | 6.99 | 2.21 | 1.98 | 8.15 | 7.70 |
| 7 | 3.84 | 7.52 | 7.14 | 2.26 | 2.01 | 2.69 | 2.44 | - | - | - | - | 8.94 | 8.46 |
| 8 | 4.17 | 8.18 | 7.77 | 2.44 | 2.16 | 2.92 | 2.67 | 8.74 | 8.28 | 2.67 | 2.41 | 9.75 | 9.25 |
| 10 | 4.83 | 9.47 | 9.07 | 2.79 | 2.51 | 3.38 | 3.10 | 10.13 | 9.60 | 3.12 | 2.84 | 11.38 | 10.80 |
| 12 | 5.49 | 10.80 | 10.34 | 3.18 | 2.84 | 3.84 | 3.53 | 11.53 | 10.92 | 3.58 | 3.30 | 12.98 | 12.37 |
| 1/4 | 6.35 | 12.50 | 12.01 | 3.66 | 3.30 | 4.44 | 4.11 | 13.34 | 12.65 | 4.19 | 3.86 | 14.55 | 13.87 |



Unit: mm

| Nominal Size | Type Of Head | TYPE OF HEAD AND DIMENSIONS | | | | | | | | | | | |
|--------------|--------------|-----------------------------|-------|-------------|------|---------------|-------|------------|-----|---------------|-------|------------|-----|
| | | Round Head (R) | | | | Flat Head (K) | | | | Oval Head (D) | | | |
| | | Head Dia. | | Head Height | | Head Dia. | | Head Angle | | Head Dia. | | Head Angle | |
| | | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min |
| 0 | 1.52 | 2.87 | 2.51 | 1.35 | 1.09 | 3.02 | 2.51 | 80° ~ 82° | | 3.02 | 2.51 | 80° ~ 82° | |
| 1 | 1.85 | 3.51 | 3.10 | 1.55 | 1.30 | 3.71 | 3.12 | | | 3.71 | 3.12 | | |
| 2 | 2.18 | 4.11 | 3.71 | 1.75 | 1.50 | 4.37 | 3.73 | | | 4.37 | 3.73 | | |
| 3 | 2.51 | 4.75 | 4.29 | 1.98 | 1.70 | 5.05 | 4.34 | | | 5.05 | 4.34 | | |
| 4 | 2.84 | 5.36 | 4.90 | 2.18 | 1.90 | 5.72 | 4.95 | | | 5.72 | 4.95 | | |
| 5 | 3.18 | 5.99 | 5.51 | 2.41 | 2.11 | 6.40 | 5.59 | | | 6.40 | 5.59 | | |
| 6 | 3.51 | 6.60 | 6.10 | 2.62 | 2.31 | 7.09 | 6.20 | | | 7.09 | 6.20 | | |
| 7 | 3.84 | 7.24 | 6.71 | 2.82 | 2.51 | 7.75 | 6.81 | | | 7.75 | 6.81 | | |
| 8 | 4.17 | 7.85 | 7.29 | 3.05 | 2.72 | 8.43 | 7.42 | | | 8.43 | 7.42 | | |
| 10 | 4.83 | 9.12 | 8.48 | 3.48 | 3.12 | 9.78 | 8.64 | | | 9.78 | 8.64 | | |
| 12 | 5.49 | 10.36 | 9.70 | 3.89 | 3.53 | 11.13 | 9.88 | | | 11.13 | 9.88 | | |
| 1/4 | 6.35 | 11.99 | 11.25 | 4.44 | 4.06 | 12.88 | 11.48 | | | 12.88 | 11.48 | | |

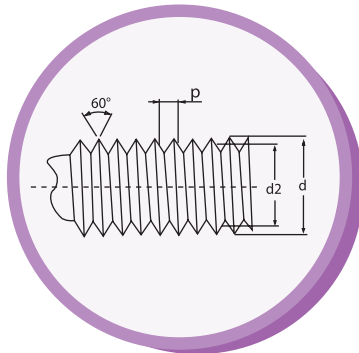


Machine Screw Threads 機器螺絲釘螺紋

ANSI Unified Coarse Screw (Thread 60°) 美制粗牙螺紋的規格及公差 (外螺紋60°)

Unit: mm

| Nominal Size | Threads Per Inch | d (Major diameter) | | d2 (Major diameter) | |
|--------------|------------------|--------------------|--------|---------------------|--------|
| | | (Max) | (Min) | (Max) | (Min) |
| NO:1 | 64 | 1.838 | 1.743 | 1.582 | 1.532 |
| NO:2 | 56 | 2.168 | 2.066 | 1.874 | 1.822 |
| NO:3 | 48 | 2.496 | 2.383 | 2.153 | 2.096 |
| NO:4 | 40 | 2.824 | 2.695 | 2.413 | 2.350 |
| NO:5 | 40 | 3.154 | 3.026 | 2.743 | 2.678 |
| NO:6 | 32 | 3.484 | 3.333 | 2.969 | 2.899 |
| NO:8 | 32 | 4.142 | 3.991 | 3.672 | 3.544 |
| NO:10 | 24 | 4.800 | 4.618 | 4.112 | 4.029 |
| NO:12 | 24 | 5.461 | 5.279 | 4.772 | 4.687 |
| 1/4 | 20 | 6.322 | 6.117 | 5.496 | 5.403 |
| 5/16 | 18 | 7.907 | 7.687 | 6.990 | 6.889 |
| 3/8 | 16 | 9.491 | 9.254 | 8.460 | 8.349 |
| 7/16 | 14 | 11.076 | 10.816 | 9.898 | 9.779 |
| 1/2 | 13 | 12.661 | 12.386 | 11.392 | 11.265 |



3. ANSI: UNIFIED COARSE SCREW THREADS

- Size range: ANSI NO.1-64 UNC to 1/2"-13 UNC
- Tolerance Class: 2A.

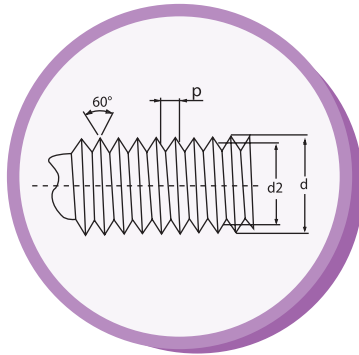
三. 美制粗牙螺絲螺紋

- 尺寸範圍: ANSI標準中 NO.1-64UNC至1/2"-13UNC
- 公差等級: 2A

ANSI Unified Coarse Screw (Thread 60°) 美制細牙規格及公差 (外螺紋60°)

Unit: mm

| Nominal Size | Threads Per Inch | d (Major diameter) | | d2 (Major diameter) | |
|--------------|------------------|--------------------|--------|---------------------|--------|
| | | (Max) | (Min) | (Max) | (Min) |
| NO:2 | 64 | 2.169 | 2.073 | 1.912 | 1.862 |
| NO:3 | 56 | 2.496 | 2.393 | 2.202 | 2.147 |
| NO:4 | 48 | 2.827 | 2.713 | 2.484 | 2.424 |
| NO:5 | 44 | 3.157 | 3.036 | 2.781 | 2.718 |
| NO:6 | 40 | 3.484 | 3.356 | 3.073 | 3.008 |
| NO:8 | 36 | 4.145 | 4.006 | 3.688 | 3.617 |
| NO:10 | 32 | 4.803 | 4.651 | 4.287 | 4.212 |
| NO:12 | 28 | 5.461 | 5.296 | 4.871 | 4.791 |
| 1/4 | 28 | 6.324 | 6.160 | 5.735 | 5.652 |
| 5/16 | 24 | 7.909 | 7.727 | 7.221 | 7.128 |
| 3/8 | 24 | 9.497 | 9.315 | 8.808 | 8.713 |
| 7/16 | 20 | 11.079 | 10.874 | 10.254 | 10.147 |
| 1/2 | 20 | 12.666 | 12.462 | 11.841 | 11.732 |



4. ANSI: UNIFIED FINE SCREW THREADS

- Size range: ANSI NO.2-64 UNF to 1/2"-20 UNF
- Tolerance class: 2A

四. 美制細牙螺絲螺紋

- 尺寸範圍: ANSI標準中 NO.2-64 UNF至1/2"-20 UNF
- 公差等級: 2A

Tap Tite Screws

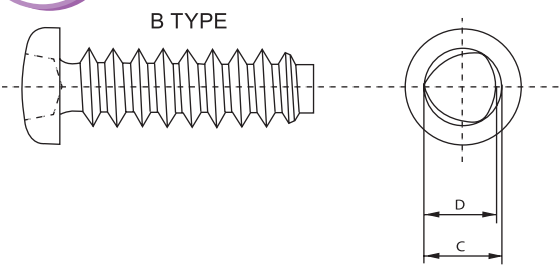
三角自攻螺絲

Hi/Lo Screw Threads

高低螺絲



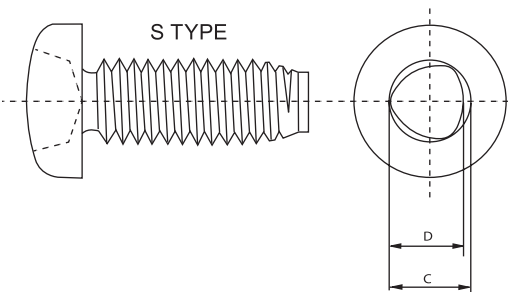
Tap Tite Screws 三角自攻螺絲



特點：螺絲牙距與普通自攻螺絲相同，適用於金屬板及塑料。

Unit: mm

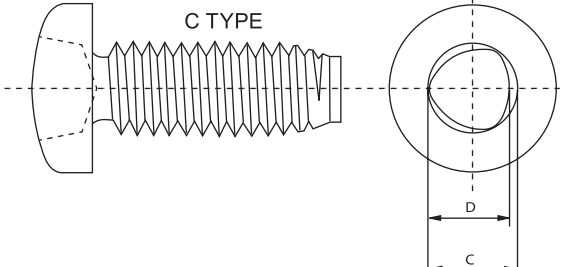
| Size | T.P.I. | Dia. | | | |
|------|--------|------|------|------|------|
| | | C mm | | D mm | |
| | | Max | Min | Max | Min |
| 2.0 | 40 | 2.04 | 1.96 | 1.96 | 1.88 |
| 2.3 | 32 | 2.34 | 2.26 | 2.26 | 2.18 |
| 2.6 | 28 | 2.64 | 2.56 | 2.55 | 2.47 |
| 3.0 | 24 | 3.05 | 2.95 | 2.95 | 2.85 |
| 3.5 | 20 | 3.55 | 3.45 | 3.46 | 3.34 |
| 4.0 | 18 | 4.05 | 3.95 | 3.91 | 3.81 |
| 5.0 | 16 | 5.06 | 4.94 | 4.90 | 4.78 |
| 6.0 | 14 | 6.08 | 5.92 | 5.88 | 5.72 |
| 8.0 | 12 | 8.10 | 7.90 | 7.85 | 7.65 |



特點：螺絲牙距與機牙相同，適用於金屬板。

Unit: mm

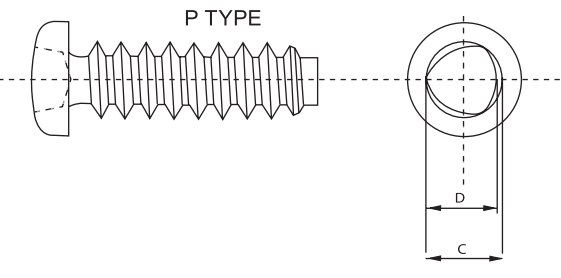
| Size | Pitch | Dia. | | | |
|------|-------|------|------|------|------|
| | | C mm | | D mm | |
| | | Max | Min | Max | Min |
| 2.0 | 0.4 | 2.04 | 1.96 | 1.90 | 1.81 |
| 2.3 | 0.4 | 2.34 | 2.26 | 2.26 | 2.18 |
| 2.5 | 0.45 | 2.55 | 2.47 | 2.46 | 2.38 |
| 2.6 | 0.45 | 2.65 | 2.57 | 2.56 | 2.48 |
| 3.0 | 0.5 | 3.05 | 2.97 | 2.95 | 2.87 |
| 3.5 | 0.6 | 3.55 | 3.48 | 3.44 | 3.36 |
| 4.0 | 0.7 | 4.07 | 3.99 | 3.93 | 3.85 |
| 5.0 | 0.8 | 5.08 | 5.00 | 4.92 | 4.84 |
| 6.0 | 1.0 | 6.10 | 6.00 | 5.90 | 5.80 |
| 8.0 | 1.25 | 8.13 | 8.03 | 7.88 | 7.78 |



特點：與機牙及TYPE C之鋼牙相同，並且可配合螺帽。

Unit: mm

| Size | Pitch | Dia. | | | |
|------|-------|------|------|------|------|
| | | C mm | | D mm | |
| | | Max | Min | Max | Min |
| 2.0 | 0.4 | 1.98 | 1.89 | 1.90 | 1.81 |
| 2.3 | 0.4 | 2.28 | 2.19 | 2.20 | 2.11 |
| 2.5 | 0.45 | 2.48 | 2.38 | 2.39 | 2.29 |
| 2.6 | 0.45 | 2.58 | 2.48 | 2.49 | 2.39 |
| 3.0 | 0.5 | 2.98 | 2.87 | 2.88 | 2.77 |
| 3.5 | 0.6 | 3.47 | 3.36 | 3.35 | 3.24 |
| 4.0 | 0.7 | 3.97 | 3.84 | 3.83 | 3.70 |
| 5.0 | 0.8 | 4.97 | 4.84 | 4.81 | 4.68 |
| 6.0 | 1.0 | 5.97 | 5.82 | 5.77 | 5.62 |
| 8.0 | 1.25 | 7.96 | 7.79 | 7.74 | 7.54 |



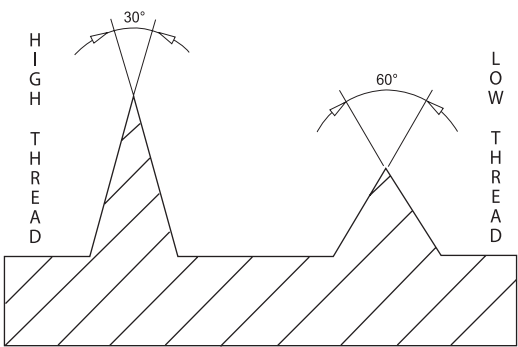
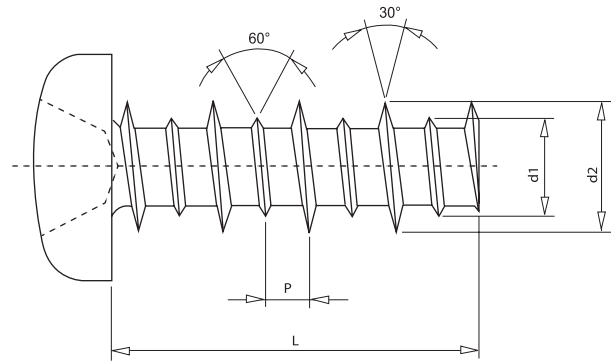
特點：只適用於塑料，有單絲，雙絲螺旋線螺紋之分。

Unit: mm

| Size | Pitch | Dia. | | | |
|------|------------|------|------|------|------|
| | | C mm | | D mm | |
| | | Max | Min | Max | Min |
| 2.0 | 0.794 (32) | 2.12 | 2.02 | 2.04 | 1.94 |
| 2.3 | 0.907 (28) | 2.43 | 2.33 | 2.35 | 2.25 |
| 2.5 | 1.058 (24) | 2.63 | 2.53 | 2.54 | 2.44 |
| 2.6 | 1.058 (24) | 2.73 | 2.63 | 2.64 | 2.54 |
| 3.0 | 1.270 (20) | 3.15 | 3.03 | 3.05 | 2.93 |
| 3.5 | 1.411 (18) | 3.66 | 3.54 | 3.57 | 3.45 |
| 4.0 | 1.588 (15) | 4.16 | 4.04 | 4.02 | 3.90 |
| 5.0 | 1.814 (14) | 5.19 | 5.05 | 5.03 | 4.89 |
| 6.0 | 2.117 (12) | 6.24 | 6.06 | 6.04 | 5.86 |
| 8.0 | 2.540 (10) | 8.30 | 8.08 | 8.05 | 7.93 |



Hi/Lo Screw Threads Screws For Plastic & Wood 高低螺絲



H/L screws have both 30° and 60° included thread angles ideal for plastics particle board, Masonite and wood.

Blind Hole Torsional Requirements 貫穿扭力要求

| Screw Size | | Min. Blind Hole Torque (lbs) | Screw Size | | Min. Blind Hole Torque (lbs) |
|------------|------------|------------------------------|------------|-------------|------------------------------|
| Inch | Metric | | Inch | Metric | |
| 2-32 | 2.2 x 0.79 | 3 | 12-16 | 5.5 x 1.59 | 52 |
| 3-28 | 2.6 x 0.9 | 5 | 13-16 | 5.8 x 1.59 | 65 |
| 4-24 | 2.9 x 1.06 | 7 | 1/4-15 | 6.3 x 1.69 | 110 |
| 5-20 | 3.1 x 1.27 | 11 | 9/32-16 | 7.2 x 1.59 | 152 |
| 6-19 | 3.5 x 1.34 | 13 | 19/64-16 | 7.5 x 1.59 | 170 |
| 7-19 | 4.0 x 1.34 | 21 | 5/16-14 | 8.0 x 1.81 | 185 |
| 8-18 | 4.2 x 1.41 | 25 | 21/64-18 | 8.3 x 1.41 | 306 |
| 9-18 | 4.7 x 1.41 | 36 | 11/32-14 | 9.0 x 1.81 | 306 |
| 10-16 | 4.8 x 1.59 | 36 | 3/8-13 | 9.5 x 1.95 | 370 |
| 11-16 | 5.3 x 1.59 | 43 | 27/64-13 | 10.6 x 1.97 | 560 |

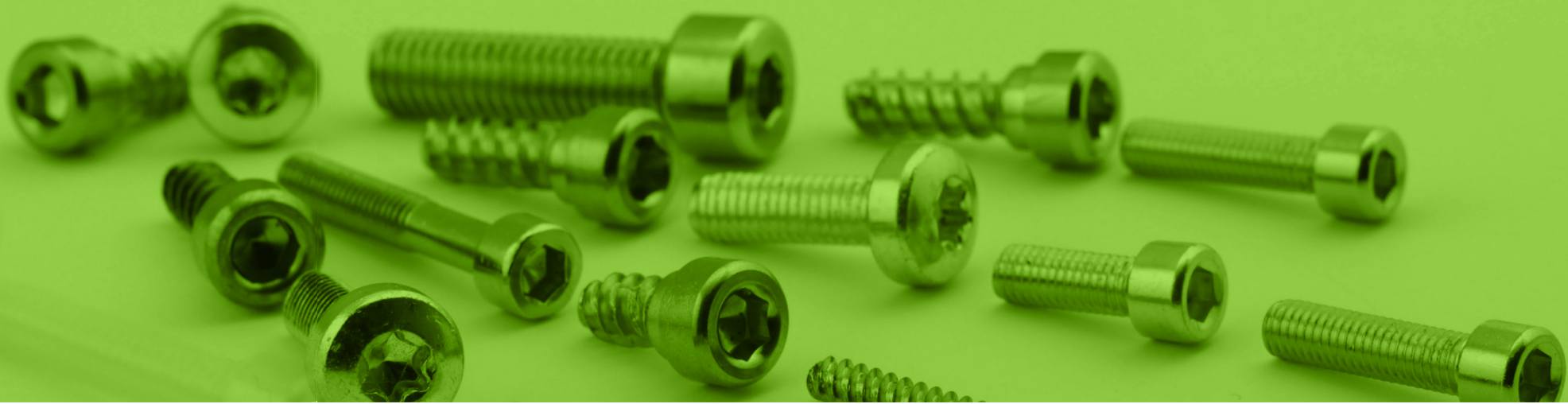
Recommended Minimum Lengths 建議最少長度

| Screw Size | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------------|------|------|------|------|------|------|------|-----|-----|
| Pan, Hex, Hex Washer Heads | 3/16 | 1/4 | 1/4 | 5/16 | 3/8 | 3/8 | 3/8 | 3/8 | 3/8 |
| Flat & Oval Heads | 1/4 | 5/16 | 5/16 | 3/8 | 7/16 | 7/16 | 7/16 | 1/2 | 1/2 |

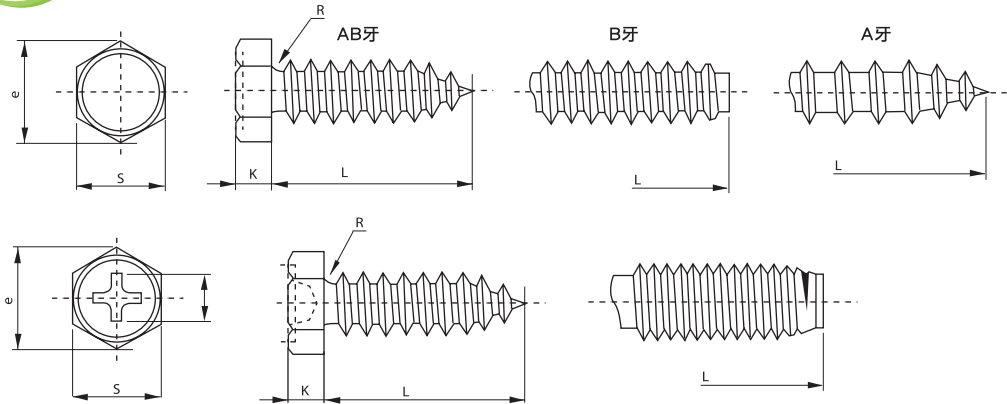
| Screw Size | 11 | 12 | 13 | 1/4 | 9/32 | 5/16 | 21/64 | 11/32 | 27/64 |
|----------------------------|-----|-----|-----|------|------|------|-------|-------|-------|
| Pan, Hex, Hex Washer Heads | 3/8 | 3/8 | 3/8 | 7/16 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| Flat & Oval Heads | 1/2 | 1/2 | 1/2 | 9/16 | 9/16 | 5/8 | 5/8 | 5/8 | 11/32 |

Hexagon Head & Hexagon Socket Screws

外六角頭及內六角頭螺絲



Indented Hexagon Head Tapping Screws 凹穴六角頭自攻螺絲釘



Unit: mm

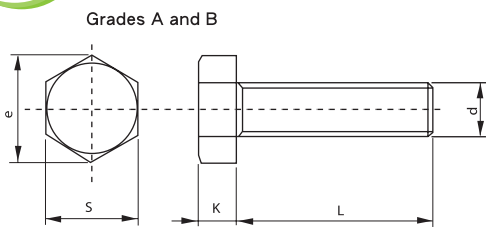
| Nominal Size | | 3 | 3.5 | 4 | 4.5 | 5 | 6 | 8 |
|--------------|-----------|------------|------|-----|-----|-----|------|-------------|
| S | Size | 5 | 5.5 | 7 | 7 | 8 | 10 | 12 |
| | Tolerance | +0 -0.2 | | | | | | +0 -0.25 |
| K | Size | 1.6 | 2.3 | 2.5 | 2.7 | 3 | 3.5 | 5 |
| | Tolerance | ±0.1 | | | | | | ±0.15 |
| E | Min | 5.5 | 6.05 | 7.7 | 7.7 | 8.7 | 10.9 | 13.1 |
| M | Ref. | 2.5 | 3.6 | 4.1 | 4.3 | 4.5 | 6.3 | 7.3 |

- 尺寸範圍：M3~M8
- 頭型、牙型

| Length | | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 56 | 60 |
|--------|-------|------------|---|---|----|----|----|----|----|----|----|------------|----|----|----|
| Tol. | A, AB | ±0.8 | | | | | | | | | | ±1.2 | | | |
| | B, C | +0 -0.8 | | | | | | | | | | +0 -1.2 | | | |



Hexagon Head Screws 六角頭螺絲釘

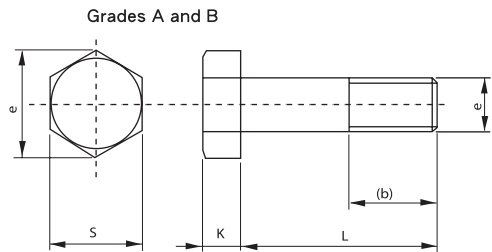


Unit: mm

| Thread Size | | M4 | M5 | M6 | M8 | M10 | M12 | M14 |
|-------------|---|------|------|-------|-------|-------|-------|-------|
| Pitch | | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 1.75 | 2 |
| K | | 2.8 | 3.5 | 4 | 5.3 | 6.4 | 7.5 | 8.8 |
| e | A | 7.66 | 8.79 | 11.05 | 14.38 | 18.9 | 21.1 | 24.49 |
| | B | - | 8.63 | 10.89 | 14.2 | 18.72 | 20.88 | 23.91 |
| S | | 7 | 8 | 10 | 13 | 17 | 19 | 22 |
| L | | 8-40 | 8-40 | 8-50 | 12-60 | 16-60 | 20-80 | 25-80 |



Hexagon Head Bolts 六角頭螺栓

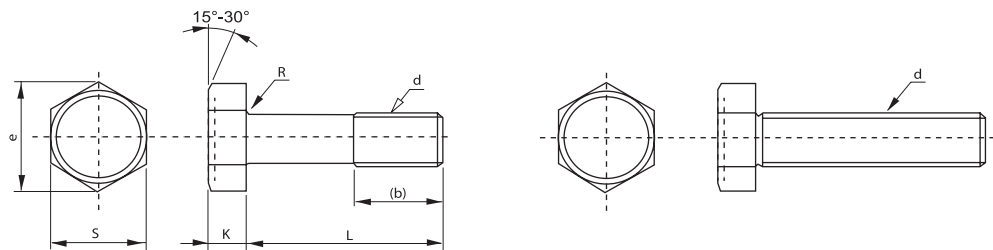


Unit: mm

| Thread Size | | M4 | M5 | M6 | M8 | M10 | M12 | M14 |
|-------------|---------------|-------|-------|-------|-------|--------|--------|--------|
| Pitch | | 0.7 | 0.8 | 1 | 1.25 | 1.5 | 1.75 | 2 |
| b | L ≤ 125 | 14 | 16 | 18 | 22 | 26 | 30 | 34 |
| | 125 < L ≤ 200 | - | 22 | 24 | 28 | 32 | 36 | 40 |
| | L > 200 | - | - | - | - | 45 | 49 | 53 |
| K | | 2.8 | 3.5 | 4 | 5.3 | 6.4 | 7.5 | 8.8 |
| e | A | 7.66 | 8.79 | 11.05 | 14.38 | 18.9 | 21.1 | 24.49 |
| | B | - | 8.63 | 10.89 | 14.20 | 18.72 | 20.88 | 23.91 |
| S | | 7 | 8 | 10 | 13 | 17 | 19 | 22 |
| L | | 25-40 | 25-50 | 30-60 | 35-80 | 40-100 | 45-120 | 50-140 |



Indented Hexagon Head Machine Screws 凹穴六角頭機器螺絲釘



Unit: mm

| Nominal Size | | M1.6 | M2 | M2.5 | M3 | M3.5 | M4 | M5 | M6 | M8 | M10 | M12 |
|--------------|-----------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| S | Size | 3.2 | 4 | 5 | 5.5 | 6 | 7 | 8 | 10 | 13 | 16 | 18 |
| | Tolerance | +0 | +0 | +0 | +0 | +0 | +0 | +0 | +0 | +0 | +0 | +0 |
| E | Min | -0.18 | -0.18 | -0.18 | -0.3 | -0.3 | -0.36 | -0.36 | -0.36 | -0.43 | -0.43 | -0.43 |
| K | Size | 1.1 | 1.4 | 1.7 | 2 | 2.4 | 2.8 | 3.5 | 4 | 5.3 | 6.4 | 7.5 |
| | Tolerance | ±0.12 | ±0.12 | ±0.12 | ±0.2 | ±0.2 | ±0.2 | ±0.24 | ±0.24 | ±0.24 | ±0.29 | ±0.29 |

| Length | | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 80 | 90 | 100 | 110 | 120 |
|--------|--|----|----|------|----|----|----|------|----|----|----|-------|----|----|-----|-----|-----|
| Tol. | | ±1 | | ±1.2 | | | | ±1.5 | | | | ±1.75 | | | | | |

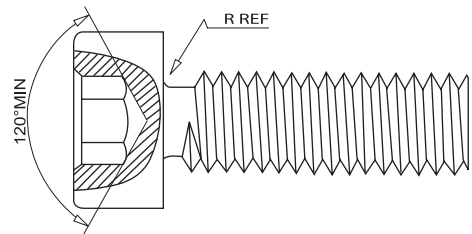
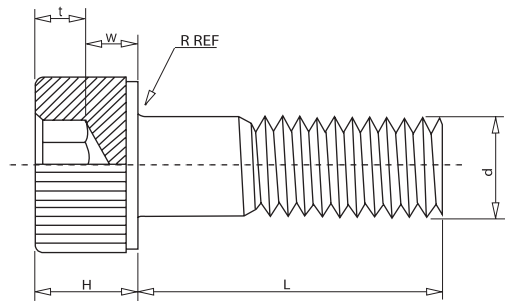
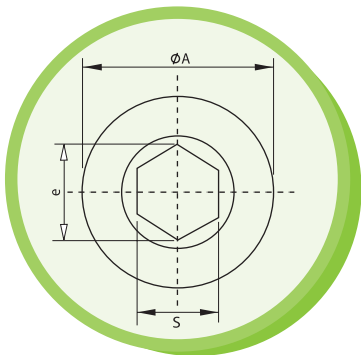
注：牙長b之公差為+3P (pitch 牙距)

Hexagon Head & Hexagon Socket Screws

外六角頭及內六角頭螺絲



Hexagon Socket Head Cap Screws 內六角杯頭螺釘



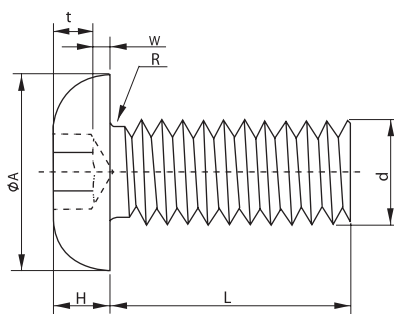
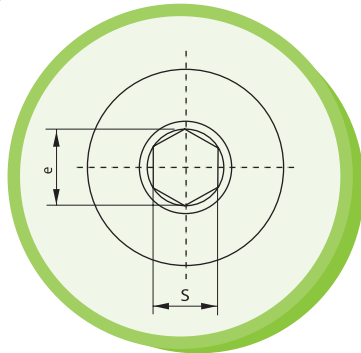
Dimensions of Metric Socket Head Cap Screws

Unit: mm

| Nominal Size | Head Diameter (A) | | Head Height (H) | | Across Flats (S) | | | e | t | w |
|--------------|-------------------|-------|-----------------|-------|------------------|-------|-------|-------|-----|------|
| | Max | Min | Max | Min | Size | Max | Min | Min | Min | Min |
| M1.6 x 0.35 | 3.14 | 2.86 | 1.6 | 1.46 | 1.5 | 1.56 | 1.52 | 1.73 | 0.7 | 0.55 |
| M2 x 0.4 | 3.98 | 3.62 | 2.0 | 1.86 | 1.5 | 1.56 | 1.52 | 1.73 | 1.0 | 0.55 |
| M2.5 x 0.45 | 4.68 | 4.32 | 2.5 | 2.36 | 2.0 | 2.06 | 2.02 | 2.30 | 1.1 | 0.85 |
| M3 x 0.5 | 5.68 | 5.32 | 3.0 | 2.86 | 2.5 | 2.58 | 2.52 | 2.87 | 1.3 | 1.15 |
| M4 x 0.7 | 7.22 | 6.78 | 4.0 | 3.82 | 3.0 | 3.08 | 3.02 | 3.44 | 2.0 | 1.4 |
| M5 x 0.8 | 8.72 | 8.28 | 5.0 | 4.82 | 4.0 | 4.10 | 4.02 | 4.58 | 2.5 | 1.9 |
| M6 x 1.0 | 10.22 | 9.78 | 6.0 | 5.70 | 5.0 | 5.14 | 5.02 | 5.72 | 3.0 | 2.3 |
| M8 x 1.25 | 13.27 | 12.73 | 8.0 | 7.64 | 6.0 | 6.14 | 6.02 | 6.86 | 4.0 | 3.3 |
| M10 x 1.5 | 16.27 | 15.73 | 10.0 | 9.64 | 8.0 | 8.18 | 8.03 | 9.15 | 5.0 | 4.0 |
| M12 x 1.75 | 18.27 | 17.73 | 12.0 | 11.57 | 10.0 | 10.18 | 10.03 | 11.43 | 6.0 | 4.8 |



Hexagon Socket Button Head Screws 內六角扁圓頭螺絲釘



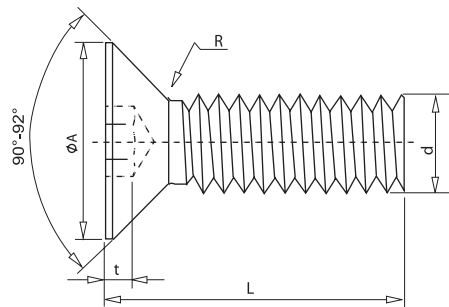
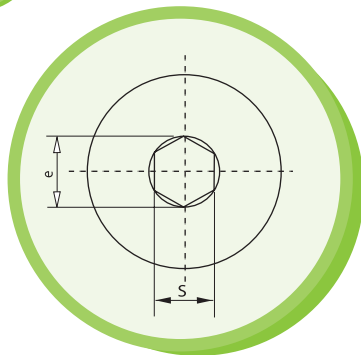
Dimensions of Metric Hexagon Socket Head

Unit: mm

| Nominal Size | Head Diameter (A) | | Head Height (H) | | Across Flats (S) | | | e | t | w |
|--------------|-------------------|-------|-----------------|------|------------------|-------|------|------|------|------|
| | Max | Min | Max | Min | Size | Max | Min | Min | Min | Min |
| M3 x 0.5 | 5.7 | 5.4 | 1.65 | 1.4 | 2.0 | 2.045 | 2.02 | 2.30 | 1.04 | 0.2 |
| M4 x 0.7 | 7.6 | 7.24 | 2.2 | 1.95 | 2.5 | 2.56 | 2.52 | 2.87 | 1.30 | 0.3 |
| M5 x 0.8 | 9.5 | 9.14 | 2.75 | 2.5 | 3.0 | 3.08 | 3.02 | 3.44 | 1.56 | 0.38 |
| M6 x 1 | 10.5 | 10.07 | 3.3 | 3.0 | 4.0 | 4.10 | 4.02 | 4.58 | 2.08 | 0.74 |
| M8 x 1.25 | 14 | 13.57 | 4.4 | 4.1 | 5.0 | 5.10 | 5.02 | 5.72 | 2.60 | 1.05 |
| M10 x 1.5 | 17.5 | 17.07 | 5.5 | 5.2 | 6.0 | 6.10 | 6.02 | 6.86 | 3.12 | 1.45 |
| M12 x 1.75 | 21 | 20.48 | 6.6 | 6.24 | 8.0 | 8.12 | 8.03 | 9.15 | 4.16 | 1.63 |



Hexagon Socket Countersunk Head Cap Screws 內六角“F”頭螺絲釘



Dimensions of Hexagon Socket Countersunk Head Screws

Unit: mm

| Nominal Size | Head Diameter (A) | | Across Flats (S) | | | e | t |
|--------------|-------------------|-------|------------------|------|------|------|------|
| | Max | Min | Size | Max | Min | Min | Min |
| M3 x 0.5 | 6.0 | 5.70 | 2.0 | 2.10 | 2.02 | 2.30 | 0.95 |
| M4 x 0.7 | 8.0 | 7.64 | 2.5 | 2.60 | 2.52 | 2.87 | 1.55 |
| M5 x 0.8 | 10.0 | 9.64 | 3.0 | 3.10 | 3.02 | 3.44 | 2.05 |
| M6 x 1 | 12.0 | 11.57 | 4.0 | 4.12 | 4.02 | 4.58 | 2.25 |
| M8 x 1.25 | 16.0 | 15.57 | 5.0 | 5.14 | 5.02 | 5.72 | 3.20 |
| M10 x 1.5 | 20.0 | 19.48 | 6.0 | 6.14 | 6.02 | 6.86 | 4.10 |
| M12 x 1.75 | 24.0 | 23.48 | 8.0 | 8.18 | 8.03 | 9.15 | 4.30 |

JIS Tolerance on Length

日制長度公差標準



JIS Tolerance on Length 日制長度公差標準

| Type Of Thread | Length | Tolerance |
|----------------|-------------|-----------|
| Type b | Under 16 MM | 0 |
| | | -0.8 |
| Type B | 16 ~ 36 MM | 0 |
| Type C | | -1.2 |
| | Above 36 | 0 |
| | | -1.6 |
| Type A | Under 25 MM | ±0.8 |
| Type AB | Above 25 MM | ±1.2 |

Machine 機牙

| Lenght (L) \ Diameter | M2.6≧Ø | M2.6<Ø≦M4.5 | Above M4.5 |
|-----------------------|--------|-------------|------------|
| 4≦L | 0 | - | - |
| | -0.3 | - | - |
| 4<L≦10 | 0 | 0 | 0 |
| | -0.4 | -0.6 | -0.8 |
| 10<L≦20 | 0 | 0 | 0 |
| | -0.6 | -0.6 | -1 |
| 20<L≦40 | 0 | 0 | 0 |
| | -0.8 | -0.8 | -1 |
| Above 40 | - | 0 | 0 |
| | - | -1 | -1 |

Mechincal Properties of Self-tapping Screw after Case Hardening

自攻螺絲滲炭後機械特性

1. Hardness 硬度標準

| Material | Surface Hardness | | Core Hardness | |
|---------------|------------------|-------|---------------|-------|
| | Min | Max | Min | Max |
| C1018 / C1022 | HV450 | HV750 | HV200 | HV400 |
| | HRC46 | HRC61 | HRC17 | HRC42 |

2. Torsional Strength 扭力要求

| Min Torsion (kgf.cm) \ Dia. | Ø2.0 | Ø2.6 | Ø3.0 | Ø3.5 | Ø4.0 | Ø4.5 | Ø5.0 | Ø6.0 |
|-----------------------------|------|------|------|------|------|------|------|------|
| Type A | - | - | 14 | 23 | 36 | 49 | 66 | 120 |
| Type AB, B | 4.3 | 9.0 | 16 | 26 | 36 | 53 | 72 | 130 |
| Type C | 4.0 | 9.3 | 17 | 26 | 36 | 57 | 81 | 135 |

ANSI Tolerance on Length

美制長度公差標準



ANSI Tolerance on Length 美制長度公差標準

Self-tapping 自攻螺絲釘

| Type Of Thread | Length | Tolerance |
|----------------|----------------|-----------|
| Type A, AB | L ≦ 1" | ±0.03" |
| | L 1" | ±0.05" |
| Type B | L ≦ 3/4" | -0.03" |
| | 3/4<L ≦ 1-1/2" | -0.05" |
| | L > 1-1/2" | -0.06" |

Machine 機牙

| Nominal Dia. | UNC #0~#12 | UNC 1/4" ~ 3/4" |
|--------------|------------|-----------------|
| Length (L) | Tolerance | |
| L ≦ 1/2" | -0.02" | -0.05" |
| 1/2"<L ≦ 1" | -0.03" | -0.03" |
| 1"<L ≦ 2" | -0.06" | -0.06" |
| 2"<L | -0.09" | -0.09" |

Mechanical Properties of Self-tapping Screw after Case Hardening

自攻螺絲滲炭後機械特性

1. Hardness 硬度標準

| Material | Surface Hardness | | Core Hardness | |
|---------------|------------------|-------|---------------|-------|
| | Min | Max | Min | Max |
| C1022 / C1022 | HV450 | HV750 | HV200 | HV400 |
| | HRC46 | HRC61 | HRC17 | HRC42 |

2. Torsional Strength 扭力要求

| Nominal Dia. | #3 | #4 | #5 | #6 | #7 | #8 | #10 | #12 |
|----------------|------|----|------|------|------|------|------|-----|
| Torsion kgf.cm | 10.4 | 15 | 20.7 | 27.6 | 34.5 | 44.9 | 64.5 | 101 |

完備產品系列
滿足每個獨特要求



Complete range of products
Meet every specific need

Sems Screws/ Screws With Washers

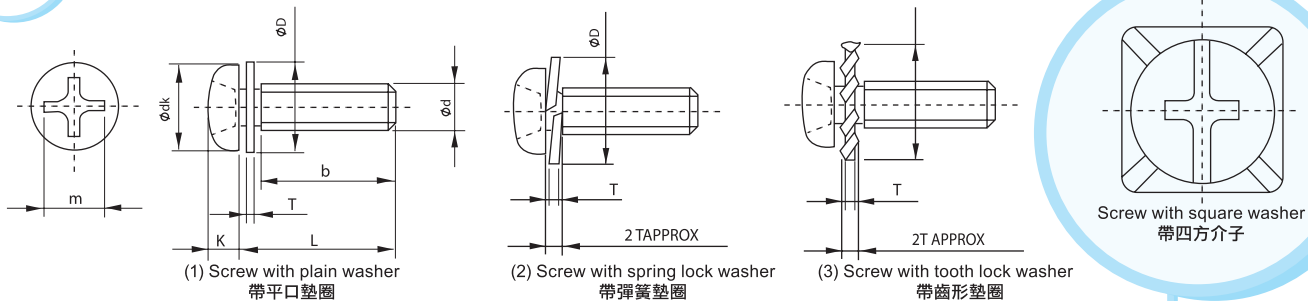
帶墊圈螺絲

Nuts

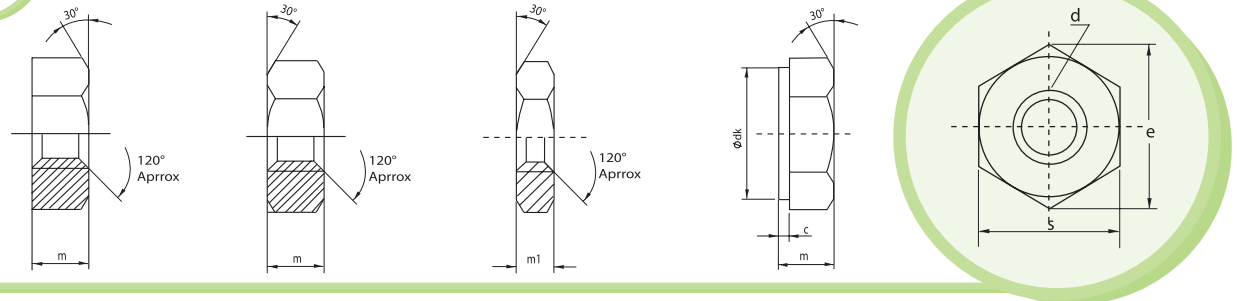
各類螺母



Sems Screws/Screws With Washers 帶墊圈螺絲



Hexagon Nuts 六角螺母



Hexagon nuts-finished (常見成品尺寸)

| Nominal designation of screw thread (d) | | m | | m1 | | s | | e |
|---|------------|-----------------|-----------------------|-----------------|-----------------------|-----------------|-----------------------|---------|
| Coarse | Fine | Basic dimension | Permissible deviation | Basic dimension | Permissible deviation | Basic dimension | Permissible deviation | Approx. |
| M2 | - | 1.6 | 0 -0.25 | 1.2 | 0 -0.25 | 4 | 0 -0.2 | 4.6 |
| [M2.2] | - | 1.8 | | 1.4 | | 4.5 | | 5.2 |
| M2.5 | - | 2 | | 1.6 | | 5 | | 5.8 |
| M3 | - | 2.4 | 0 -0.30 | 1.8 | 0 -0.30 | 5.5 | 0 -0.25 | 6.4 |
| [M3.5] | - | 2.8 | | 2 | | 6 | | 6.9 |
| M4 | - | 3.2 | | 2.4 | | 7 | | 8.1 |
| [M4.5] | - | 3.6 | 0 -0.36 | 2.8 | 0 -0.36 | 8 | 0 -0.35 | 9.2 |
| M5 | - | 4 | | 3.2 | | 8 | | 9.2 |
| M6 | - | 5 | | 3.6 | | 10 | | 11.5 |
| [M7] | - | 5.5 | 0 -0.36 | 4.2 | 0 -0.36 | 11 | | 12.7 |
| M8 | M8 x 1.25 | 6.5 | | 5 | | 13 | | 15 |
| M10 | M10 x 1.5 | 8 | | 6 | | 17 | | 19.6 |
| M12 | M12 x 1.15 | 10 | | 7 | | 19 | | 21.9 |

Unit: mm

Size and tolerance 尺寸及公差

Unit: mm

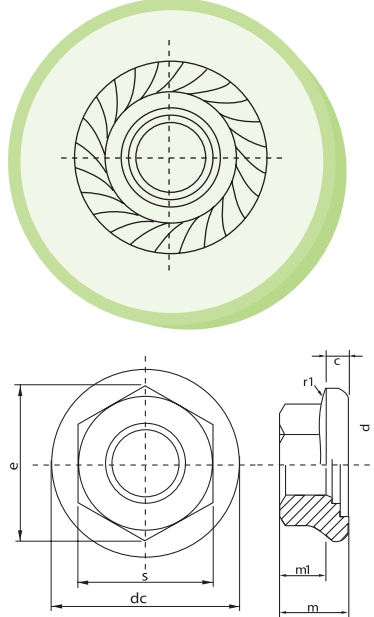
| Nominal Size | | M2 | M2.5 | M3 | M3.5 | M4 | M5 | M6 | M8 |
|------------------|----------------------|------------|---------------|----------------|--------------|--------------|--------------|---------------|----------------|
| Head Diameter dk | Size | 3.5 | 4.5 | 5.5 | 6 | 7 | 9 | 10.5 | 14 |
| | Tol. | +0 -0.4 | +0 -0.4 | +0 -0.5 | +0 -0.5 | +0 -0.5 | +0 -0.6 | +0 -0.7 | +0 -0.8 |
| Head Height k | Size | 1.3 | 1.7 | 2 | 2.3 | 2.6 | 3.3 | 3.9 | 5.2 |
| | Tol. | ±0.1 | ±0.1 | ±0.15 | ±0.15 | ±0.15 | ±0.15 | ±0.2 | ±0.2 |
| Plain washer | Small round | D | 4.3+0 -0.3 | 5+0 -0.3 | 6+0 -0.3 | 7+0 -0.35 | 8+0 -0.35 | 10+0 -0.35 | 11.5+0 -0.4 |
| | | T | 0.3±0.04 | 0.5±0.05 | 0.5±0.05 | 0.5±0.05 | 0.8±0.1 | 1.0±0.15 | 1.6±0.15 |
| | Polished round | D | 5+0 -0.3 | 6.5+0 -0.35 | 7+0 -0.35 | 9+0 -0.35 | 9+0 -0.35 | 10+0 -0.35 | 12.5+0 -0.4 |
| | | T | 0.3±0.04 | 0.5±0.05 | 0.5±0.05 | 0.5±0.05 | 0.8±0.1 | 1.0±0.1 | 1.6±0.15 |
| | Spring Washer | | | | | | | | |
| | Tooth Lock Washer | | | | | | | | |
| Spring Washer | D (Max) | | 4 | 4.8 | 5.5 | 6.2 | 7 | 8.5 | 11.5 |
| | T (Min) | | 0.5 | 0.6 | 0.7 | 0.8 | 1 | 1.3 | 1.5 |
| | Number O.T. of tooth | | - | - | 8 | 8 | 9 | 10 | 12 |



Hexagon Nuts With Flange 法蘭螺母

| Designation of screw thread | | s | | e | dc | dw | m | | M1 | c | r1 |
|-----------------------------|-------------|-----------------|-----------|-------|------|------|-----------------|------------|------|------|------|
| Coarse thread | Thread size | Basic dimension | Tolerance | Min. | Max. | Min. | Basic dimension | Tolerance | Min. | Max. | Min. |
| M4 | - | 7 | 0 -0.2 | 7.74 | 10.5 | 7.5 | 4.2 | 0 -0.75 | 2.4 | 0.6 | 0.6 |
| M5 | - | 8 | | 8.87 | 12 | 9 | 5 | | 3 | 0.7 | 0.7 |
| M6 | - | 10 | | 11.05 | 14 | 11 | 6 | | 3.6 | 0.8 | 0.8 |
| M8 | 1.25 | 12 | 0 -0.2 | 13.25 | 17.5 | 14.5 | 8 | 0 -0.90 | 4.8 | 1.0 | 1.1 |
| M10 | 1.5 | 14 | | 15.51 | 21 | 18 | 10 | | 6 | 1.2 | 1.4 |
| M12 | 1.7 | 17 | | 18.90 | 25 | 22 | 11.5 | | 7.2 | 1.4 | 1.6 |

Unit: mm

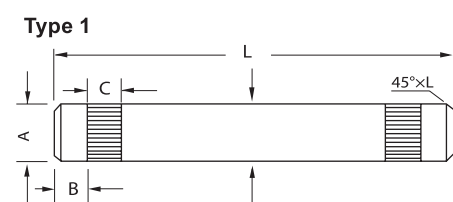


Shafts 五金軸

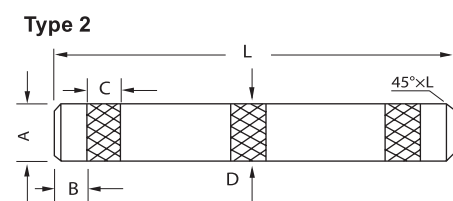


Shafts 五金軸

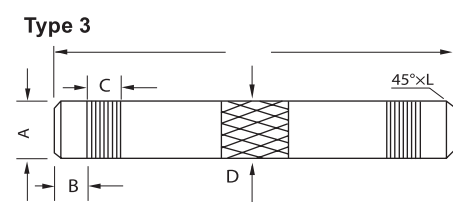
Thread Rolling Shaft 滾花軸



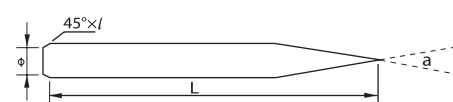
| | |
|----|-----|
| 材料 | 鐵 |
| | 銅 |
| | 不銹鋼 |



| | |
|----|-----|
| 花款 | 單花 |
| | 雙花 |
| | 三花 |
| | 四花 |
| | 打翼花 |



Sharp Shaft 磨尖軸



| | |
|----|------------|
| 線徑 | 0.8 - 10mm |
| 長度 | 4 - 150mm |

A: 軸徑 B: 光身位 C: 花長 D: 花徑 L: 軸長

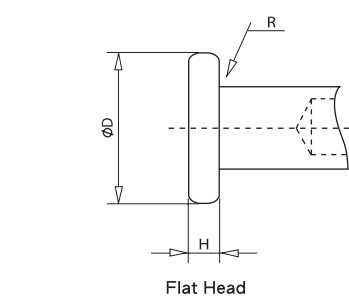
如有特別尺寸，可按貴公司圖紙生產。

Cold Head Rivets Pop Rivets & Eyelets 小五金啤件

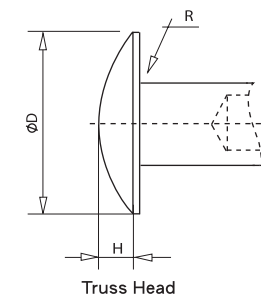


Cold Head Rivets, Pop Rivets & Eyelets 小五金啤件

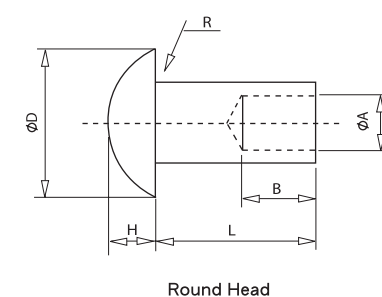
Semi-Tubular Rivets 尾孔鍋釘



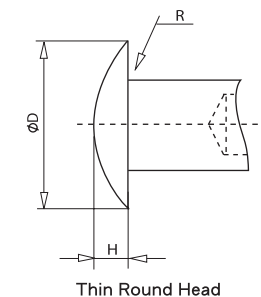
Flat Head



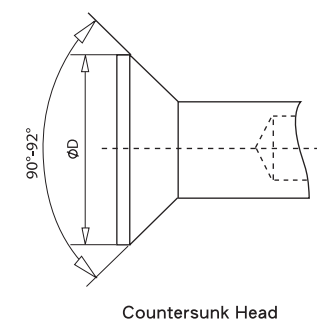
Truss Head



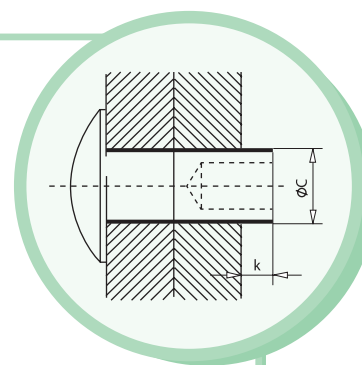
Round Head



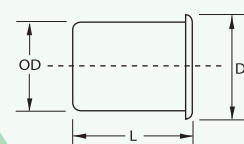
Thin Round Head



Countersunk Head



Eyelet 雞眼



Unit: mm

| Outside Dia | Length (Min) | Length (Max) | Head | Thickness |
|-------------|--------------|--------------|------|-----------|
| 1.5 | 2 | 8 | 3.5 | 0.2 |
| 1.6 | 2 | 8 | 3.5 | 0.2 |
| 1.7 | 2 | 8 | 3.5 | 0.2 |
| 1.8 | 2 | 8 | 3.5 | 0.2 |
| 2.0 | 2 | 10 | 3.5 | 0.2 |
| 2.3 | 2 | 11 | 3.5 | 0.2 |
| 2.4 | 3 | 11 | 3.5 | 0.2 |
| 2.5 | 3 | 13 | 4 | 0.2 |
| 2.6 | 3 | 13 | 4 | 0.2 |
| 2.8 | 3 | 15 | 4 | 0.2 |
| 3.0 | 3 | 18 | 4 | 0.2 |
| 3.5 | 3 | 20 | 4.5 | 0.2 |
| 4.0 | 4 | 22 | 5.5 | 0.25 |
| 4.5 | 4 | 22 | 5.5 | 0.25 |
| 5.0 | 5 | 22 | 5.5 | 0.25 |
| 5.5 | 5 | 22 | 6.5 | 0.25 |
| 6.0 | 6 | 22 | 7 | 0.25 |

如有特別尺寸，可按貴公司圖紙生產。

Washers

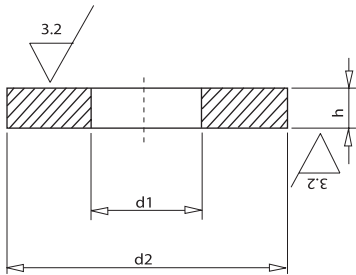
墊圈及五金片



Plain Circle Washers 平口圓形墊圈

Small Outer Diameter Plain Circle Washer 小外徑平口圓型墊圈 Unit: mm

| Nominal diameter | Inside diameter d1 | | Outside diameter d2 | | Thickness h | | |
|------------------|---------------------------|---------|---------------------------|---------|-----------------|---------|---------|
| | Basic dimension (Minimum) | Maximum | Basic dimension (Maximum) | Minimum | Basic dimension | Maximum | Minimum |
| 1.6 | 1.7 | 1.84 | 3.5 | 3.2 | 0.3 | 0.35 | 0.25 |
| 2 | 2.2 | 2.34 | 4.5 | 4.2 | 0.3 | 0.35 | 0.25 |
| 2.5 | 2.7 | 2.84 | 5 | 4.7 | 0.5 | 0.55 | 0.45 |
| 3 | 3.2 | 3.38 | 6 | 5.7 | 0.5 | 0.55 | 0.45 |
| 3.5 | 3.7 | 3.88 | 7 | 6.64 | 0.5 | 0.55 | 0.45 |
| 4 | 4.3 | 4.48 | 8 | 7.64 | 0.5 | 0.55 | 0.45 |
| 5 | 5.3 | 5.48 | 9 | 8.64 | 1 | 1.1 | 0.9 |
| 6 | 6.4 | 6.62 | 11 | 10.57 | 1.6 | 1.8 | 0.9 |
| 8 | 8.4 | 8.62 | 15 | 14.57 | 1.6 | 1.8 | 1.4 |
| 10 | 10.5 | 10.77 | 18 | 17.57 | 1.6 | 1.8 | 1.4 |
| 12 | 13 | 13.27 | 20 | 19.48 | 2 | 2.2 | 1.8 |
| 14 | 15 | 15.27 | 24 | 23.48 | 2.5 | 2.7 | 2.3 |
| 16 | 17 | 17.27 | 28 | 27.48 | 2.5 | 2.7 | 2.3 |
| 20 | 21 | 21.33 | 34 | 33.38 | 3 | 3.3 | 2.7 |
| 24 | 25 | 25.33 | 39 | 38.38 | 4 | 4.3 | 3.7 |

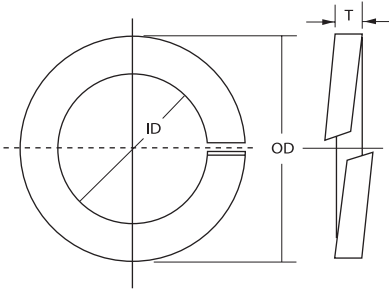


Spring Washer 開口彈弓介子

Unit: mm

| Metric | Thickness | Inside Dia | Outside Dia |
|--------|-----------|------------|-------------|
| M2 | 0.7 | 2.2 | 4.2 |
| M2.5 | 0.7 | 2.8 | 5 |
| M3 | 0.7 | 3.3 | 5.5 |
| M3 | 0.7 | 3.17 | 5.5 |
| M3.5 | 0.8 | 3.7 | 6.5 |
| M4 | 1.1 | 4.3 | 7.2 |
| M5 | 1.4 | 5.3 | 9 |
| M6.4 | 1.4 | 6.2 | 10 |
| M6.4 | 1.6 | 6.6 | 12 |
| M7 | 1 | 7.4 | 10.4 |
| M8 | 1.4 | 8.2 | 15 |
| M8 | 2 | 8.3 | 12.5 |
| M8 | 0.8 | 8.4 | 11.5 |
| M10 | 2.4 | 10.2 | 17.5 |
| M10.5 | 1.4 | 10.7 | 16 |
| M12 | 0.9 | 12.1 | 14.6 |

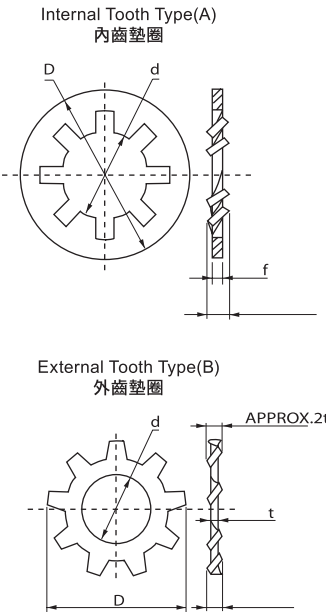
如有特別尺寸，可按貴公司圖紙生產。



Toothed Lock Washers 齒形墊圈

Unit: mm

| Nominal size | d | | D | | t | | No. of tooth | |
|--------------|-----------------|-----------|-----------------|-----------|-----------------|-----------|---------------------|---------------------|
| | Basic dimension | Tolerance | Basic dimension | Tolerance | Basic dimension | Tolerance | Internal tooth type | External tooth type |
| 2 | 2.2 | +0.2 0 | 4.8 | 0 | 0.3 | ±0.025 | 7 | 8 |
| 2.5 | 2.7 | | 5.7 | -0.3 | 0.3 | ±0.025 | 7 | 8 |
| 3 | 3.2 | | 6.5 | 0 -0.4 | 0.45 | ±0.035 | 8 | 8 |
| [3.5] | 3.7 | | 7.5 | | 0.45 | ±0.035 | 8 | 8 |
| 4 | 4.3 | +0.3 0 | 8.5 | | 0.5 | ±0.035 | 8 | 9 |
| [4.5] | 4.8 | | 9.5 | | 0.5 | ±0.035 | 8 | 9 |
| 5 | 5.3 | | 10 | 0 -0.5 | 0.6 | ±0.04 | 8 | 10 |
| 6 | 6.4 | | 11 | | 0.6 | ±0.04 | 8 | 10 |
| [7] | 7.4 | +0.4 0 | 13 | | 0.8 | ±0.05 | 9 | 12 |
| 8 | 8.4 | | 15 | | 0.8 | ±0.05 | 9 | 12 |
| 10 | 10.5 | | 18 | 0 -0.6 | 0.9 | ±0.055 | 10 | 12 |
| 12 | 12.5 | | 21 | | 1 | ±0.055 | 10 | 12 |
| [14] | 14.5 | +0.5 0 | 23 | | 1 | ±0.055 | 10 | 12 |
| 16 | 16.5 | | 26 | | 1.2 | ±0.065 | 12 | - |
| [18] | 19 | | 29 | | 1.2 | ±0.065 | 12 | 14 |

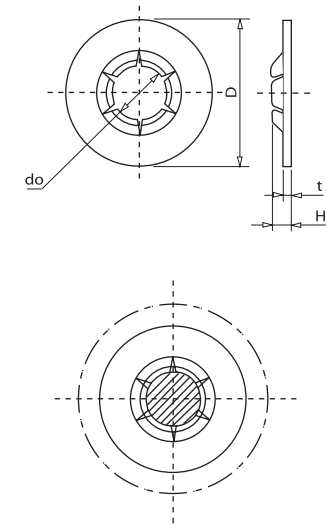


Self-Locking Rings (External) 軸用定位介子

Unit: mm

| Size-No. | | Ring dimension | | | | |
|----------|-----|----------------|------------|------|------|------|
| | | do | | D | H | t |
| | | Basic | Tol. | | | |
| SPN- | 1.2 | 1.1 | 0 -0.1 | 4.5 | 0.6 | 0.25 |
| | 1.5 | 1.4 | | 5.2 | 0.6 | 0.25 |
| | 2 | 1.9 | | 6 | 0.7 | 0.25 |
| | 2.4 | 2.3 | 0 -0.15 | 7 | 0.8 | 0.25 |
| | 2.6 | 2.5 | | 7 | 0.9 | 0.25 |
| | 3 | 2.9 | | 10 | 1.3 | 0.3 |
| | 4 | 3.9 | | 12 | 1.4 | 0.3 |
| | 5 | 4.9 | | 14 | 1.55 | 0.4 |
| | 6 | 5.9 | | 16 | 1.75 | 0.4 |
| | 8 | 7.9 | | 17.5 | 1.8 | 0.5 |
| | 10 | 9.9 | | 21 | 2.2 | 0.7 |
| | 12 | 11.9 | | 27 | 2.8 | 0.9 |

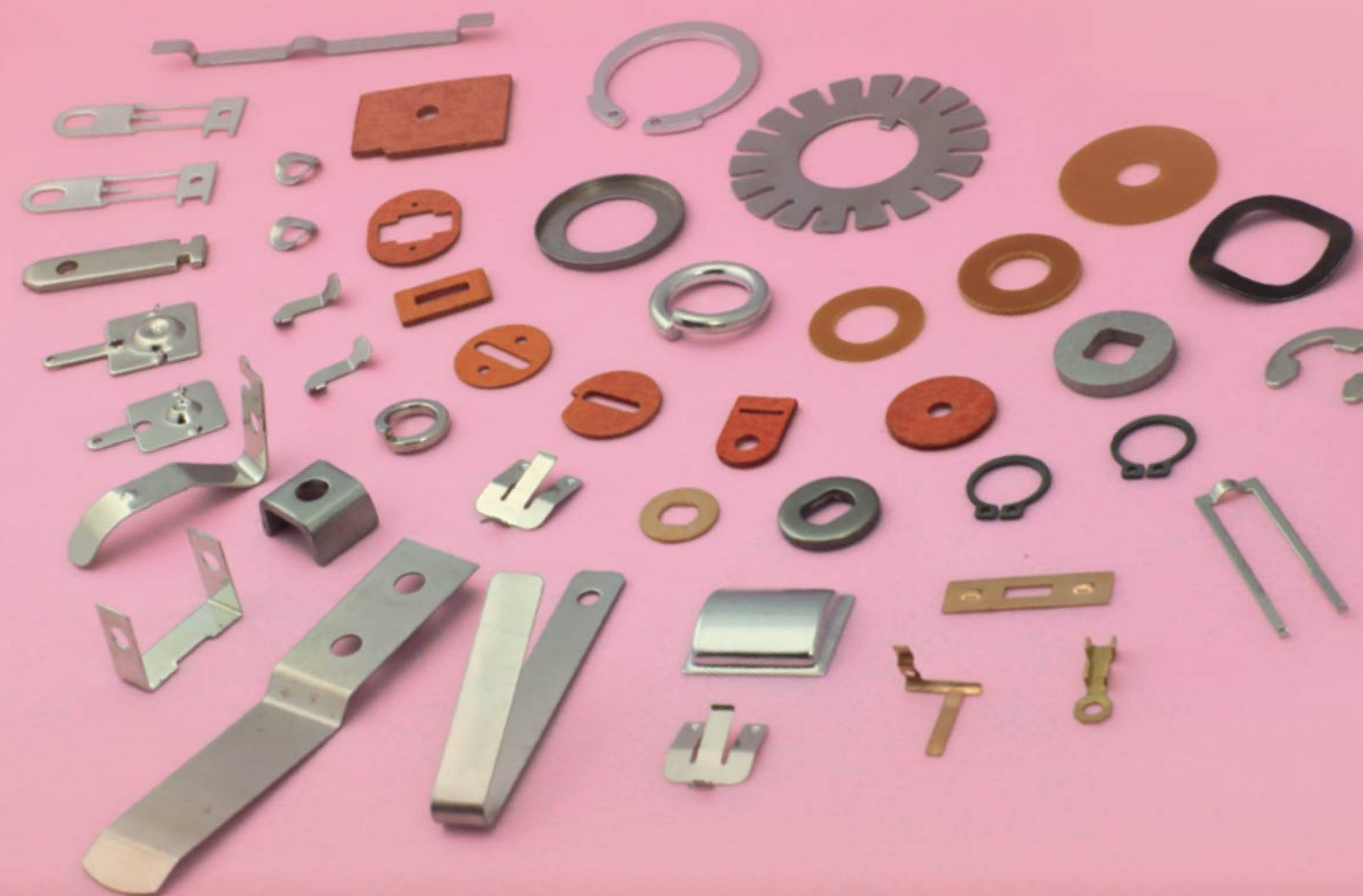
如有特別尺寸，可按貴公司圖紙生產。



五金電池片 Battery Metal Plate



沖壓五金片 Stamping Metal Plate



Battery Metal Plate

Stamping Metal Plate

Auto-Lathe Parts 自動車床零件



A Brief On Auto Lathe Products 自動車床產品簡介

Size Ranges: Dia. 1-42mm

Free-cutting Materials: Brass, Steel, Stainless Steel, Aluminum etc.

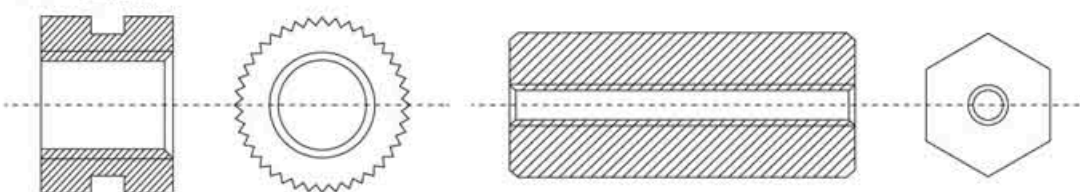
本公司可依客戶要求加工、鋁、鐵、鋼、不銹鋼及鋁等
Ø1-42mm各種材料的自動車床件。產品廣泛使用於電子、家電、傢俬、玩具、
五金、機床、塑膠、汽車等各行各業。質優價平。

<一> Round Bar 常規圓軸類零件

1. SHAFT 光軸類



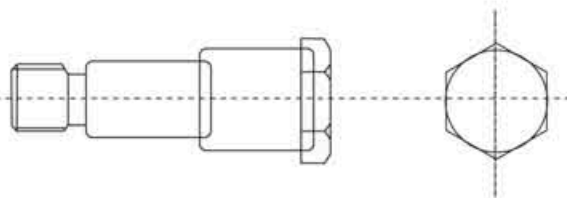
2. RIBS 直紋花類



3. KNURLS 浪花類



<二> Hexagon Bar 六角形類材料



本廠更備有日本“MIYANO”及“TSUGAMI”CNC電腦車機・MODEL型號為BNC-42C5、B018A-III及
BOSS 542/32。
更可為客戶生產到精密度高的產品

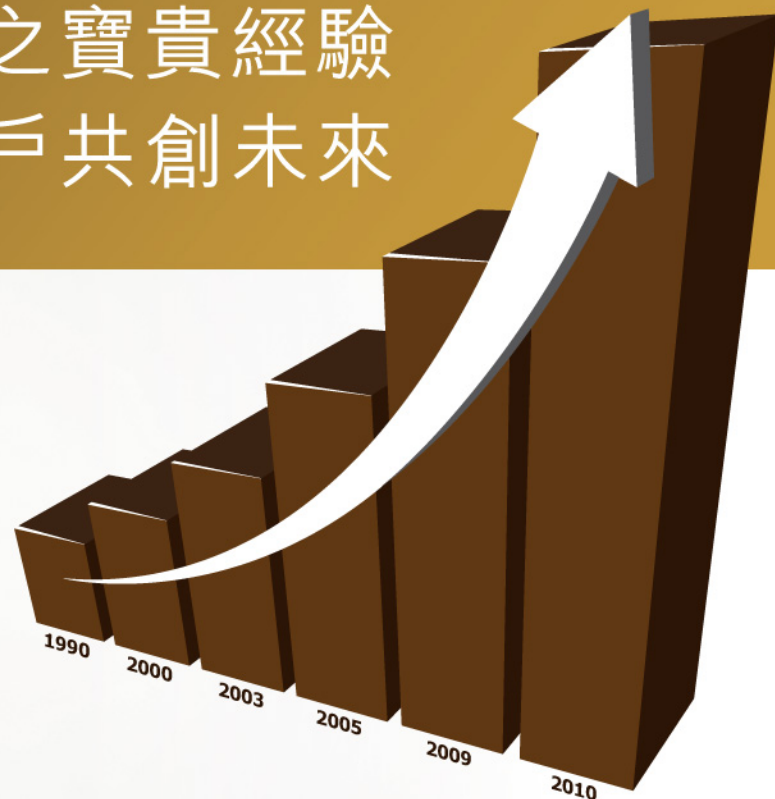
自動車床零件 Auto-Lathe Paths



Auto-Lathe Paths

服務與承諾

憑着過往廿載之寶貴經驗
盡心盡力與客戶共創未來



不斷求進，服務至上
努力不懈，客戶稱贊



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在當今激烈的市場競爭中，好的質量，好的服務是本公司開業至今的宗旨，金牌公司抱著積極、踏實、創新的態度面對各尊貴客戶、展開一系列系統化、環保化產品符合日新月異的市場要求，更配備專業人才以及先進生產設備和測試儀器，以“新設備、新技術、新理念、新突破”研制開發新產品。展望將來與您攜手合作，在激烈市場競爭開創一個新局面。