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GOLD MEDAL SCREW MFG., CO. LTD.

金牌螺絲製造有限公司

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Preface

Founded in 1990, Gold Medal Screw Manufacturing Co., Ltd. specialized in manufacturing screws, fasteners and all types of hardware parts. With continuous support from our loyal customers and our persistent improvement in providing multi-dimensional product range, Gold Medal is now an ISO Certificate BSI (ISO9001: 2000) certified company since 2003.

With our persistent strive for excellence to fulfill our customers demand, competitive pricing, high quality products, efficiency delivery and satisfactory services are our strength and core. We dedicate ourselves in building up mutual beneficial and cooperative relationship with all our customers.

Quality & performance target

Our straight and tight quality control system and total devote of effort in quality controls help us to attain best performance product. Our highest production efficiency and effectiveness uphold our superior market status.

序言

金牌螺絲製造有限公司自1990年成立以來，承蒙各客戶之鼎力支持與厚愛，在短短的十多年來已由專業生產五金螺絲發展到現在全面性生產各五金大小配件，並於2003年中獲得英國最嚴謹的ISO9001:2000(BSI)認證。

今後，我們經營方針是將不斷努力、不斷的追求卓越以及不斷生產更多不同類形的五金配件以迎合客戶在市場上的需求和服務廣大的客戶之長期擁戴。

質量方針

全面品管

嚴勵執行

嚴謹一剔

全員參與

品質出色

永不鬆懈

市場地位

無懈可擊

金牌出色

品質方針

低成本高效率

保持高質量

以達到客戶要求

1990

Founded in 1990, with its base in Hong Kong, Gold Medal Screw 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

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

2003

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

Major Products

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

1990年

金牌螺絲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。

2000年

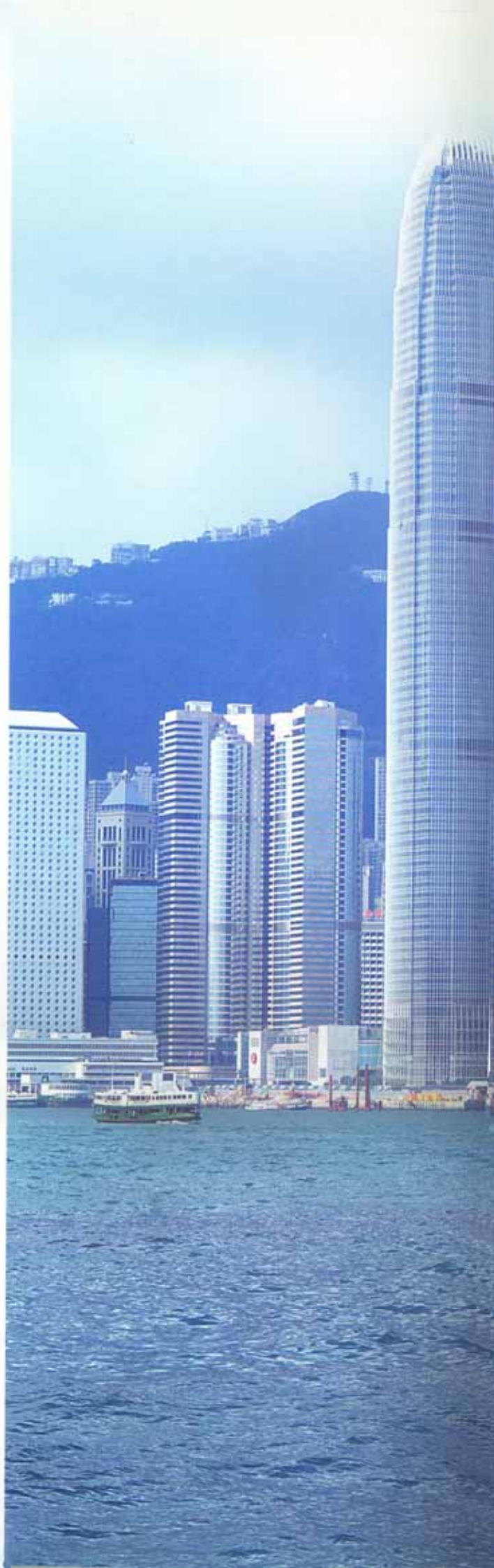
在國內投產拉線廠，同時加入了生產自動車床產品及各大小五金工業上用的配件。

2003年

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

主要產品

螺絲，特種防鬆螺絲，鋼釘，雞眼，電池片，介子及自動車床加工件等等。





CERTIFICATE OF REGISTRATION

Quality Management System

This is to certify that:
Dongguan Jinpal Hardware Products Co., Ltd.
Xiajie Industrial Village
Qishi Town
Dongguan
Guangdong Province 523510
P. R. China

Hold Certificate No: **FM 76365**

and operate a Quality Management System which complies with the requirements of **BS EN ISO 9001:2000** for the following scope:

The manufacture of screws.

For and on behalf of BSI:

John Britome.

Certification Manager

Originally registered: 03 Jul 2003

Latest issue: 03 Jul 2003

Page: 1 of 2



This certificate remains the property of BSI and shall be returned immediately upon request. The certificate does not expire.
To check it's validity telephone: +44 (0)20 8996 9001 or visit www.bsi-global.com/businessPartners
Further certifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organization. The British Standards Institution is incorporated by Royal Charter.
Group Headquarters: 389 Chiswick High Road, London W4 4AL, UK.



BSI MANAGEMENT SYSTEMS

Manufacturing Process of Screws

螺絲製造過程



feed in
線材

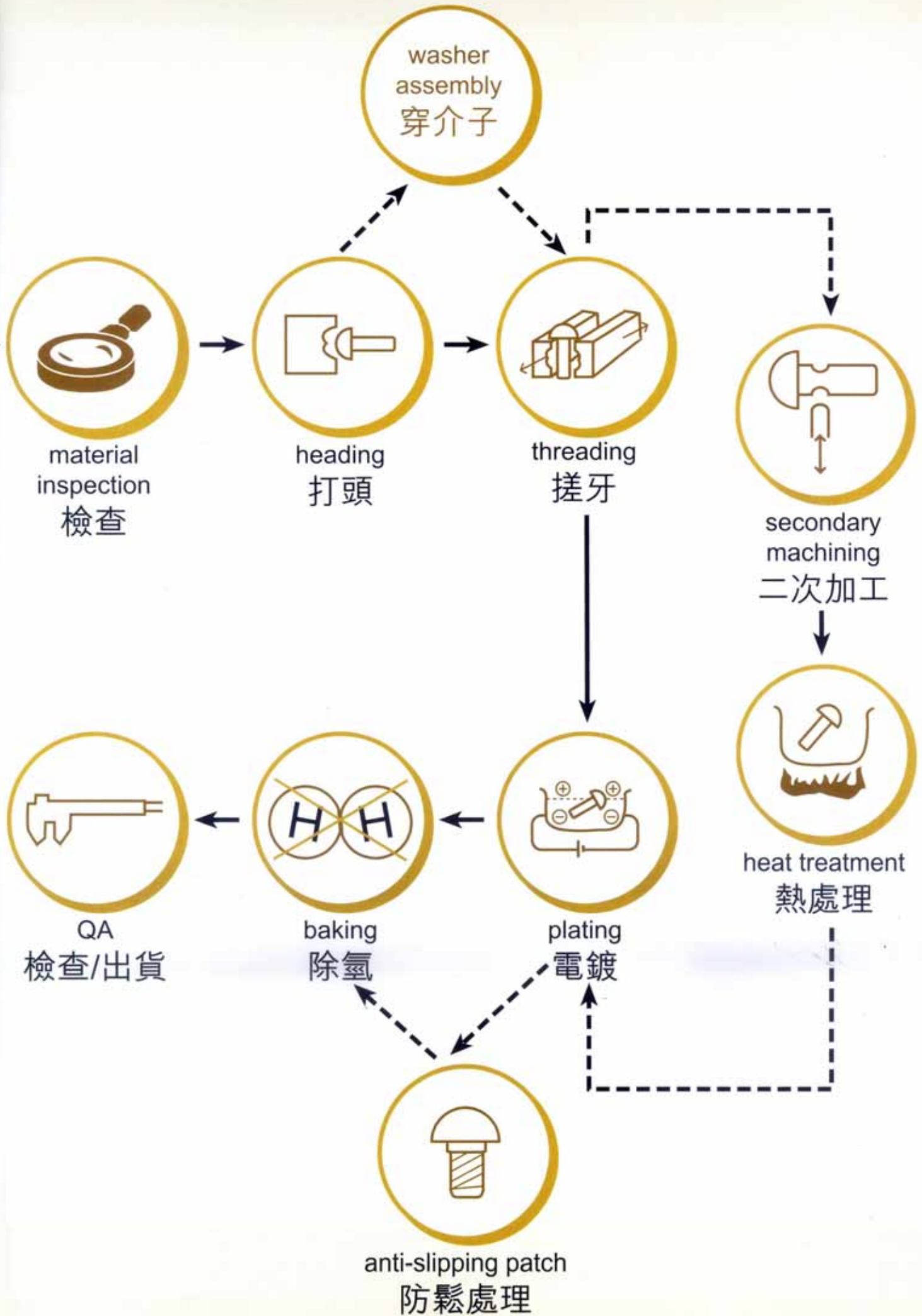


packaging
包裝



shipping
出貨





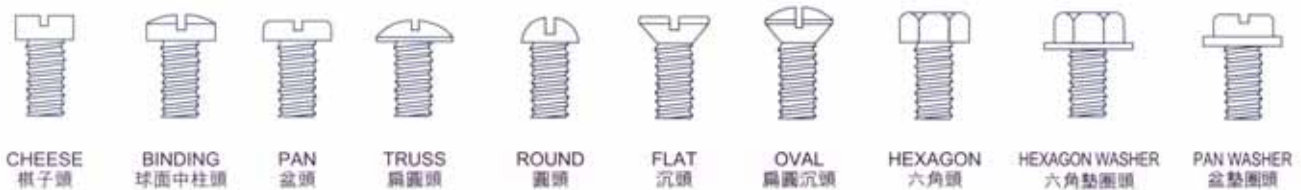
Product Introduction

產品介紹

1. 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



- 按螺紋螺旋線條數分為：A. 自攻螺絲的鋼牙、快牙(單絲、雙絲)、高低牙、三角牙
B. 機器螺絲的標準牙距螺紋
- 按螺絲釘材料：低、中碳鋼、合金鋼、銅、鋁、不銹鋼等

2. Surface Finishings 常見表面處理

- ZINC 鋅<Zn>
- NICKEL 鎳<Ni>
- BRASS 青銅

- BLACK OXIDE 氧化黑<'O'>
- CHROMATE 彩鋅<Cr>
- BLACK ZINC 鋅黑<BL-ZN>

Machine & Self Tapping Screws

機械及自攻螺絲



Machine & Self Ta

機械及自攻螺絲

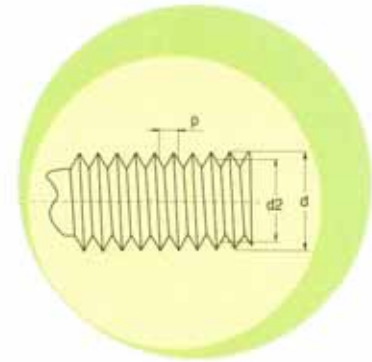
Machine & Self Tapping Screws

機械及自攻螺絲



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 (pitch 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

- 1.1 range: M1.7 to M12 Coarse machine screw nominal dia. & tolerance.
2. Thread Tolerance class 6g.
- 2.2 Inspection: pass 6g ring gauge during production.
- 2.3 Acceptance: pass 6h ring gauge after surface treatment.

一. ISO 標準公制粗牙螺絲螺紋

1. 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。
2. 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°)

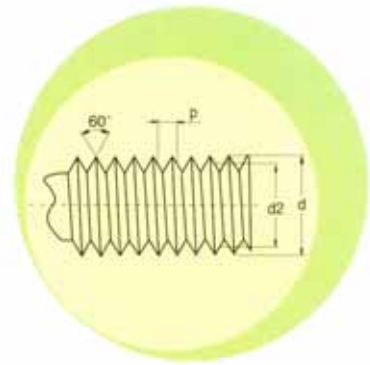
Nominal Size	Threads per inch	Major Diameter	
		(Max)	(Min)
1/16	60	1.560	1.470
3/32	48	2.361	2.155
1/8	40	3.155	3.045
5/32	32	3.945	3.795
3/16	24	4.742	4.592
1/4	20	6.330	6.160
5/16	18	7.910	7.720
3/8	16	9.500	9.310
7/16	14	11.082	10.892
1/2	12	12.670	12.460
9/16	12	14.258	14.047

2. BS: BSW COARSE SCREW THREADS

1. Range: BSW from 1/16" to 9/16"
2. Tolerance class: 2A

二. 英制粗牙螺絲螺紋

1. 尺寸範圍：BSW 標準中由 1/16" 至 9/16"
2. 公差等級：2A



ANSI Unified Coarse Screw (THREADS 60°)

美制粗牙螺紋規格及公差 (外螺紋60°)

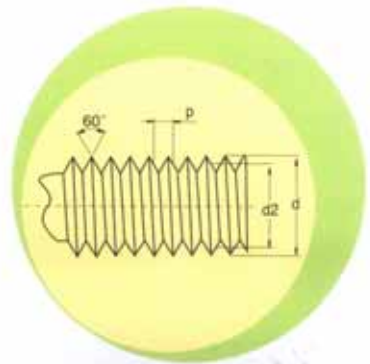
Nominal Size	Threads per inch	d (major diameter)		d2 (pitch diameter)	
		(Max)	(Min)	(Max)	(Min)
NO:1	64	1.838	1.743	1.582	1.532
NO:2	56	2.168	2.066	1.874	1.822
NO:3	48	2.496	2.383	2.153	2.096
NO:4	40	2.824	2.695	2.413	2.350
NO:5	40	3.154	3.026	2.743	2.678
NO:6	32	3.484	3.333	2.969	2.899
NO:8	32	4.142	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

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

三. 美制粗牙螺絲螺紋

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



ANSI Unified Coarse Screw (THREADS 60°)

美制細牙規格及公差 (外螺紋60°)

Nominal Size	Threads per inch	d (major diameter)		d2 (pitch 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

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

四. 美制細牙螺絲螺紋

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

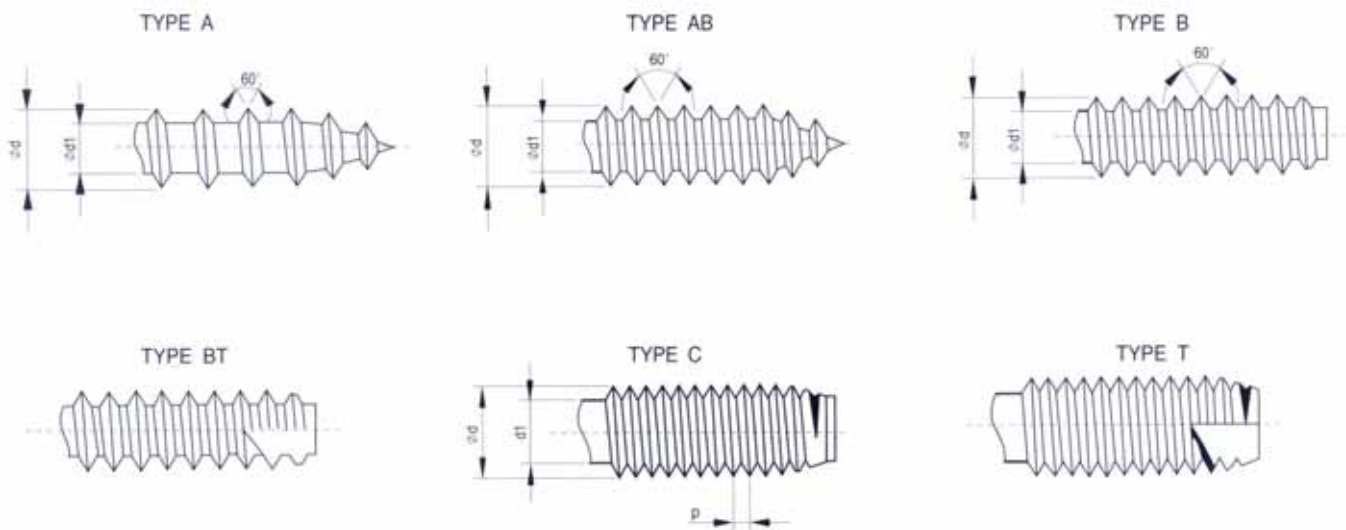
Self Tapping Screw Threads

自攻螺絲釘螺紋

一. JIS 標準螺紋

Size range: M1.4 to M8

尺寸範圍：M1.4 - M8



螺紋尺寸 TYPE A, AB, B, BT

Nominal designation of screw threads		1.4	1.6	1.7	2.0	2.3	2.6	3.0	3.5	4.0	4.5	5.0	6.0	8.0
d	Maximum	1.45	1.65	1.75	2.05	2.35	2.66	3.10	3.60	4.10	4.60	5.15	6.15	8.20
	Minimum	1.35	1.55	1.65	1.95	2.25	2.54	2.90	3.40	3.90	4.40	4.85	5.85	7.80
d1	Maximum	1.04	1.18	1.28	1.60	1.70	2.00	2.40	2.80	3.10	3.50	4.00	4.80	6.30
	Minimum	0.89	1.01	1.12	1.40	1.60	1.80	2.20	2.60	2.90	3.30	3.60	4.40	5.90
Threads AB														
per B		56	50	50	40	32	28	24	20	18	16	16	14	12
inch A									18	16	14	12	10	9

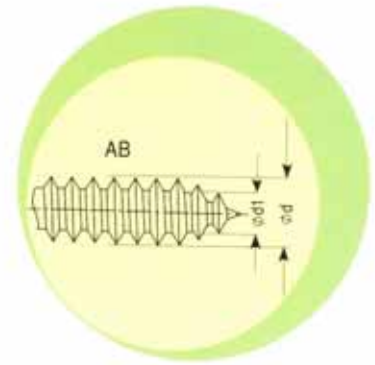
螺紋尺寸 TYPE C, T

Nominal designation of screw threads		2	2.5	3	(3.5)	4	(4.5)	5	6	8
d	Maximum	1.98	2.48	2.98	3.47	3.97	4.47	4.97	5.97	7.96
	Minimum	1.89	2.38	2.87	3.36	3.84	4.34	4.84	5.82	7.79
d1	Maximum	1.46	1.90	2.33	2.69	3.06	3.50	3.93	4.67	6.34
	Minimum	1.37	1.80	2.22	2.57	2.93	3.36	3.78	4.50	6.14
pitch		0.4	0.45	0.5	0.6	0.7	0.75	0.8	1.0	1.25

二. ANSI 標準螺絲

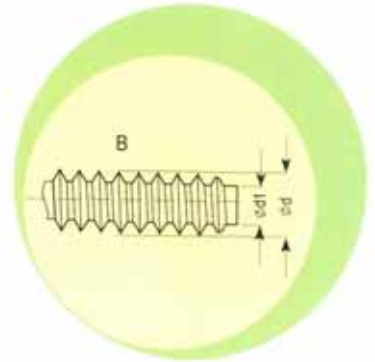
Size range: # 0-48 to 5/16" -12

尺寸範圍：外徑規格 # 0-48 到 5/16" -12



ANSI 自攻螺絲尺寸及公差

Nominal size or basicscrew diameter	Threads per inch	d		d1		
		Major Diameter		Minor Diameter		
		(Max)	(Min)	(Max)	(Min)	
#.0	1.52	48	1.52	1.37	0.91	0.84
#.1	1.85	42	1.90	1.75	1.24	1.17
#.2	2.18	32	2.23	2.08	1.62	1.52
#.3	2.52	28	2.56	2.41	1.90	1.80
#.4	2.84	24	2.90	2.74	2.18	2.08
#.5	3.18	20	3.30	3.12	2.39	2.29
#.6	3.51	20	3.53	3.35	2.64	2.51
#.7	3.84	19	3.91	3.73	2.92	2.77
#.8	4.17	18	4.22	4.04	3.10	2.95
#.10	4.83	16	4.80	4.62	3.58	3.43
#.12	5.49	14	5.46	5.28	4.16	3.99
1/4	6.35	14	6.25	6.02	4.88	4.70
5/16	7.94	12	8.00	7.77	6.20	5.99



三. Points of Self Tapping Screw 螺釘末端



TYPE A



TYPE AB



TYPE B



TYPE 25(BT)



TYPE BF



TYPE C



DRILL POINT



TYPE U



TYPE 23(T)



LEAD OR
PILOT POINT



TYPE F



TYPE 1(D)

Types of Head

螺絲釘頭型

一、JIS 標準頭型系列尺寸

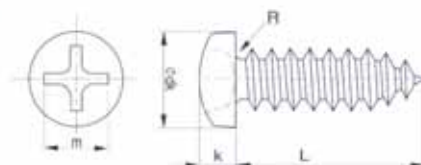
尺寸及公差

Unit:mm

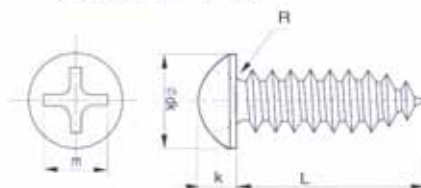
Nominal Size	PAN(P)			TRUSS (T)		
	Head Diameter ϕdk	Head Height k		Head Diameter ϕdk	Head Height k	
1.7	3.2	1.1				
2.0	3.5	1.3		4.5	1.2	
2.2	4.0	+0	± 0.1	5.0	+0	± 0.1
2.3	4.0	-0.4		5.2	-0.40	
2.5	4.5			5.7	1.5	
2.6	4.5			5.9	1.6	
3.0	5.5	+0	± 0.15	6.9	+0	± 0.15
3.5	6.0	-0.5		8.1	-0.5	
4.0	7.0			9.4	2.5	
4.5	8.0	+0	± 0.20	10.6	+0	± 0.20
5.0	9.0	-0.6		11.8	-0.60	
6.0	10.5	+0		14.0	+0	
8.0	14.0	-0.8		17.8	-0.8	

1. PAN HEAD MACHINE OR TAPPING SCREW 簡稱 "P" 頭

注：頭部槽型可按客戶要求生產



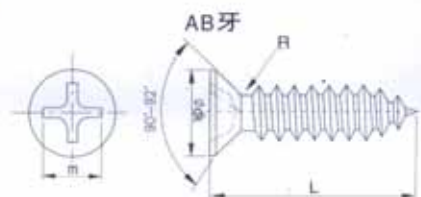
2. TRUSS HEAD MACHINE OR TAPPING SCREW 簡稱 "T" 頭



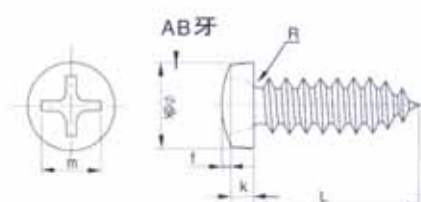
Unit:mm

Nominal Size	FLAT HEAD (K.F.)			BINDING (B)		
	Head Diameter ϕdk	Head Angle		Head Diameter ϕdk	Head Height k+f	
1.7	3.4			-	-	
2.0	4.0			4.3	1.2	
2.2	4.4	+0	$90^\circ \sim 92^\circ$	4.7	+0	± 0.15
2.3	4.6	-0.40		4.9	-0.40	
2.5	5.0			5.3	1.5	
2.6	5.2			5.5	1.6	
3.0	6.0			6.3	1.9	
3.5	7.0	+0	± 0.20	7.3	+0	± 0.20
4.0	8.0	-0.5		8.3	-0.5	
4.5	9.0	+0		9.3	+0	
5.0	10.0	-0.60		10.3	-0.60	
6.0	12.0	+0	± 0.20	12.4	+0	± 0.20
8.0	16.0	-0.7		16.4	-0.7	
		+0		16.4	+0	
		-0.8		16.4	-0.8	± 0.30

3. FLAT HEAD MACHINE OR TAPPING SCREW 簡稱 "F" 頭 又稱 "K" 頭



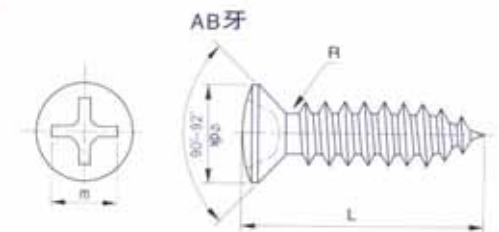
4. BINDING HEAD MACHINE OR TAPPING SCREW 簡稱 "B" 頭



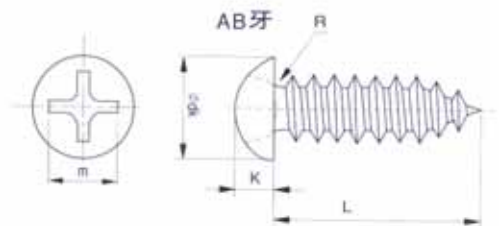
Unit:mm

Nominal Size	Type Of Head		OVAL HEAD (O)		ROUND HEAD (R)		
	Head Diameter $\varnothing dk$	Head Angle	Head Diameter $\varnothing dk$	Head Height k	Head Diameter $\varnothing dk$	Head Height k	
1.7	3.4		3.2	1.2			
2.0	4.0		3.5	1.3			
2.2	4.4	+0	4.0	1.5	+0	1.5	±0.1
2.3	4.6	-0.40	4.0	1.5	-0.40	1.5	
2.5	5.0		4.5	1.7		1.7	
2.6	5.2		4.5	1.7		1.7	
3.0	6.0		5.5	2.0		2.0	±0.15
3.5	7.0	+0 -0.5	6.0	2.3	+0 -0.5	2.3	
4.0	8.0		7.0	2.6		2.6	±0.2
4.5	9.0	+0 -0.60	8.0	3.0	+0 -0.60	3.0	
5.0	10.0		9.0	3.4		3.4	±0.2
6.0	12.0	+0 -0.7	10.5	4.0	+0 -0.7	4.0	
8.0	16.0	+0 -0.8	14.0	5.4	+0 -0.8	5.4	

5. OVAL HEAD MACHINE OR TAPPING SCREW 簡稱 "O" 頭



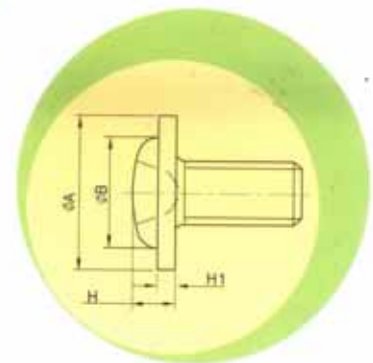
6. ROUND HEAD MACHINE OR TAPPING SCREW 簡稱 "R" 頭



Unit:mm

Nominal Size	Head Diameter $\varnothing B$		Head Height H		Washer Diameter $\varnothing A$		Washer Thickness H1	
	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.
1.6	3.2	-0.40	1.1	±0.1	4	-0.3	0.3	±0.05
2	3.5	-0.40	1.3	±0.1	5	-0.3	0.3	±0.05
2.5	4.1	-0.40	1.7	±0.1	6	-0.3	0.5	±0.05
3	5.5	-0.50	2.0	±0.15	7	-0.36	0.5	±0.05
3.5	6.0	-0.50	2.3	±0.15	8	-0.36	0.5	±0.05
4	7.0	-0.50	2.6	±0.15	9	-0.36	0.8	±0.10
5	9.0	-0.60	3.3	±0.15	10	-0.36	1.0	±0.10
6	10.5	-0.70	3.9	±0.20	12	-0.43	1.0	±0.10
8	14	-0.80	5.2	±0.20	16	-0.43	1.0	±0.20

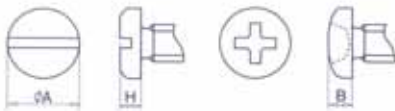
7. PAN WASHER HEAD MACHINE OR TAPPING SCREW 簡稱 "PW" 頭



注：墊圈直徑A與厚度H，可由客戶根據需要進行調整，頭部針型可由客戶需要生產。

二、ANSI 標準頭型系列尺寸

ANSI PAN HEAD



ANSI BINDING HEAD



ANSI TRUSS HEAD



Nominal Size	Type Of Head	TYPE OF HEAD AND DIMENSIONS													
		PAN HEAD						BINDING HEAD				TRUSS HEAD			
		Head Dia. (A)		Slotted Head (H)		Crossed Head(B)		Head Dia. (A)		Head Height (H)		Head Dia. (A)		Head Height (H)	
		Max	Min	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	0.94	0.74
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	1.14	0.94
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	1.35	1.12
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	1.55	1.30
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	1.75	1.50
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	1.98	1.69
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	2.18	1.88
7	3.84	7.52	7.14	2.26	2.01	2.69	2.44	-	-	-	-	8.94	8.46	2.39	2.06
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	2.59	2.24
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	3.00	2.62
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	3.40	3.00
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	3.81	3.38

ANSI ROUND HEAD



ANSI FLAT HEAD



ANSI OVAL HEAD



Nominal Size	Type Of Head	TYPE OF HE AND DIMENSIONS											
		ROUND HEAD				FLAT HEAD				OVAL HEAD			
		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			3.02	2.51		
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	80° ~ 82°		7.09	6.20	80° ~ 82°	
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		

JIS Tolerance on Length

日制長度公差標準

TYPE OF THREAD	LENGTH	TOLERANCE
TYPE B	Under 16MM	0
		-0.8
TYPE C	16~36MM	0
		-1.2
		0
TYPE A	Under 25MM	±0.8
	Above 25MM	±1.2

2. Machine 機牙

Length (L)	Diameter	Diameter		
		M2.6 ≥ ∅	M2.6 < ∅ ≤ M4.5	Above M 4.5
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

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
C1018	HV450	-	HV200	HV400
	HRC45	-	HRB92	HRC41

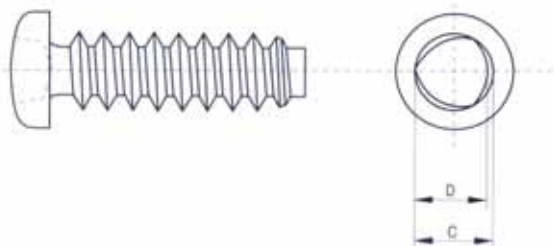
2. Torsional Strength 扭力要求

Type of Thread	Da	∅2.0	∅2.6	∅3.0	∅3.5	∅4.0	∅4.5	∅5.0	∅6.0
A Type	MN Torsion (kgf.cm)	-	-	14	23	36	49	66	120
AB,B Type		4.3	9	16	26	36	53	72	130
C Type		4.0	9.3	17	26	36	57	81	135

Tap Tite Screws

三角自攻螺絲《TT》

B TYPE

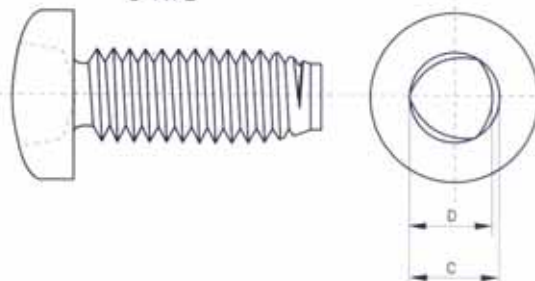


特點：螺絲牙距與普通自攻螺絲相同，適用於金屬板及塑料。

Unit:mm

Size	T.P.I.	Dia.			
		C mm		D mm	
		Max	Min	Max	Min
2	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	24	3.05	2.95	2.95	2.85
3.5	20	3.55	3.45	3.46	3.34
4	18	4.05	3.95	3.91	3.81
5	16	5.06	4.94	4.90	4.78
6	14	6.08	5.92	5.88	5.72
8	12	8.10	7.90	7.85	7.65

C TYPE

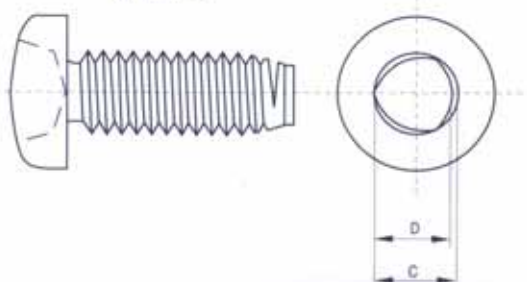


特點：與機牙及TYPE C之鋼牙相同，並且可配合螺帽。

Unit:mm

Size	Pitch	Dia.			
		C mm		D mm	
		Max	Min	Max	Min
2	0.4	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	0.5	2.98	2.87	2.88	2.77
3.5	0.6	3.47	3.36	3.35	3.24
4	0.7	3.97	3.84	3.83	3.70
5	0.8	4.97	4.84	4.81	4.68
6	1.0	5.97	5.82	5.77	5.62
8	1.25	7.96	7.79	7.74	7.54

S TYPE

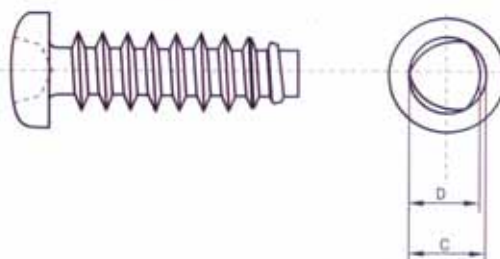


特點：螺絲牙距與機牙相同，適用於金屬板。

Unit:mm

Size	Pitch	Dia.			
		C mm		D mm	
		Max	Min	Max	Min
2	0.4	2.04	1.96	1.96	1.88
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	0.5	3.05	2.97	2.95	2.87
3.5	0.6	3.55	3.48	3.44	3.36
4	0.7	4.07	3.99	3.93	3.85
5	0.8	5.08	5.00	4.92	4.84
6	1.0	6.10	6.00	5.90	5.80
8	1.25	8.13	8.03	7.88	7.78

P TYPE



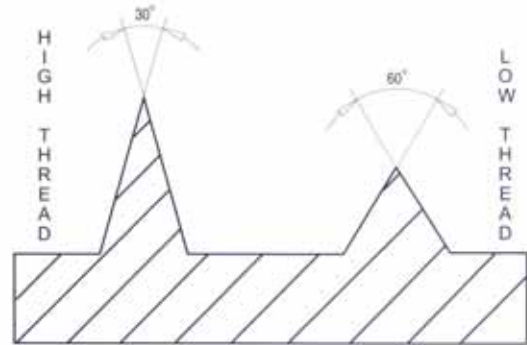
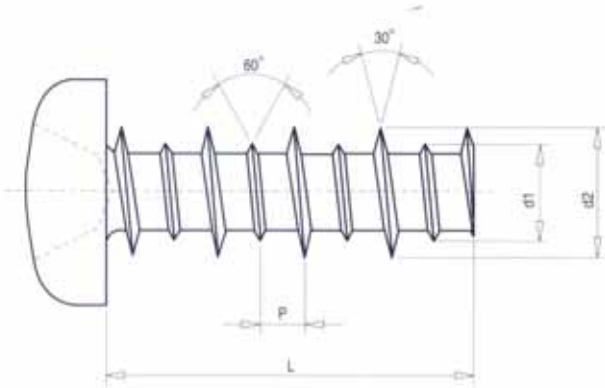
特點：只適用於塑料，有單絲、雙絲螺旋線螺紋之分。

Unit:mm

Size	Pitch	Dia.			
		C mm		D mm	
		Max	Min	Max	Min
2	0.794 (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	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	1.588 (15)	4.16	4.04	4.02	3.90
5	1.814 (14)	5.19	5.05	5.03	4.89
6	2.117 (12)	6.24	6.06	6.04	5.86
8	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》



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

Torsional Requirements

Screw Size		Min.Blind Hole Torque In-Lbs	Screw Size		Min.Blind Hole Torque In-Lbs
Inch	Metric		Inch	Metric	
2-32	2.2x0.79	3	12-16	5.5x1.59	52
3-28	2.6x0.9	5	13-16	5.8x1.59	65
4-24	2.9x1.06	7	1/4-15	6.3x1.69	110
5-20	3.1x1.27	11	9/32-16	7.2x1.59	152
6-19	3.5x1.34	13	19/64-16	7.5x1.59	170
7-19	4.0x1.34	21	5/16-14	8.0x1.81	185
8-18	4.2x1.41	25	21/64-18	8.3x1.41	306
9-18	4.7x1.41	36	11/32-14	9.0x1.81	306
10-16	4.8x1.59	36	3/8-13	9.5x1.95	370
11-16	5.3x1.59	43	27/64-13	10.6x1.97	560

Recommended Minimum Lengths

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

ANSI Tolerance on Length

美制長度公差標準

1. Self-tapping 自攻螺絲釘

TYPE OF THREAD	LENGTH	TOLERANCE
TYPE A, AB	$L \leq 1"$	$\pm 0.03"$
	$L > 1"$	$\pm 0.05"$
TYPE B	$L \leq 3/4"$	$-0.03"$
	$3/4 < L \leq 1-1/2"$	$-0.05"$
	$L > 1-1/2"$	$-0.06"$

2. Machine 機牙

NOMINAL DIA.	UNC #0 ~ #12	UNC 1/4" ~ 3/4"
LENGTH (L)	TOLERANCE	
$L \leq 1/2"$	$-0.02"$	$-0.03"$
$1/2" < L \leq 1"$	$-0.03"$	$-0.03"$
$1" < L \leq 2"$	$-0.06"$	$-0.06"$
$2" < L$	$-0.09"$	$-0.09"$

Mechanical Properties of Self-tapping Screw after Case Hardening

自攻螺絲滲炭後機械性能

1. Hardness 硬度標準

MATERIAL	SURFACE HARDNESS		CORE HARDNESS	
	Min	Max	Min	Max
C1018	HRC 45	-	HRC 28	HRC 38

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

Hexagon Head & Hexagon Socket Screws

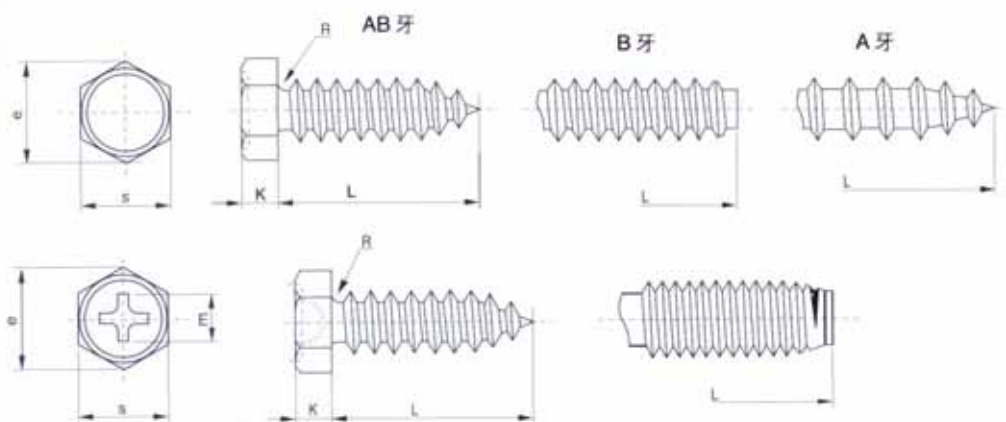
外六角頭及內六角頭螺絲



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

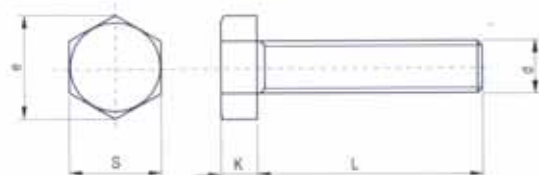
1. 尺寸範圍：M3-M8
2. 頭型、牙型

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

Hexagon Head Screws

六角頭螺絲釘

Grades A and B



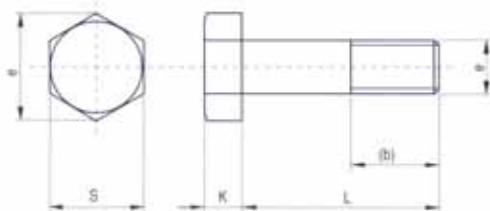
Unit: mm

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

Grades A and B

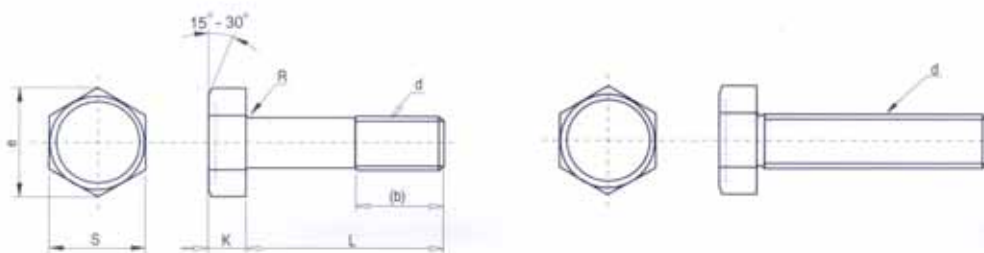


Unit: mm

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
	125 < L ≤ 200	-	22	24	28	32	36
	L > 200	-	-	-	-	45	49
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
	B	-	8.63	10.89	14.20	18.72	20.88
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

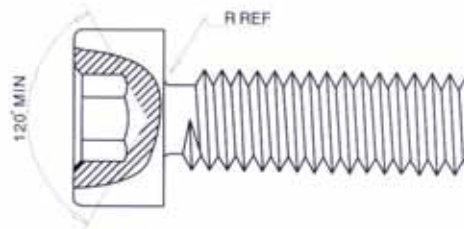
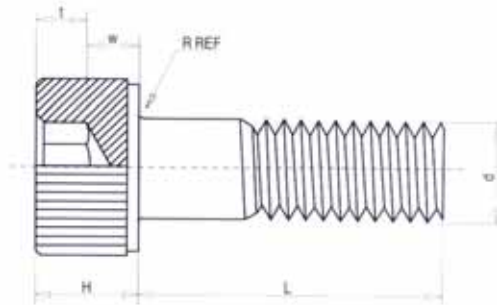
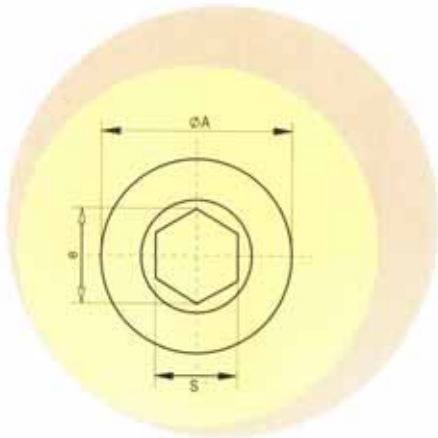
Nominal Size	M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10	M12
S	Size	3.2	4	5	5.5	6	7	8	10	13	16
	Tolerance	+0	+0	+0	+0	+0	+0	+0	+0	+0	+0
E	Min	-0.18	-0.18	-0.18	-0.3	-0.3	-0.36	-0.36	-0.36	-0.43	-0.43
K	Size	3.41	4.32	5.45	5.88	6.58	7.50	8.63	10.89	14.20	17.59
	Tolerance	1.1	1.4	1.7	2	2.4	2.8	3.5	4	5.3	6.4
		±0.12	±0.12	±0.12	±0.2	±0.2	±0.2	±0.24	±0.24	±0.24	±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)
-0

Hexagon Socket Head Cap Screws

內六角杯頭螺釘



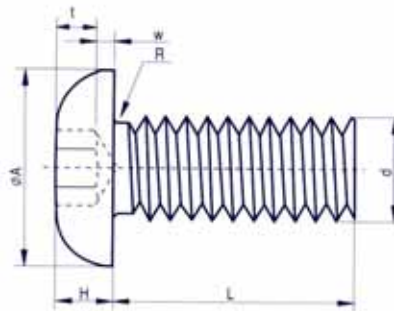
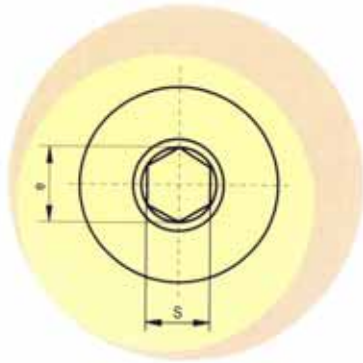
Dimensions of Metric Socket Head Cap Screws

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



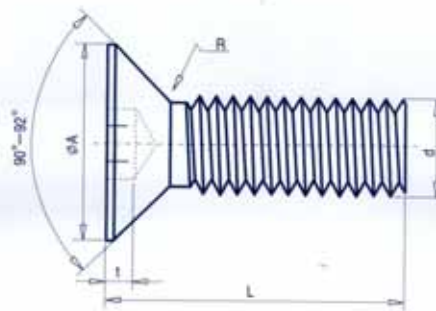
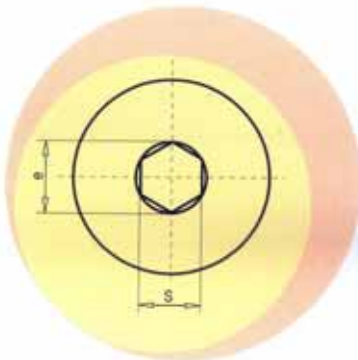
Dimensions of Metric Hexagon Socket Head Screws

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
M3 x 0.5	5.7	5.4	1.65	1.4	2	2.045	2.02	2.3	1.04	0.2
M4 x 0.7	7.6	7.24	2.2	1.95	2.5	2.56	2.52	2.87	1.3	0.3
M5 x 0.8	9.5	9.14	2.75	2.5	3	3.08	3.02	3.44	1.56	0.38
M6 x 1	10.5	10.07	3.3	3	4	4.10	4.02	4.58	2.08	0.74
M8 x 1.25	14	13.57	4.4	4.1	5	5.10	5.02	5.72	2.6	1.05
M10 x 1.5	17.5	17.07	5.5	5.2	6	6.10	6.02	6.86	3.12	1.45
M12 x 1.75	21	20.48	6.6	6.24	8	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	Size	Min	Max	Min
M3x0.5	6.0	5.7	2.0	2.10	2.02	2.3	1.2	0.95
M4x0.7	8.0	7.64	2.5	2.60	2.52	2.87	1.8	1.55
M5x0.8	10.0	9.64	3.0	3.10	3.02	3.44	2.3	2.05
M6x1	12.0	11.57	4.0	4.12	4.02	4.58	2.5	2.25
M8x1.25	16.0	15.57	5.0	5.14	5.02	5.72	3.5	3.2
M10x1.5	20.0	19.48	6.0	6.14	6.02	6.86	4.4	4.1
M12x1.75	24.0	23.48	8.0	8.18	8.03	9.15	4.6	4.3

Complete range of products

meet every specific need





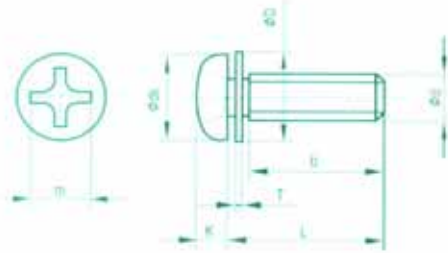
完備產品系列
滿足每個獨特要求

Sems Screws

帶墊圈螺絲



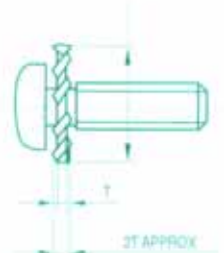
Screw with square washer
帶四方墊圈 (SCSEMSQ)



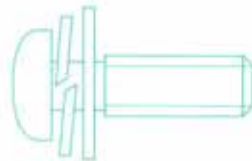
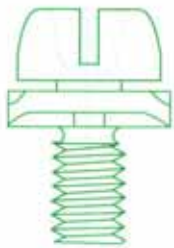
(1) Screw with plain washer
帶平口墊圈 (SCSEMSPL)



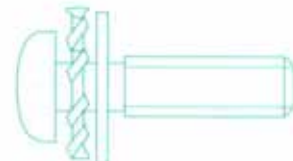
(2) Screw with spring lock washer
帶彈簧墊圈 (SCSEMSP)



(3) Screw with tooth lock washer
帶齒形墊圈 (SCSEMET)



(4) Screw with spring lock washer and plain washer
帶平口墊圈和彈簧墊圈 (SCSEMSPLL)



(5) Screw with toothed lock washer and plain washer
帶平口墊圈和齒形墊圈 (SCSEMETPL)

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	+0	+0	+0	+0	+0	+0
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	5+0	6+0	7+0	8+0	10+0	11.5+0	15.5+0
		T	-0.3	-0.3	-0.3	-0.35	-0.35	-0.35	-0.4	-0.4
	polished round	D	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	1.6±0.15
		T	5+0	6.5+0	7+0	9+0	9+0	10+0	12.5+0	17+0
spring washer	D (Max)	-0.3	-0.35	-0.35	-0.35	-0.35	-0.35	-0.4	-0.4	
	T (Min)	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	1.6±0.15	
Tooth Lock washer	D	4	4.8	5.5	6.2	7	8.5	11.5	14.5	
	T	0.5	0.6	0.7	0.8	1	1.3	1.5	2	
	D	-	-	6.5+0	7.5+0	8.5+0	10+0	11+0	15+0	
	T	-	-	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	
Number of tooth	D	-	-	0.45±0.04	0.45±0.04	0.45±0.04	0.6±0.05	0.6±0.05	0.8±0.05	
	T	-	-	8	8	9	10	12	12	

Nuts

各類螺母



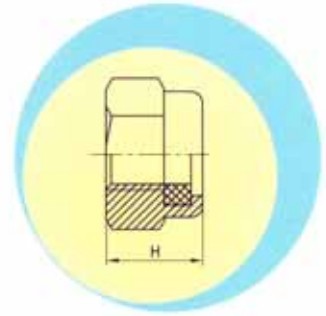
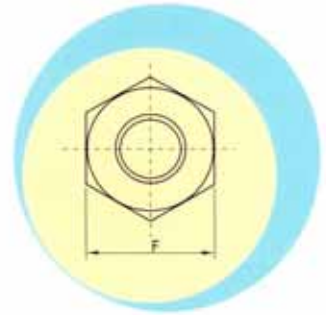
Nuts 各類螺母

Hexagon Nylon Insert Lock Nuts 嵌尼龍六角螺母 《NUHXNY》

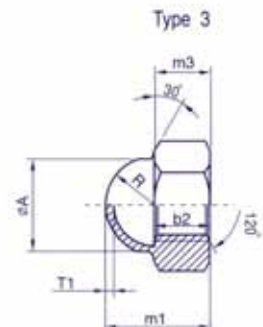
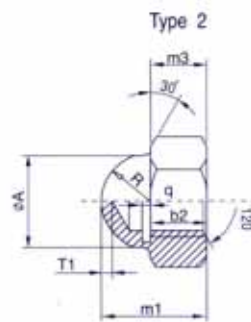
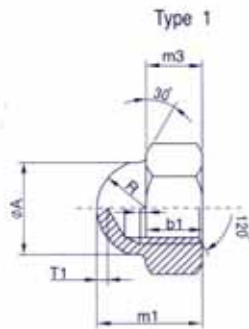
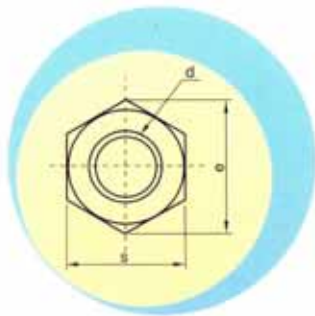
Dimensions and Tolerances 尺寸及公差

Unit: mm

Thread Size	Pitch	Across Flats (F)		Thickness (H)	
		Size	Tolerance	Size	Tolerance
M3	P-0.5	5.5		4	
M4	P-0.7	7	+0	5	+0
M5	P-0.8	8	-0.2	5	-0.75
M6	P-1	10		6	
M7	P-1	11		7.5	+0
M8	P-1.25	13	+0	8	-0.90
M10	P-1.5	17	-0.25	10	+0
M12	P-1.75	19		12	-1.1



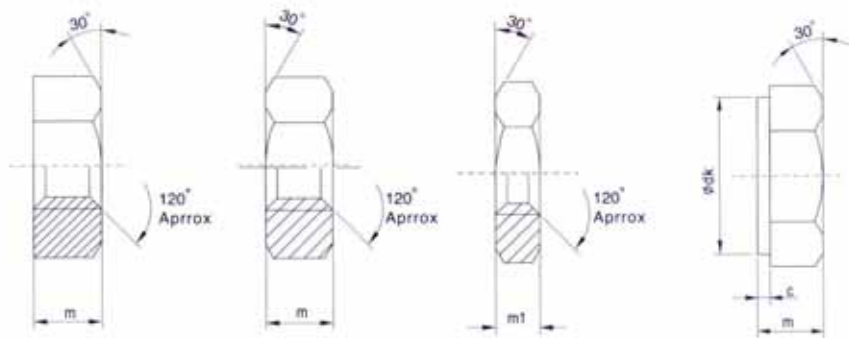
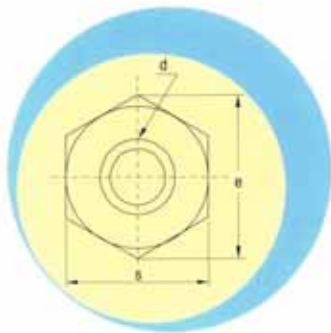
Domed Cap Nuts 圓頂螺母 《NUHXCAP》



Type of nut	Designation of screw thread (d)		m1		m2		m3		S		b1	b2	$\varnothing A$
	Coarse thread	Fine thread	Basic dimension	Tolerances	Basic dimension	Tolerances	Basic dimension	Tolerances	Basic dimension	Tolerances	Min	Basic dimension	Min
Domed cap nut	M4	-	9.5		6.2		3.2	0	7	0	4	3.2	5.6
	M5	-	11	± 0.25	7.5	± 0.25	4	-0.3	8	-0.2	5	4	6.6
	M6	-	12		9.5		5		10		6	5	8.5
	M8	M8 \times 1	15		12.5		6.5	0	13	0	8	6.5	11.5
	M10	M10 \times 1.25	18		15.5		8	0	17	-0.25	10	8	14.5
	M12	M12 \times 1.25	22	± 0.3	18.5	± 0.3	10	-0.36	19		12	10	16.5
	(M14)	(M14 \times 1.5)	24		21.0		11		22	0	14	11	19.5
	M16	M16 \times 1.5	28		24		13		24	-0.35	16	13	21.5
	(M18)	(M18 \times 1.5)	31		27		15	0	27		18	15	23.5
	M20	M20 \times 1.5	34	± 0.4	29.0	± 0.4	16	-0.43	30		20	16	26.5
	(M22)	(M22 \times 1.5)	38		32.5		18		32		22	18	28.5
	M24	M24 \times 2	41		35.5		19		36	0	24	19	32.5
	(M27)	(M27 \times 2)	46		41		22	0	41	0	27	22	37.5
	M30	M30 \times 2	50		45		24	-0.52	46	-0.4	30	24	41.5
	(M33)	(M33 \times 2)	54	± 0.5	49	± 0.5	26		50		33	26	45.5
	M36	M36 \times 3	59		54.5		29		55	0	36	29	50.5
	(M39)	(M39 \times 3)	64		59		31	-0.62	60	-0.45	39	31	55.5

Hexagon Nuts

六角螺母 《NUHX》



Hexagon nuts - finished (常見成品尺寸)

Unit: mm

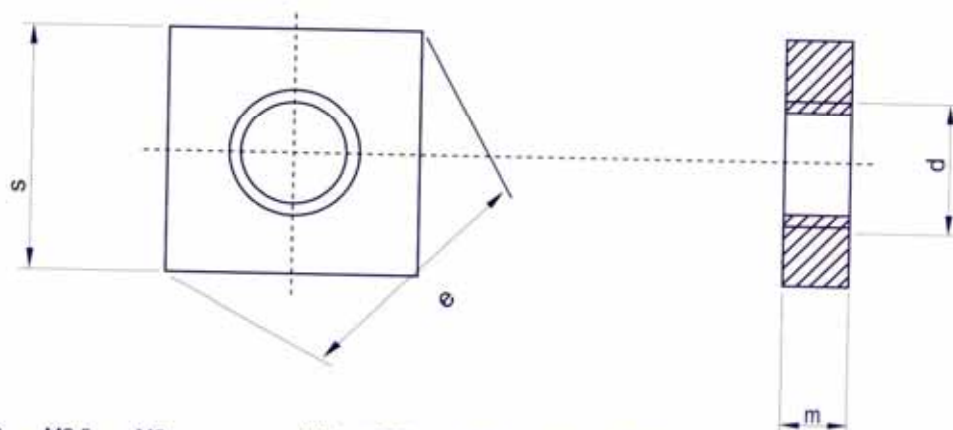
Nominal designation of screw thread (d)		m		m1		s		e
Coarse	Fine	Basic dimension	Permissible deviation	Basic dimension	Permissible deviation	Basic dimension	Permissible deviation	Approx.
M2	-	1.6		1.2		4		4.6
[M2.2]	-	1.8	0	1.4		4.5		5.2
M2.5	-	2	-0.25	1.6	0	5		5.8
M3	-	2.4		1.8	-0.25	5.5		6.4
[M3.5]	-	2.8		2		6	0	6.9
M4	-	3.2		2.4		7	-0.2	8.1
[M4.5]	-	3.6	0	2.8		8		9.2
M5	-	4	-0.30	3.2		8		9.2
M6	-	5		3.6		10		11.5
[M7]	-	5.5		4.2	0	11		12.7
M8	M8x1	6.5	0	5	-0.30	13	0	15
M10	M10x1.25	8	-0.36	6		17	-0.25	19.6
M12	M12x1.25	10		7	0	19	-0.35	21.9

Hexagon nuts - regular (正規尺寸)

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.
M6	-	5		3.6		10	0	11.5
(M7)	-	5.5	±0.6	4.2		11	-0.6	12.7
M8	M8 x 1	6.5		5	±0.6	13	0	15
M10	M10 x 1.25	8	±0.8	6		17	-0.7	19.6
M12	M12 x 1.25	10		7	±0.8	19	0	21.9

Square Nuts

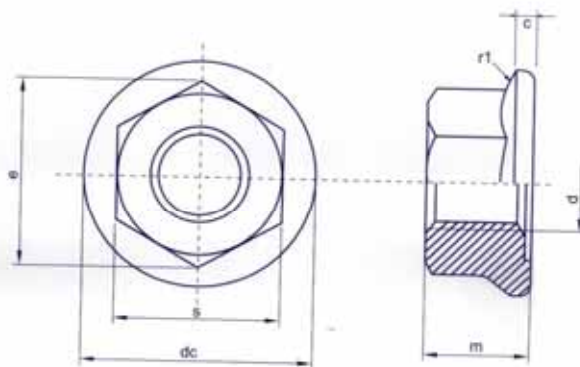
四方螺母 《NUSQ》



Coarse screw threads	Column I	M1.6	M2	M2.5	M3	-	M4	M5	M6	M8	M10
	Column II	-	-	-	-	M3.5	-	-	-	-	-
Coarse pitch	P	0.35	0.4	0.45	0.5	0.6	0.7	0.8	1	1.25	1.5
e	Min.	3.28	4.18	5.31	5.83	6.44	7.50	8.63	10.89	14.20	17.59
	Max.	1	1.2	1.6	1.8	2	2.2	2.7	3.2	4	5
m	Min.	0.6	0.8	1.2	1.4	1.6	1.8	2.3	2.72	3.52	4.52
	Max.	3.2	4	5	5.5	6	7	8	10	13	16
s	Min.	2.9	3.7	4.7	5.2	5.7	6.64	7.64	9.64	12.57	15.57
	Max.										

Hexagon Nuts With Flange

法蘭螺母 《NUHXFL》



Designation of screw thread			s	e	dc	dw		m	M1	c	r1
Coarse thread	Fine thread	Basic dimension	Tolerance	Min.	Max.	Min.	Basic dimension	Tolerance	Min.	Min.	Max.
M4	-	7		7.74	10.5	7.5	4.2		2.4	0.6	0.6
M5	-	8	0 -0.2	8.87	12	9	5	0 -0.75	3	0.7	0.7
M6	-	10		11.05	14	11	6		3.6	0.8	0.8
M8	M8 x 1	12		13.25	17.5	14.5	8	0	4.8	1.0	1.1
M10	M10 x 1.25	14	0 -0.25	15.51	21	18	10	-0.90	6	1.2	1.4
M12	M12 x 1.25	17		18.90	25	22	11.5	0 -1.1	7.2	1.4	1.6

Shafts

五金軸



Shafts 五金軸



Thread Rolling Shaft 滾花軸

Thread Rolling Shaft 滾花軸蕊

Type 1



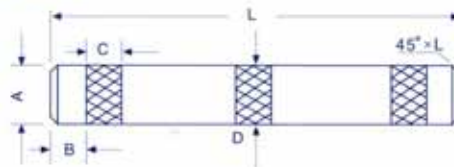
材料

鐵

銅

不銹鋼

Type 2



花款

單花

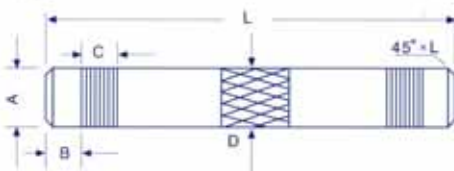
雙花

三花

四花

打翼花

Type 3



Sharp Shaft 磨尖軸



線徑

0.8 - 10mm

長度

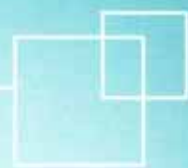
4 - 150mm

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

小五金零件

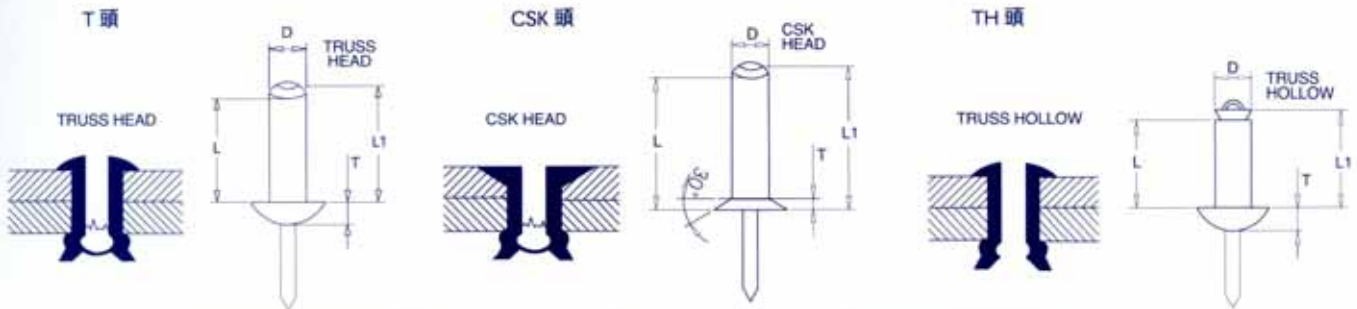


Cold Head Rivets,
Pop Rivets & Eyelets

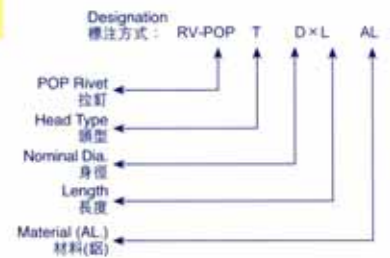
小五金零件
Cold Head Rivets,
Pop Rivets & Eyelets
小五金零件



POP Rivets 拉釘 《RV-POP》



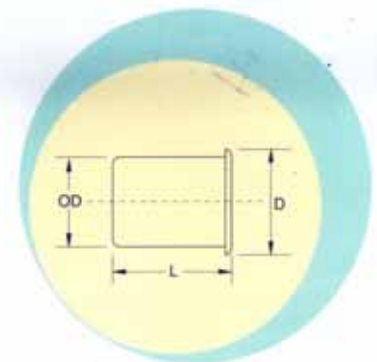
Rivet Diameter (D)	Grip Range (in)	Grip Range (mm)	Typical Shell Length (L)mm	Typical Rivet Clearance (L1)mm
3/32" 2.4mm	1/16-1/8	1.6-3.2	5.5	7.5
	1/8-3/16	3.2-4.8	7.0	9.0
	Up to 1/16	Up to 1.6	4.7	6.8
1/8" 3.2mm	1/16-1/8	1.6-3.2	6.3	8.4
	1/8-3/16	3.2-4.8	7.9	10.0
	3/16-1/4	4.8-6.4	9.5	11.6
	1/4-5/16	6.4-7.9	11.1	13.2
	5/16-3/8	7.9-9.5	12.7	14.8
	3/8-1/2	9.5-12.7	16.4	18.5
	1/2-5/8	12.7-15.9	20.1	22.2
	5/8-3/4	15.9-19.0	23.3	25.4
5/32" 4.0mm	Up to 1/16	Up to 1.6	5.5	7.8
	1/16-1/8	1.6-3.2	7.1	9.4
	1/8-3/16	3.2-4.8	8.7	11.0
	3/16-1/4	4.8-6.4	10.3	12.6
	1/4-5/16	6.4-7.9	11.9	14.2
4.0mm	5/16-3/8	7.9-9.5	13.5	15.8
	3/8-1/2	9.5-12.7	17.1	19.4



Eyelet 雞眼

Unit:mm

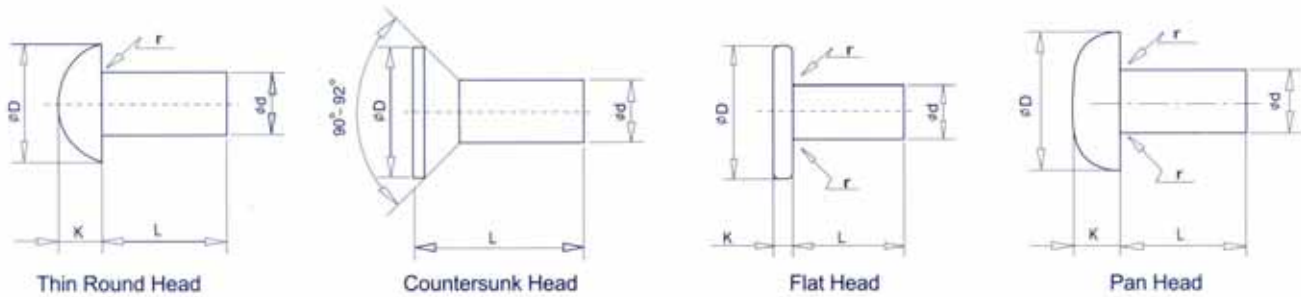
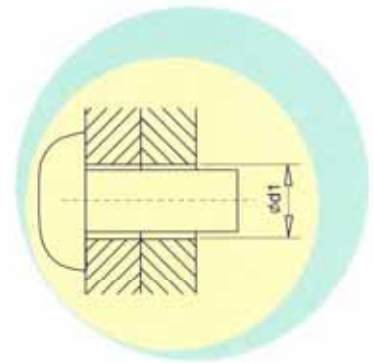
Outside Dia	Length (Min)	Length (Max)	Head	Thickness
1.5	2	8	3.5	0.2
1.6	2	8	3.5	0.2
1.7	2	8	3.5	0.2
1.8	2	8	3.5	0.2
2.0	2	10	3.5	0.2
2.3	2	11	3.5	0.2
2.4	3	11	3.5	0.2
2.5	3	13	4	0.2
2.6	3	13	4	0.2
2.8	3	15	4	0.2
3.0	3	18	4	0.2
3.5	3	20	4.5	0.2
4.0	4	22	5.5	0.25
4.5	4	22	5.5	0.25
5.0	5	22	5.5	0.25
5.5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

Cold Headed Rivets

鍋釘《RV》



Dimensions of cold headed rivets

Unit: mm

Type Of Head	d		D1	Thin Round Head		Counter-sunk Head		Flat Head				Pan Head				
	Size	Tolerance		Ref.	D	H	O	D	H	D	H	D	H			
Nominal Size				Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	
1.0	1.0	+0.04/-0.02	1.1	1.8	0.6	2.0	+0.3	-	-	-	-	-	-	-	-	
1.2	1.2	+0.05/-0.02	1.3	2.2	0.7	2.4	-0	-	-	-	-	-	-	-	-	
1.4	1.4	+0.06/-0.02	1.5	2.5	±0.1	0.8	2.8	-	-	-	-	-	-	-	-	
1.6	1.6	+0.07/-0.02	1.7	3.0	1.0	3.2	-	-	-	-	-	-	-	-	-	
1.7	1.7		1.8	3.0	1.0	±0.1	3.4	+0.4	-	-	-	-	-	-	-	
2.0	2.0	+0.08/-0.02	2.1	3.5	1.2	4.0	-	4.0	0.7	-	-	-	-	-	-	
2.3	2.3	+0.09/-0.02	2.4	4.0	1.4	4.6	-	4.6	+0	0.8	+0.2	-	-	-	-	
2.5	2.5	+0.1/-0.03	2.7	4.5	±0.15	1.6	5.0	5.0	-0.3	-0	-	-	-	-	-	
2.6	2.6		2.8	4.5	1.6	5.2	5.2	0.9	-	-	-	-	-	-	-	
3.0	3.0	+0.12/-0.03	3.2	5.7	2.1	6.0	+0.5	6.0	1.0	-	-	6.0	1.7	-	-	
3.5	3.5	+0.14/-0.04	3.7	6.7	±0.2	2.5	7.0	7.0	+0	1.1	+0.3	7.0	+0.3	1.9	+0.2	
4.0	4.0	+0.16/-0.04	4.2	7.2	±0.15	2.8	8.0	8.0	-0.4	1.3	-0	8.0	-0.2	2.2	-0.1	
5.0	5.0	+0.2/-0.05	5.3	9.0	3.5	10.0	+0.7	10.0	+0	1.6	+0.4	9.5	2.8	-	-	
6.0	6.0	+0.24/-0.06	6.3	10.0	4.2	±0.2	12.0	-0	12.0	-0.5	2.0	-0	10.8	-0.4/+0.3	3.3	-0.3/+0.2
8.0	8.0	+0.32/-0.08	8.4	13.3	±0.3	5.6	16.0	-	-	-	-	-	-	-	-	
10.0	10.0	+0.4/-0.08	10.6	16.0	7.0	±0.25	16.0	+0.8	-	-	-	-	-	-	-	
12.0	12.0	+0.48/-0.08	12.8	19.0	8.0	19.0	-0	-	-	-	-	-	-	-	-	

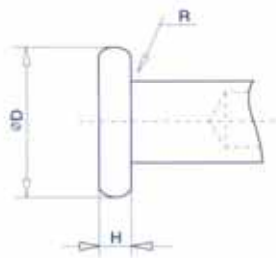
Tolerances of rivets length (L)

Unit: mm

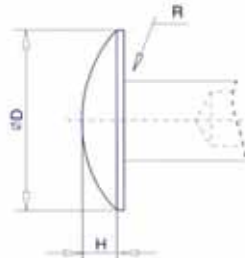
Type Of Rivet	Cold Head Rivets					Semi-Tubular Rivets		
	Shank Range					Shank Range		
Range Of Length	1.0-2.6	3.0-5.0	6.0-14.0	16.0-18.0	20.0	1.2-2.0	2.5-3.0	4.0-8.0
Below 2.5	+0.2/-0	-	-	-	-	-	-	-
2.5 - 4 (Incl.4)	+0.3/-0	+0.4/-0	-	-	-	±0.1	±0.15	-
4 - 10 (Incl.10)	+0.4/-0	+0.5/-0	+0.7/-0	-	-	±0.15	±0.2	±0.25
10 - 20 (Incl.20)	+0.6/-0	+0.6/-0	+0.8/-0	+0.8/-0	-	±0.2	±0.25	±0.3
20 - 40 (Incl.40)	+0.8/-0	+0.8/-0	+1.0/-0	+1.0/-0	-	-	±0.3	±0.4
Above 40	-	-	+1.0/-0	+1.0/-0	-	-	-	±0.5

Semi-Tubular Rivets

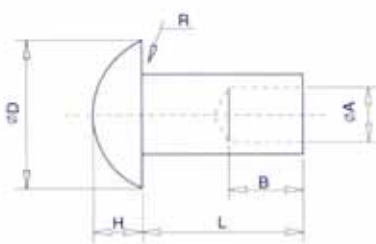
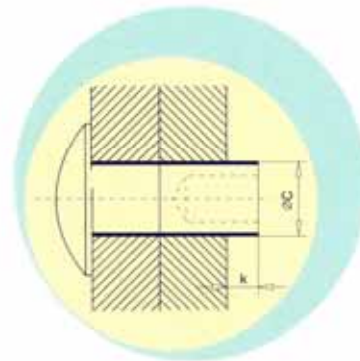
尾孔鍋釘《RV》



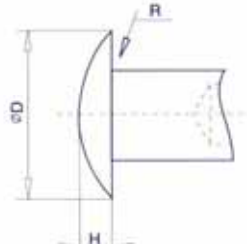
Flat Head (RVFTU)



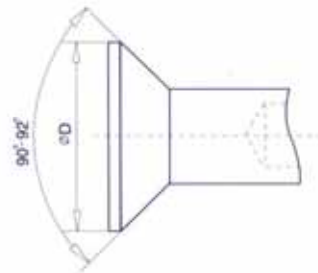
Truss Head (RVTTU)



Round Head (RVRTU)



Thin Round Head (RVTRTU)



Countersunk Head (RVKTU)

Dimensions of Semi-Tubular Rivets

Unit: mm

Nominal Size	Shank Diameter		Hole Dia. At End Of Rivet A		Hole Depth To Start Of Apex B		c	k
	Size	Tolerance	Size	Tolerance	Size	Tolerance		
1.2	1.2		0.8	± 0.04	1.1	± 0.10	1.3	0.7
1.6	1.6	+0.02/-0.05	1.1	± 0.04	1.4	± 0.10	1.7	1.0
2.0	2.0	+0.02/-0.06	1.3	± 0.05	1.8	± 0.15	2.1	1.2
2.5	2.5	+0.02/-0.08	1.7	± 0.07	2.3	± 0.15	2.7	1.5
3.0	3.0		2.1		2.7	± 0.20	3.2	1.8
4.0	4.0	+0.02/-0.10	2.8	± 0.10	3.6	± 0.20	4.2	2.4
5.0	5.0		3.5		4.5	± 0.25	5.3	3.0
6.0	6.0	+0.02/-0.12	4.2	± 0.12	5.4	± 0.30	6.3	3.6
8.0	8.0	+0.02/-0.15	5.6	± 0.12	7.2	± 0.30	8.4	5.0

Head Dimensions of Semi-Tubular Rivets

Unit: mm

Nominal Size	Round Head		Thin Round Head				Counter-sunk Head		Flat Head				Truss Head					
	D		H		D		H		D		D		H		D		H	
	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.	Size	Tol.
1.2	2.2		0.7		2.2	0.3			-	-	2.2	0.3			2.7	0.5		
1.6	3.0	+0/-0.3	1.0	± 0.1	3.0	+0/-0.3	0.4		-	-	3.0	+0/-0.3	0.4	± 0.1	3.6	+0/-0.3	0.7	± 0.1
2.0	3.7		1.2		3.7	-0.3	0.6	± 0.1	4.0	+0/-0.4	3.7	-0.3	0.6	± 0.1	4.5	-0.3	1.0	± 0.1
2.5	4.6		1.5		4.6	0.9			5.0		4.6	0.9			5.6	1.3		
3.0	5.4	+0/-0.4	1.8		5.4	+0/-0.4	1.1	± 0.15	6.0	+0/-0.5	5.4	+0/-0.4	1.1	± 0.15	6.6	+0/-0.4	1.4	± 0.15
4.0	7.2		2.4	± 0.15	7.2	-0.4	1.4	± 0.15	8.0	-0.5	7.2	-0.4	1.4	± 0.15	8.8	-0.4	1.8	± 0.15
5.0	9.0	+0/-0.5	3.0		9.0	+0/-0.5	1.8		10.0	+0/-0.6	9.0	+0/-0.5	1.8		11.0	+0/-0.5	2.4	
6.0	10.5	+0/-0.6	3.6	± 0.2	10.5	+0/-0.6	2.1	± 0.2	12.0	+0/-0.7	10.5	+0/-0.6	2.1	± 0.2	13.0	+0/-0.6	2.8	± 0.2
8.0	13.5		4.8		13.5	-0.6	2.8		16.0	+0/-0.8	13.5	-0.6	2.8		17.0	-0.6	3.8	

Washers

墊圈及五金片



Plain Circle Washers

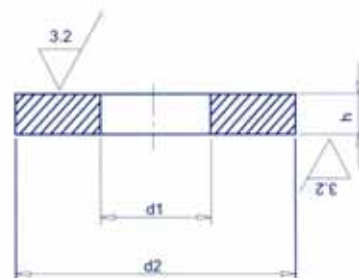
平口圓形墊圈 《WAPL》

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	1.4
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



Wave Washer

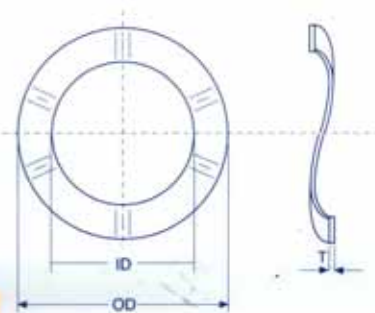
波浪介子

Unit: mm

Metric	Thickness	Inside Dia	Outside Dia
M2	0.2	2.2	6
M2.3	0.3	2.5	5.5
M2.5	0.3	2.7	7.5
M2.5	0.3	2.7	5
M2.5	0.5	2.8	5
M3	0.4	3.3	6.4
M3.5	0.3	3.8	7.4
M4	0.3	4.3	8
M4.5	0.4	4.9	8
M5	0.4	5.2	8.3

Unit: mm

Metric	Thickness	Inside Dia	Outside Dia
M5.5	0.4	5.8	11
M6	0.3	6.4	11
M7	0.3	7.2	11
M8	0.4	8.3	15
M9	0.3	9.2	15
M11.5	0.4	11.9	18
M12	0.2	12.3	18
M13	0.3	13.5	19.9
M16.5	0.3	17	22
M20	0.5	20	24.3

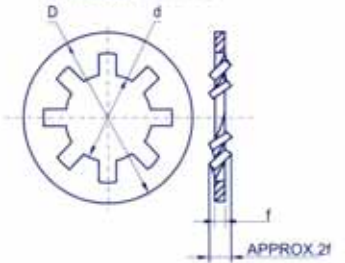


Toothed Lock Washers

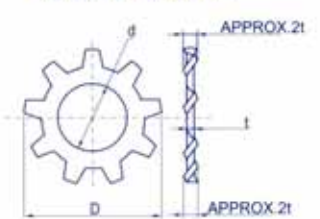
齒形墊圈

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		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		0.45	±0.035	8	9
[3.5]	3.7	+0.2 0	7.5		0.5	±0.035	8	9
4	4.3		8.5	0 -0.4	0.5	±0.035	8	9
[4.5]	4.8		9.5		0.6	±0.04	10	10
5	5.3		10		0.6	±0.04	10	10
6	6.4		11		0.8	±0.05	9	12
[7]	7.4	+0.3 0	13	0 -0.5	0.8	±0.05	9	12
8	8.4		15		0.9	±0.055	10	14
10	10.5		18		1	±0.055	10	14
12	12.5	+0.4 0	21		1.2	±0.065	12	14
[14]	14.5		23					
16	16.5		26	0 -0.6				
[18]	19	+0.5 0	29					

Internal Tooth Type (A)
內齒墊圈 (WAIT)



External Tooth Type (B)
外齒墊圈 (WAET)

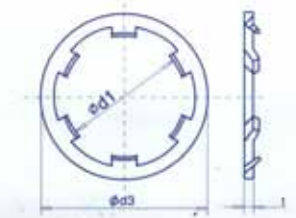


Circular External (WAECR)

輕型軸用定位介子

Unit: mm

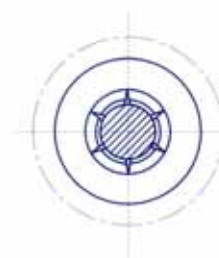
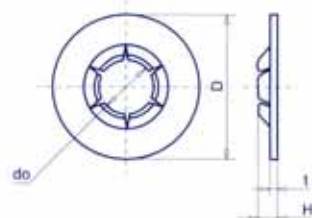
Size-No.	Ring dimension					
	d1		d3		t	No. of tooth
	Basic	Tol.	Basic	Tol.		
CSTW -2	1.9	±0.05	6		0.25	3
2.4	2.2	+0.1 0	6.4		0.25	3
3	2.8		8		0.25	4
3.5	3.3	0 -0.1	8.5		0.25	4
4	3.8		9		0.25	4
4.5	4.3		10	±0.2	0.25	5
5	4.8		10		0.25	5
6	5.8		11		0.25	5
8	7.8		13		0.25	5
10	9.8	+0.1 0	15.4		0.25	6
12	11.8		17.8		0.4	6
14	13.8		20.3	±0.3	0.4	6
16	15.8		22.8		0.4	6
18	17.8		25		0.4	8



Self-locking Rings (External) (WAESLR)

軸用定位介子

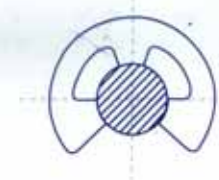
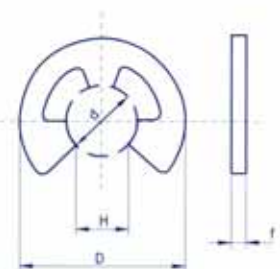
Size-No.		Ring dimension				
		do		D	H	t
		Basic	Tol.			
SPN-	1.2	1.1		4.5	0.6	0.25
	1.5	1.4	$\begin{matrix} 0 \\ -0.1 \end{matrix}$	5.2	0.6	0.25
	2	1.9		6	0.7	0.25
	2.4	2.3		7	0.8	0.25
	2.6	2.5		7	0.9	0.25
	3	2.9		10	1.3	0.3
	4	3.9		12	1.4	0.3
	5	4.9	$\begin{matrix} 0 \\ -0.15 \end{matrix}$	14	1.55	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



E-Rings (WAER)

E型及弓E型介子

Size-No.		Ring dimension							
		d		D		H		t	
		Basic	Tol.	Basic	Tol.	Basic	Tol.	Basic	Tol.
ETW	※0.6	0.6	± 0.04	1.5		0.45	± 0.02	0.2	
	※0.7	0.67	0	2		0.55	$\begin{matrix} 0 \\ -0.1 \end{matrix}$	0.2	
	0.8	0.8	-0.08	2	± 0.1	0.7		0.2	± 0.02
	※1	0.98		2.8		0.88		0.2	
	1.2	1.2		3		1		0.3	± 0.025
	1.5	1.5		4		1.3	$\begin{matrix} 0 \\ -0.25 \end{matrix}$	0.4	
	※1.9	1.9	0	4.5		1.7		0.4	
	2	2	-0.09	5		1.7		0.4	± 0.03
	※2.3	2.3		6		2		0.4	
	2.5	2.5		6		2.1		0.4	
	3	3		7		2.6		0.6	
	※3.2	3.2		7		2.8		0.6	
	4	4	0	9	± 0.2	3.5	0	0.6	
	5	5	-0.12	11		4.3	-0.3	0.6	± 0.04
	6	6		12		5.2		0.6	
	7	7		14		6.1		0.8	
8	8	0	16		6.9		0.8		
9	9	-0.15	18		7.8	$\begin{matrix} 0 \\ -0.35 \end{matrix}$	0.8		
10	10		20		8.7		0.8	± 0.05	

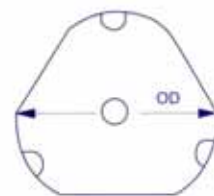


※ Our company's specification

Contact Sheet

鍋仔片

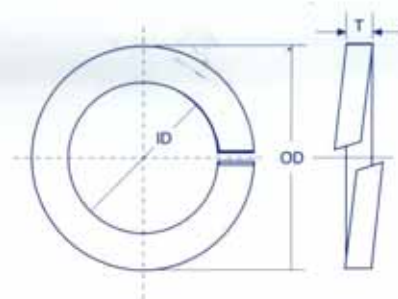
Metric	Model No	Outside Dia	Thickness	(G)
M5	GM5D300-2005	5	0.05	300g
M5	GM5D400-1505	5	0.05	400g
M6	GM6D100-0906	6	0.08	100g
M6	GM6C150-2005	6	0.08	150g
M6	GM6D250-1507	6	0.08	250g
M7	GM7D100-0907	7	0.08	100g
M7	GM7C200-1506	7	0.08	200g
M7	GM7D200-1507	7	0.08	200g
M7	GM7D350-1508	7	0.08	350g
M8	GM8C250-2008	8	0.08	250g
M8	GM8D250-1508	8	0.08	250g
M8	GM8D300-3008	8	0.08	300g
M9	GM9D300-1508	9	0.10	300g
M9	GM9C300-1508	9	0.10	350g



Spring Washer

開口彈弓介子

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



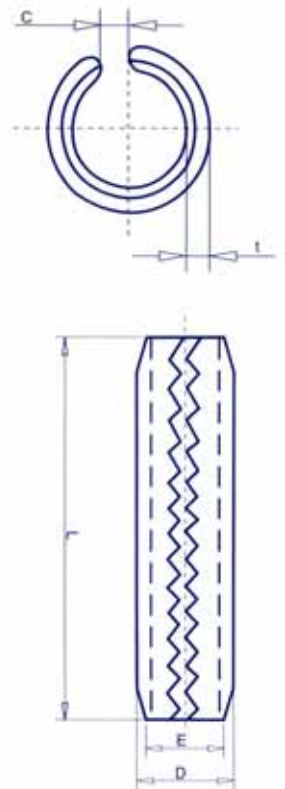
如有特別尺寸，可按貴公司圖紙生產。

Spring Pins (Light duty) 《PNSPL》

彈弓邊

Nominal Dia		1.6	2	2.5	3
Dimension	D	1.8	2.25	2.75	3.25
	t	1.7	2.15	2.65	3.15
Hole Size	Basic	0.15	0.2	0.25	0.3
	Tol.	+0.08 0		+0.09 0	

Lenght L	4; 5; 6; 8; 10	12; 14; 16; 18; 20; 22; 25; 28; 32
Tol.	+0.5 0	+1 0

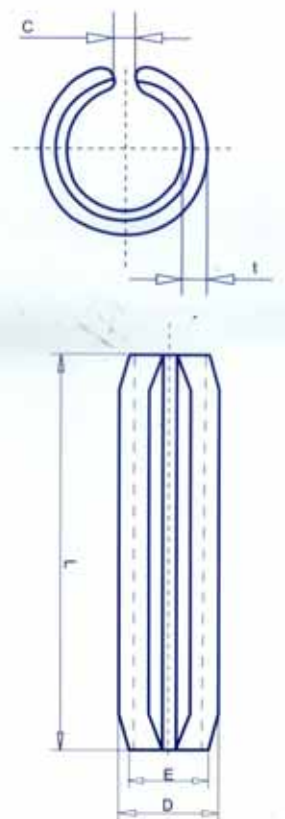


Spring Pins (For general use) 《PNSP》

彈弓邊

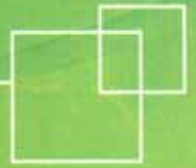
Nominal Dia		1	1.2	1.5	1.6	2	2.5	3	*3.5	4	*4.5	5	6	8	10
Dimension	D	1.2	1.4	1.7	1.8	2.25	2.75	3.25	3.84	4.4	4.84	5.4	6.4	8.6	10.6
	t	1.1	1.3	1.6	1.7	2.15	2.65	3.15	3.7	4.2	4.7	5.2	6.2	8.3	10.3
E	Basic	0.2	0.25	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.2	1.6	2
	Max.	0.9	1.1	1.4	1.5	1.9	2.4	2.9	3.4	3.9	4.3	4.8	5.8	7.8	9.8
Double Shear Strength Kg (KN)		70 (0.69)	104 (1.02)	158 (1.55)	171 (1.68)	281 (2.76)	440 (4.3)	633 (6.2)	861 (8.44)	1130 (11.08)	1425 (13.97)	1760 (17.25)	2532 (24.83)	4500 (44.13)	7030 (68.94)
Hole Size Basic		1	1.2	1.5	1.6	2	2.5	3	3.5	4	4.5	5	6	8	10
Tol.			+0.08 0			+0.09 0			+0.12 0			+0.15 0			

Lenght L	4; 5; 6; 8; 10	12 - 50	55 - 140
Tol.	+0.5 0	+1 0	+1.5 0



Auto-Lath Parts

自動車床零件



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A Brief On Auto Lathe Lathe Products

自動車床產品簡介

Size Ranges: Dia. 1-42mm
 Free-cutting Materials: Antimony, Copper, Steel, Stainless Steel etc.

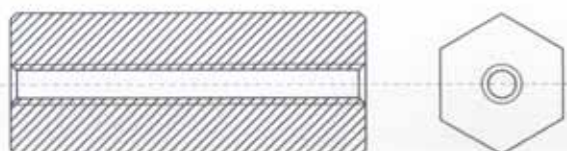
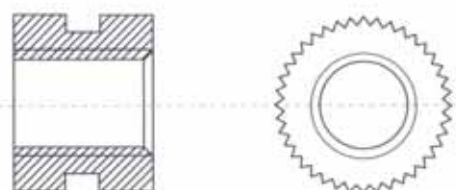
本公司可依客戶要求加工、鋅、銅、鋼、不銹鋼等
 ϕ 1-42mm 各種材料的自動車床件。產品廣泛使用
 於電子、家電、傢私、玩具、五金、機床、塑膠、
 汽車等各行各業。質優價平。

<—> Round Bar 常規圓軸類零件

1. SHAFT 光軸類



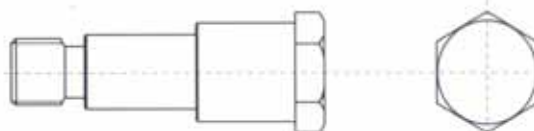
2. RIBS 直紋花類



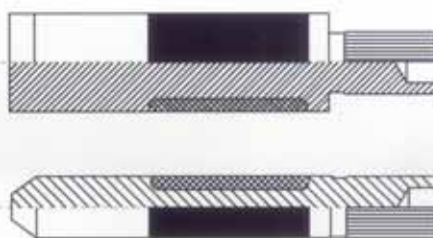
3. KNURLS 滾花類



<—> Hexagon Bar 六角形類材料



<—> Square Bar 四方插腳類



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