Ergonomics Electric Screwdrivers

Enjoying in Technique of Assemblies

享 受 裝 配 科 技 —— 好幫手



st 1

SERVO SCREWDRIVERS

www.asa-tool.com

享 受 裝 配 科 技

Enjoying in Technique of Assemblies

ASA

Ergonomics Electric Screwdrivers

IT'S VERY WELL
MADE IN TAIWAN



榮獲2000年台灣產品形象金質獎得獎記事

ASA Enterprise Co., Ltd. won the National Gold Awards of Excellence in 2000. The making of the award has the following background.



IS9001質量體系認證

Quality control system obtain the ISO9001 approval, SGS United Kingdom Ltd.

公司簡介 Company profile

專業於研發、製造、銷售工業級生產線上裝配用的精密式電動起子、氣動起子及管理化、自動化、數位化等相關週邊產品。在誠實、積極、創新的經營理念下，產品的形象及品質不斷地提升，產品更獲得20餘國、50多樣以上各種專利；並在立足台灣、征服亞太、放眼世界的政策指導下，得以廣開市場、屢創佳績。為服務顧客，提供優質的產品，全體從業人員莫不以全員參與、持續改善、滿足顧客的需求與期望為共同努力的目標。

ASA Tools Enterprise Corp. engages in R&D, manufacture and selling industrial level precision electric screwdrivers and pneumatic screwdrivers equipped for the production line, and the relevant peripheral productw for management, automation and digitalization. Based on our mission statement of honesty, enthusiasm and innovation, the image and quality of our products are continuously enhanced. Our products have obtained more than 50 kinds of patents in more than 20 countries. Under the company's policy of setting foothold in Taiwan, conquerign Asia & Pacific and setting eyes on the whole world, we are able to expand the market and make continual good business progress. To serve customers and provide products of the best quality, all staff participatein sustaining the continuing improvement.
Free call : 0800-252-252

台灣產業以創造多項世界王國而名揚國際。21世紀尤以筆記型電腦、行動電話、數位相機、PDA等各式產品，屢創佳績、領先世界各國。

多年來政府更以積極態度舉辦各項選拔以鼓勵業界投入研發，開創新產品。而由經濟部主導之國家產品形象選拔更是代表產業界創新產品的最高榮譽，大家莫不絞盡腦汁，彙集衆人智慧、積極爭取的獎項。

好幫手是2000年台灣產品形象金質獎受領者之一。此乃代表公司致力於電動起子研發創新獲得衆多產官學界肯定的最高榮譽。

本著積極、創新、永續經營的經營理念，公司上下員工將本著一貫的熱枕，積極致力於電動起子的創新改良，以回饋愛用者的支持，間接負起企業對社會應盡的責任。

Taiwanese industry is well-known internationally for creating many items of worldwide demand. in the 21st century, Taiwanese industry has made good business achievements based on the product lines of notebook computers, mobiles , digital cameras, PDAs, etc. to take the lead in countries all over the world.

The government has held elections of all items in active view for many years to encourage the industrial circle to contribute in R&D and development of new products. The National Gold Awards of Excellence held nu the Ministry of Economic Affairs further represent the supreme honor of the most innovative products in the industry. It is also an award that everybody makes his/her greatest effort and concentrates all their intelligence to strive for, thus it is that ASA Tools is one of the awarded companies for the National Gold Awards of Excellence in 2000. This shows that ASA Tools is dedicated in R&D and innovation in manufacturing electric screwdrivers, winning the supreme honor of being approved in many industrial, official and academic circles.

In light ot the mission objectives of enthusiasm, innovation and perpetual operation, all the staff of ASA Tools positively contribute to the innovation and improvement of electric screwdrivers in return for the support of our users, and indirectly accept the necessary burden of taking corporate responsibility in society.

目　　錄
CONTENTS

好幫手 伺服起子（附電源控制器）
ASA Servo Screwdriver (with controller) ..... 6~13

好幫手 全自動電動起子　低壓直流馬達 (附電源控制器)
ASA Full-auto shut off - Low volt. DC motor (with controller) ..... 14~22

好幫手 全自動電動起子　高壓直流馬達 (直接插入市電)
ASA Full-auto shut off - High volt. DC motor (controllerless) ..... 23~24

好幫手 半自動電動起子　高壓直流馬達 (直接插入市電)
ASA Semi-auto shut off - High volt. DC motor (controllerless) 25

好幫手 全自動氣動起子　氣動馬達
ASA Full-auto shut off - Pneumatic motor ..... 26~29

好幫手 電源控制器
ASA Controller ..... 30~31

好幫手 螺絲鎖付數位化管理系統
ASA Digitalized Management System for screw fastening ..... 32~33

好幫手 可調式螺絲整列機
ASA Adjustable Screw Feeder 34

好幫手 扭力支臂架夾持系統
ASA Tool support systems 35

好幫手 數位式 / 高精度扭力測試機
ASA Digital / High-precision Torque Meter ..... 36~37

好幫手 附件及週邊設備 / 起子頭
ASA Accessories of electric screwdriver / Bit ..... 38~39

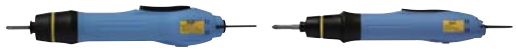
好幫手 客戶訪談表
ASA Customer interview list 40

好幫手 產品 ASA Products

伺服起子
Servo Screwdriver



高效能無刷馬達電動起子
High efficiency brushless motor electric screwdrivers



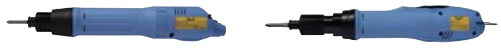
瑞士馬達電動起子/氣吸式電動起子
Swiss motor / Vacuum pick up electric screwdrivers



標準型馬達電動起子
Standard motor electric screwdrivers



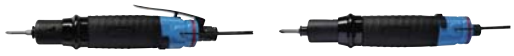
全自動碟煞式電動起子
Full-auto disk-brake shut off electric screwdrivers



半自動電動起子
Semi-auto shut off electric screwdrivers



T系列氣動起子
T series pneumatic screwdrivers



電源控制器
Controller / Power Supply



螺絲鎖付數位化管理系統
Digitalized Management System for screw fastening



可調式螺絲整列機
Adjustable Screw Feeder



扭力支臂架夾持系統
Tool support systems



扭力測試機
Torque Meter



附件及週邊設備 / 起子頭
Accessories of electric screwdriver / Bit



好幫手產品索引
ASA Products index

IT'S VERY WELL MADE IN TAIWAN

伺服起子規格表 Servo Screwdriver quick reference char

區分 Distribution	馬達區分 Motor Type	起子機型 Model		扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)	可鎖付螺絲脛部ψ徑 Available screw shank (mm)		頁 Page
		槓桿式 Lever start	下壓式 Push to start	Kgf-cm	lbf-in			機械螺絲 Machine Screw	自攻螺絲 Tapping Screw	
伺服起子 Servo Screwdriver	低壓直流馬達（附電源控制器） Low volt. DC motor (with controller)	ST1-12SA	ST1-12SA	2.4~12	2.08~10.41	ST1-1 ST1-2	2000	1.4~3.0	1.4~2.6	13
		ST1-12SB	ST1-12SB	2.4~12	2.08~10.41	ST1-1 ST1-2	2000	1.4~3.0	1.4~2.6	
		ST1-30SA	ST1-30SA	6~30	5.2~26.04	ST1-1 ST1-2	1100	3.0~5.0	2.6~4.0	
		ST1-30SB	ST1-30SB	6~30	5.2~26.04	ST1-1 ST1-2	1100	3.0~5.0	2.6~4.0	
		ST1-50SA	ST1-50SA	10~50	8.68~43.4	ST1-1 ST1-2	700	4.0~6.0	3.5~5.0	
		ST1-50SB	ST1-50SB	10~50	8.68~43.4	ST1-1 ST1-2	700	4.0~6.0	3.5~5.0	
		ST1-75SA	ST1-75SA	15~75	13.02~65.1	ST1-1 ST1-2	500	5.0~7.0	4.0~6.0	

低壓(直流)電動起子規格表 Low voltage electric screwdriver quick reference chart

區分 Distribution	馬達區分 Motor Type	起子機型 Model		扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)		可鎖付螺絲脛部ψ徑 Available screw shank (mm)		頁 Page
		槓桿式 Lever start	下壓式 Push to start	Kgf-cm	lbf-in		Lo	Hi	機械螺絲 Machine Screw	自攻螺絲 Tapping Screw	
全自動電動起子 Full-auto shut off	低壓直流馬達（附電源控制器） Low volt. DC motor (with controller)	高效能小型無刷馬達電動起子 High efficiency brushless motor low torque electric screwdrivers									
		BS-100		0.15~1.00	0.13~0.87	APM-202B	100	200	0.7~1.8	0.6~1.4	15
		BS-100F		0.15~1.00	0.13~0.87	APM-302B AM-30	350	500	0.7~1.8	0.6~1.4	15
		BS-200		0.30~2.00	0.26~1.70	APM-302B AM-30	700	1000	1.0~2.2	1.0~2.0	15
		BS-250		0.40~3.00	0.35~2.60	APM-302B AM-30	450	700	1.0~2.6	1.0~2.0	15
		BS-300		0.50~5.00	0.43~4.30	APM-302B AM-30	700	1000	1.0~2.6	1.0~2.3	15
		BS-400		1.00~6.00	0.87~5.20	APM-302B AM-30	700	1000	1.4~2.6	1.4~2.3	15
		BS-450		1.50~10.0	1.30~8.70	APM-302B AM-30	700	1000	2.0~3.0	2.0~2.6	15
		高效能中型無刷馬達電動起子 High efficiency brushless motor medium torque electric screwdrivers									
		BS-2000		0.30~2.00	0.26~1.70	APM-302B AM-30	700	1000	1.0~2.2	1.0~2.0	16
		BS-3000		0.50~5.00	0.43~4.30	APM-302B AM-30	700	1000	1.0~2.6	1.0~2.3	16
		BS-4000	BS-4000F	1.50~12.0	1.30~10.4	APM-302B AM-30	700~1000	1400~2000	1.4~3.0	1.4~2.6	16
		BS-6000		2.00~16.0	1.70~13.9	APM-302B AM-30	700	1000	2.2~4.2	2.0~3.2	16
		BS-6500		4.00~20.0	3.50~17.4	APM-302B AM-30	700	1000	2.6~4.0	2.3~3.5	16
		BS-6800		5.00~25.0	4.30~21.7	APM-302B AM-30	500	750	3.0~5.0	2.6~4.0	16
		瑞士馬達電動起子 Swiss motor electric screwdrivers									
		ASA-S1000M (超迷你型/Super mini)		0.15~1.00	0.13~0.87	APM-202B APM-302B AM-55 AM-65	150 350 150 350	300 500 250 500	1.0~1.8	0.6~1.4	18
		ASA-S2000M (超迷你型/Super mini)		0.30~2.00	0.26~1.70	APM-302B AM-65	650	1000	1.0~2.2	1.0~2.0	18
		ASA-S2500M (超迷你型/Super mini)		0.40~3.00	0.35~2.60	APM-302B AM-65	450	700	1.0~2.6	1.0~2.0	18
		ASA-2000M	ASA-2000MS	0.30~2.00	0.26~1.70	APM-302B AM-65	450~700	700~1000	1.0~2.2	1.0~2.0	18
		ASA-3000M	ASA-3000MS	0.50~5.00	0.43~4.30	APM-302B AM-65	400~600	700~1000	1.0~2.6	1.0~2.3	18
		ASA-4000M	ASA-4000MS	1.00~6.00	0.87~5.20	APM-302B AM-65	400~600	700~1000	1.4~2.6	1.4~2.3	18
		瑞士馬達氣吸式電動起子 Swiss motor Vacuum pick up electric screwdrivers									
		ASA-S1000MA (超迷你型/Super mini)		0.15~1.00	0.13~0.87	APM-202B APM-302B AM-55 AM-65	150 350 150 350	300 500 250 500	1.0~1.8	0.6~1.4	18
		ASA-S2000MA (超迷你型/Super mini)		0.30~2.00	0.26~1.70	APM-302B AM-65	650	1000	1.0~2.2	1.0~2.0	18
		ASA-S2500MA (超迷你型/Super mini)		0.40~3.00	0.35~2.60	APM-302B AM-65	450	700	1.0~2.6	1.0~2.0	18
		ASA-2000MA	ASA-2000MSA	0.30~2.00	0.26~1.70	APM-302B AM-65	450~700	700~1000	1.0~2.2	1.0~2.0	18
		ASA-3000MA	ASA-3000MSA	0.50~5.00	0.43~4.30	APM-302B AM-65	400~600	700~1000	1.0~2.6	1.0~2.3	18
		ASA-4000MA	ASA-4000MSA	1.00~6.00	0.87~5.20	APM-302B AM-65	400~600	700~1000	1.4~2.6	1.4~2.3	18
		標準小型馬達電動起子 Standard low torque electric screwdrivers									
		ASA-2000	ASA-2000S	0.30~2.00	0.26~1.70	APM-352B AM-45	450~700 450~700	700~1000 700~1000	1.0~2.2	1.0~2.0	20
		ASA-3000	ASA-3000S	0.50~5.00	0.43~4.30	APM-352B AM-45	450~700 450~700	700~1000 700~1000	1.0~2.6	1.0~2.3	20
		ASA-4000	ASA-4000S	1.00~6.00	0.87~5.20	APM-352B AM-45	450~700 450~700	700~1000 700~1000	1.4~2.6	1.4~2.3	20
		ASA-4500	ASA-4500S	1.50~10.0	1.30~8.70	APM-352B AM-45	450~700 450~700	700~1000 700~1000	2.0~3.0	2.0~2.6	20
		標準中型馬達電動起子 Standard medium torque electric screwdrivers									
		ASA-6000	ASA-6000(PS)	1.50~12.0	1.30~10.4	APM-302C AM-85	650 600 650 600	1150 1000(PS) 1150 1000(PS)	2.0~3.0	2.0~2.6	21
		ASA-6500	ASA-6500(PS)	4.00~20.0	3.50~17.4	APM-302C AM-85	550	800	2.6~4.0	2.3~3.5	21
		ASA-6800	ASA-6800(PS)	5.00~25.0	4.30~21.7	APM-302C AM-85	450	700	3.0~5.0	2.6~4.0	21
		標準大型馬達電動起子 Standard high torque electric screwdrivers									
		ASA-7500	ASA-7500(PS)	7.00~30.0	6.10~26.0	APM-302C AM-85	700	1000	3.0~5.0	2.6~4.0	22
		ASA-8500	ASA-8500(PS)	12.0~40.0	10.4~34.7	APL-301B	650	750	3.5~5.5	3.0~4.5	22
		ASA-9000	ASA-9000(PS)	20.0~50.0	17.3~43.4	APL-301B	450	550	4.0~6.0	3.5~5.0	22

＊ 全系列可對應防靜電(ESD)結構 — 選購品　　＊ ESD available — optional

好幫手產品索引
ASA Products index

IT'S VERY WELL MADE IN TAIWAN

高壓(直流)電動起子規格表 High voltage electric screwdriver quick reference chart

區分 Distribution	馬達區分 Motor Type	起子機型 Model			扭力範圍 Torque range		無載轉速(±10%) No Load Speed (rpm)	可鎖付螺絲脛部ψ徑 Available screw shank (mm)		頁 Page
		槓桿式 Lever start	下壓式 Push to start	ACV	kgf-cm	lbf-in		機械螺絲 Machine Screw	自攻螺絲 Tapping Screw	
全自動電動起子 Full-auto shut off	高壓直流馬達（直接插入市電） High volt. DC motor (controllerless)		全自動中型碟煞式電動起子	Full-auto disk-brake shut off medium torque electric screwdrivers						
			ASC-3681 ASC-3682	115 230	2.2 ~ 12.0	1.9 ~ 10.4	950	2.0 ~ 3.0	2.0 ~ 2.6	23
			ASC-5681	115	4.0 ~ 18.0	3.5 ~ 15.6	1000	2.6 ~ 4.0	2.3 ~ 3.5	23
			ASC-5682	230						
			ASC-6681 ASC-6682	115 230	8.0 ~ 25.0	6.9 ~ 21.7	650	3.0 ~ 4.5	2.6 ~ 4.0	23
			全自動大型碟煞式電動起子	Full-auto disk-brake shut off high torque electric screwdrivers						
			AD-5681 AD-5682	115 230	8.0 ~ 25.0	6.9 ~ 21.7	750	3.0 ~ 4.5	3.0 ~ 4.0	24
			AD-7681	115	10.0 ~ 30.0	8.7 ~ 26.0	750	3.0 ~ 5.0	2.6 ~ 4.0	24
			AD-7682	230						
			AD-8681 AD-8682	115 230	20.0 ~ 50.0	17.3 ~ 43.4	500	4.0 ~ 6.0	3.5 ~ 5.0	24
半自動電動起子 Semi-auto shut off			半自動電動起子	Semi-auto shut off electric screwdrivers						
		AS-1631 AS-1632		115 230	0.2 ~ 2.0	0.17 ~ 1.7	1000	1.0 ~ 2.0	1.0 ~ 1.7	25
		AS-2631		115	0.5 ~ 7.0	0.43 ~ 6.1	1000	1.0 ~ 2.6	1.0 ~ 2.3	25
		AS-2632		230						
		AS-3631 AS-3632		115 230	1.0 ~ 12.0	0.9 ~ 10.4	1000	1.4 ~ 3.0	1.4 ~ 2.6	25
		AS-4631		115	2.0 ~ 18.0	1.7 ~ 15.6	1000	2.0 ~ 4.0	2.0 ~ 3.0	25
		AS-4632		230						
		AS-6631 AS-6632		115 230	5.0 ~ 25.0	4.3 ~ 21.7	1000	2.6 ~ 5.0	2.3 ~ 4.0	25

T 系列氣動起子規格表 T series pneumatic screwdriver quick reference chart

區分 Distribution	馬達區分 Motor Type	起子機型 Model				扭力範圍 Torque range		無負荷回轉速(±10%) No Load Speed (rpm)	可鎖付螺絲脛部ψ徑 Available screw shank (mm)		頁 Page
		槓桿式 Lever start		下壓式 Push to start		kgf-cm	lbf-in		機械螺絲 Machine Screw	自攻螺絲 Tapping Screw	
		標準型 Standard	彎90°型 Right angle head	標準型 Standard	槍型 Pistol Grip						
全自動氣動起子 Full-auto shut off	氣動馬達 Pneumatic motor	ASA-T10L	- R/A	ASA-T10P	- P/G	0.5 ~ 2.0	0.4 ~ 1.7	1000	1.0 ~ 2.2	1.0 ~ 1.7	26-29
		ASA-T20L	- R/A	ASA-T20P	- P/G	1.0 ~ 8.0	0.9 ~ 6.9	1000	1.7 ~ 3.3	1.3 ~ 2.7	
		ASA-T30L	- R/A	ASA-T30P	- P/G	2.0 ~ 16.0	1.7 ~ 13.9	1800	2.2 ~ 4.2	1.7 ~ 3.2	
		ASA-T40L	- R/A	ASA-T40P	- P/G	5.0 ~ 30.0	4.3 ~ 26.0	1000	2.6 ~ 5.0	2.3 ~ 4.0	
		ASA-T50L	- R/A	ASA-T50P	- P/G	7.0 ~ 50.0	6.0 ~ 43.4	1400	2.9 ~ 6.0	2.6 ~ 4.9	
		ASA-T55L	- R/A	ASA-T55P	- P/G	7.0 ~ 65.0	6.0 ~ 56.4	1000	2.9 ~ 6.4	2.6 ~ 5.4	
		ASA-T60L	- R/A	ASA-T60P	- P/G	15.0 ~ 95.0	13.0 ~ 82.5	550	4.1 ~ 7.0	3.3 ~ 6.0	

週邊設備 Attachment

區分 Distribution		頁 Page
好幫手電源控制器	ASA Controller	30-31
好幫手螺絲鎖付數位化管理系統	ASA Digitalized Management System for screw fastening	32-33
好幫手可調式螺絲整列機	ASA Adjustable Screw Feeder	34
好幫手扭力支臂架夾持系統	ASA Tool support systems	35
好幫手數位式扭力測試機	ASA Digital torque meters	36
好幫手高精度扭力測試機	ASA High-precision Torque Meter	37
好幫手附件及週邊設備	ASA Accessories of electric screwdriver	38
好幫手起子頭	ASA Bit	39

ASA伺服螺絲鎖付系統功能特色
Features of ASA Servo Screwdriver

單控制器可驅動2把螺絲起子
1 controller activates 2 Servo screwdriver.

扭力閉環控制、重複精度高
Torque closed-loop control, repeatability with high precision.

500個機種、500顆螺絲設定
Supports 500+ and max. 500 screw types data settings.

可實現滑牙、浮牙等多種不良品分析機制
Problem analysis: stripped / floating screw…etc.

數據可追溯
Data traceability.

提高生產力
Improves productivity.

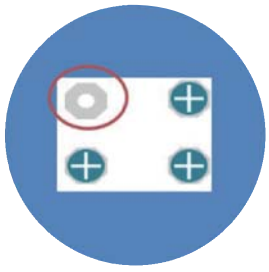
扭矩、角度、貼合點控制與監控
Torque, angle , seating point control strategy and monitoring.

擰緊中確保工具正確、程式在正確工序中被使用，提高產品質量並減少材料浪費
Improves process control and product quality; decreases material waste.

常見螺絲鎖付品質議題 Tightening Quality Issues



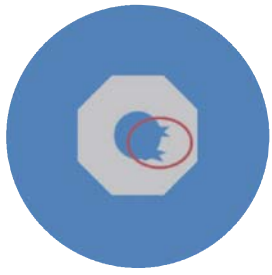
螺絲損壞檢測
Defective screw thread



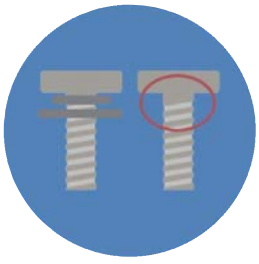
漏鎖檢測
Missing screw



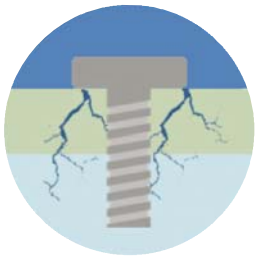
裝錯螺絲檢測(長的裝成短的)
Wrong screw



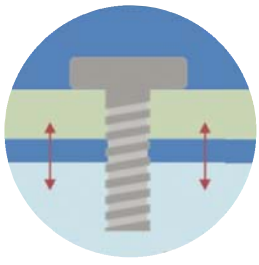
螺孔有問題
Defective screw hole



墊片漏裝檢測
Missing washer

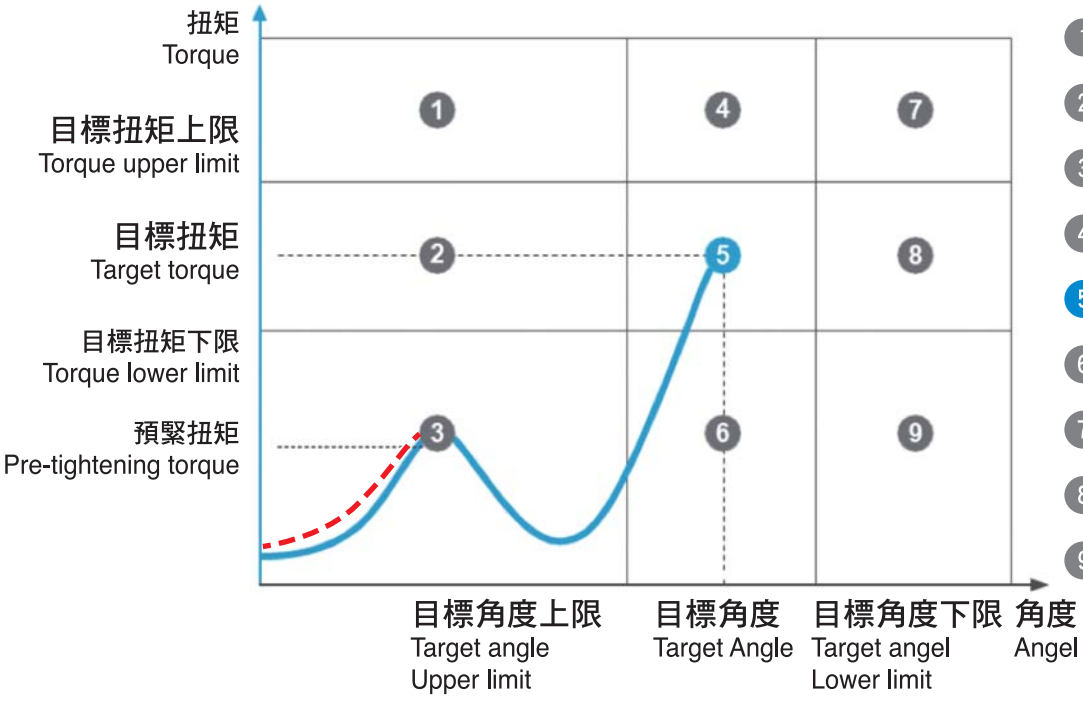


鎖過緊
Over-tightening



浮牙檢測
Floating screw

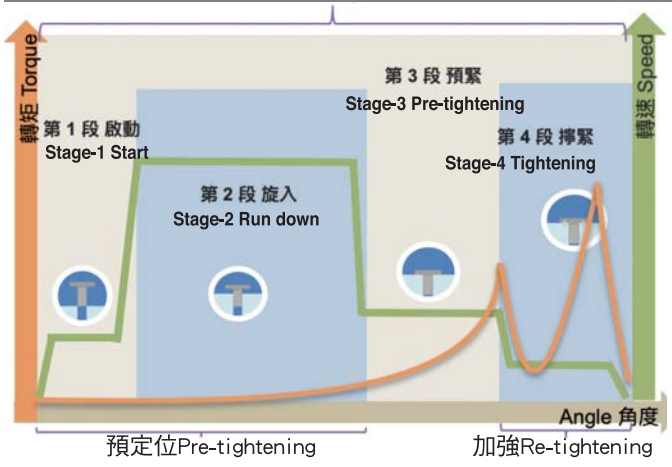
常見螺絲鎖付品質議題
Tightening Quality Issues



1. 螺絲已鎖緊 Screw has tightened.
2. 提早鎖死、螺孔錯誤 Screw has blocked, nut quality issue
3. 操作失誤(鎖付行程未完成) Human error (lift up too early)
4. 鎖付速度過快 Tightening speed too fast.
5. 正確鎖付行為 Good result.
6. 螺絲滑牙 Screw stripping.
7. 鎖付速度過快 Tightening speed too fast.
8. 螺絲過長、漏放墊片 Screw error, gasket miss.
9. 鎖裂、螺絲滑牙 Work cracking, screw stripping.

常見螺絲鎖付品質議題 Tightening Quality Issues

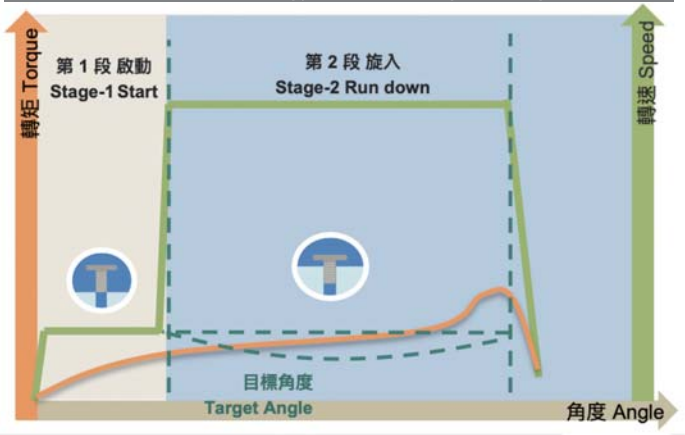
標準鎖付 Standard tightening



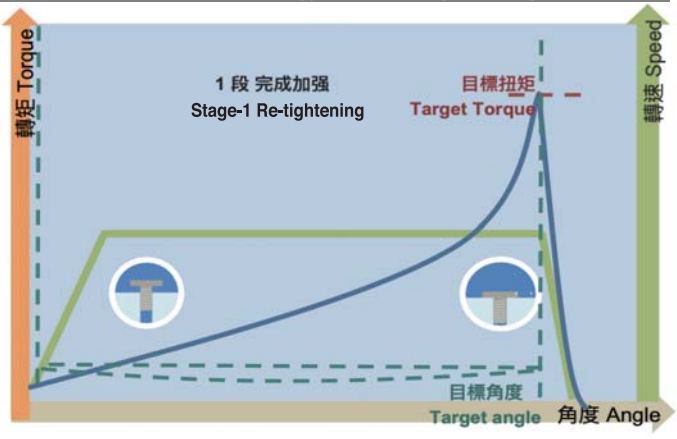
控制策略1 - 標準策略 Control strategy 1 - Standard tightening



控制策略2 - 預定位 Control strategy 2 - Pre-tightening



控制策略3 - 加強 Control strategy 3 - Re-tightening



ASA伺服螺絲鎖付系統鏈接

ASA System Structure



ASA伺服螺絲鎖付系統的架構
ASA Servo Screwdriver Structure



伺服螺絲鎖付控制器
Servo Screwdriver controller



高速通訊
High speed communication

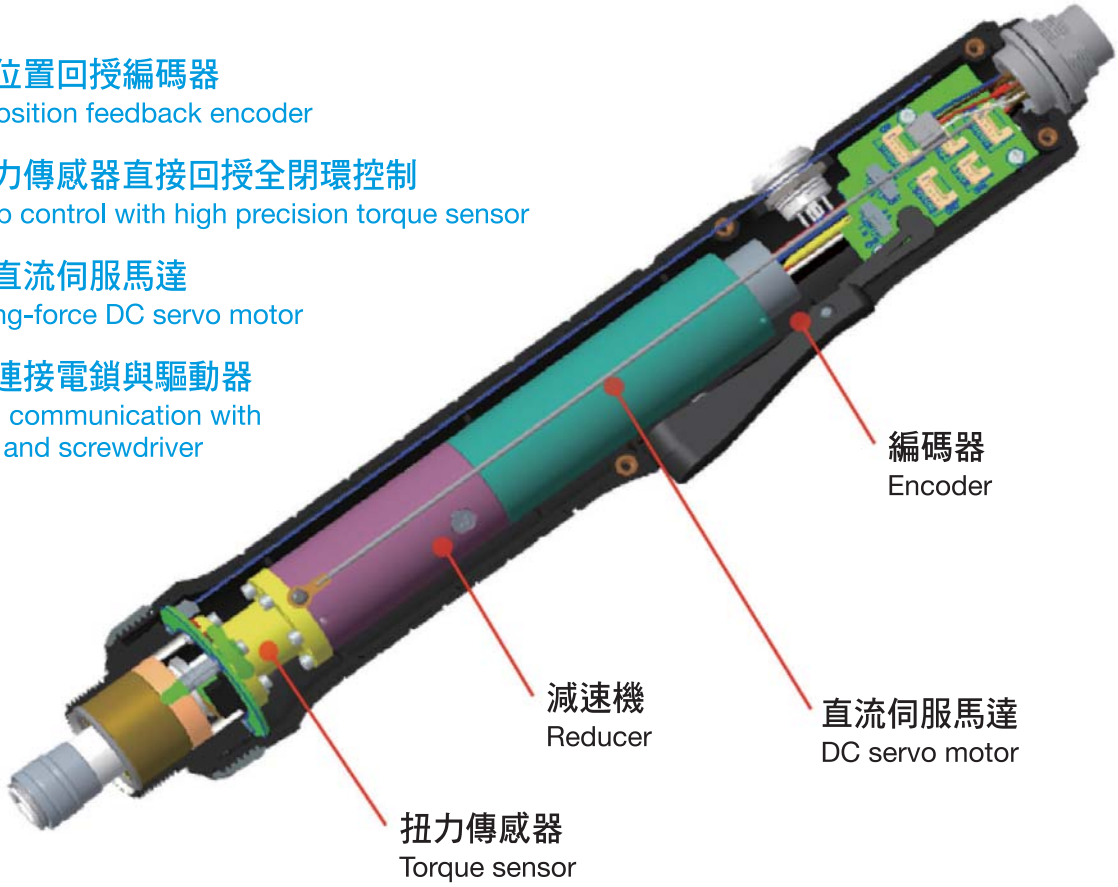


高精度的位置回授編碼器
Precisely position feedback encoder

高精度扭力傳感器直接回授全閉環控制
Closed-loop control with high precision torque sensor

低頓扭矩直流伺服馬達
Low-cogging-force DC servo motor

高速通訊連接電鎖與驅動器
High speed communication with servo drive and screwdriver



ASA伺服螺絲鎖付控制器
ASA Servo Screwdriver Controller

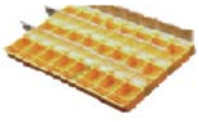


伺服螺絲鎖附控制器
ASA Servo Screwdriver Controller

- 一對二高效能控制器
- 可依情境選擇雙軸同動或雙軸交互作業
- 10.1吋大畫面，可同時或獨立顯示2把伺服螺絲起子的作業結果
- 大容量記憶體，可獨立紀錄200,000筆以上鎖附結果

- One-To-Two High Performance Controller
- Can work with 2 Screwdrivers either simultaneously or interchangeably
- 10.1-inch Large Screen
  Can display either One or Two Servo Screwdriver working results
- Large Memory Capacity
  Can store more than 200,000 records

Work space announcer



Torque Arm



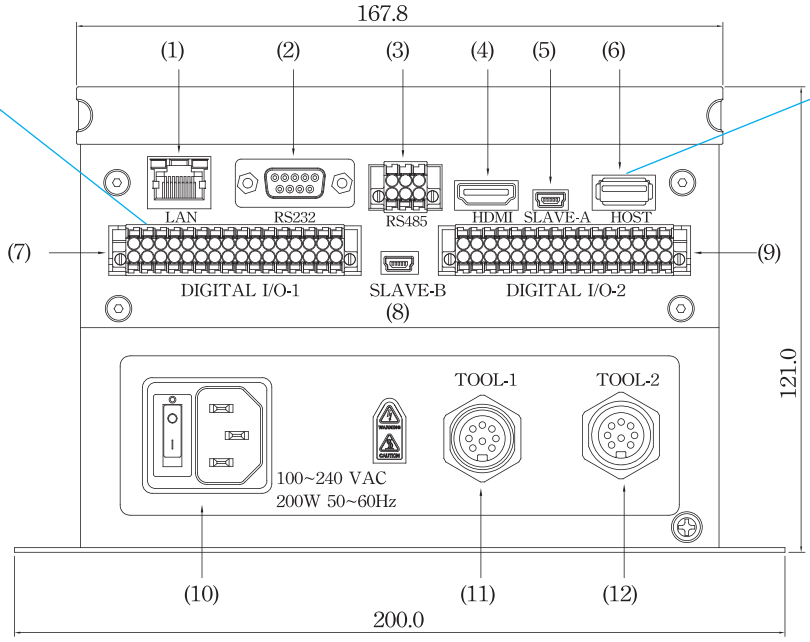
Screw feeder



Bit selector



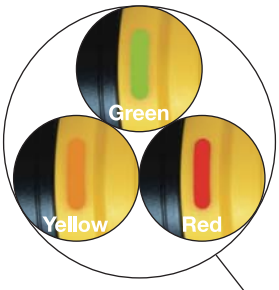




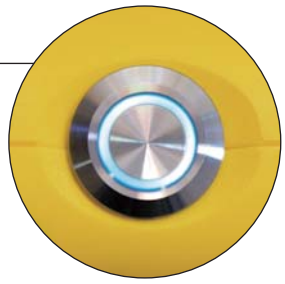
ASA伺服螺絲起子
ASA Servo Screwdriver



壓桿啟動
Lever start



鎖付狀態指示燈
作業人員可輕易判讀鎖付狀況
LED status indicator
Operator can easy to determine the fastening state.



正反轉開關（指示燈）
FWD/REV switch (indicator light)

下壓啟動
Push to Start

ESD 橡膠材質
提升握取舒適度
ESD Rubber grip
Grab comfort improvement .



LED 照明燈
減輕作業人員視力負擔
LED light
Relieving user visual load

ASA伺服螺絲鎖付伺服器
ASA Servo Screwdriver Controller



IT'S VERY WELL MADE IN TAIWAN

伺服螺絲鎖付控制器
Servo Screwdriver Controller

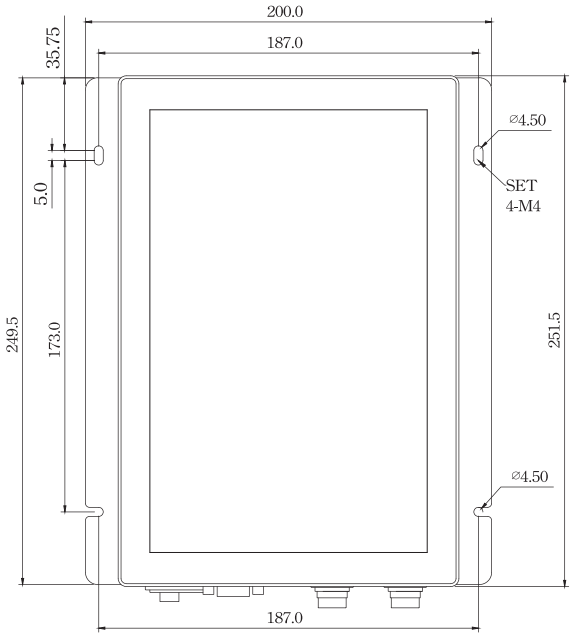


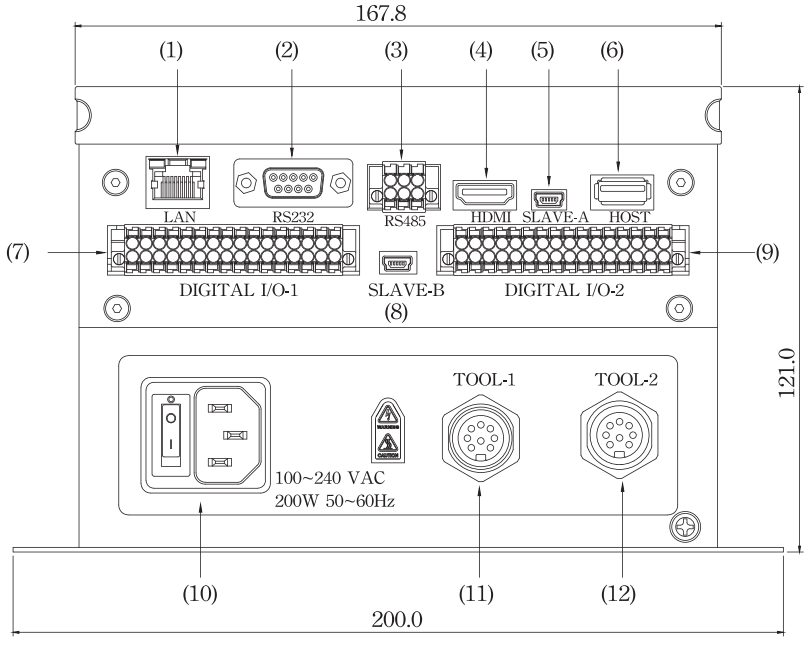
伺服螺絲起子
Servo Screwdriver



控制器 Controller	規格 Specifications	
型號 Model name	ST1-1	ST1-2
輸入電壓 Input voltage	100～240VAC	
DC bus 電壓 DC bus voltage	38 VDC	
額定輸出電流 Rated output current	3.7 Arms	7.4 Arms
額定輸出功率 Rated output power	100W/單軸 (1把) 100W/1-Port (screwdriver)	200W / 雙軸 (2把) 200W/2-Port (screwdrivers)
螢幕尺寸 Screensize	10.1”(觸控　螢幕 touchscreen)	
外觀尺寸 Dimensions(mm)	200 x 252 x 121 (寬width) x (高height) x (深depth)	
重量 Weight	4.06 kg	
安規認證 Approval by	CE, UKCA	

尺寸圖 Dimension





ASA伺服螺絲起子 / 防靜電型
ASA Servo Screwdriver / ESD Type

IT'S VERY WELL MADE IN TAIWAN



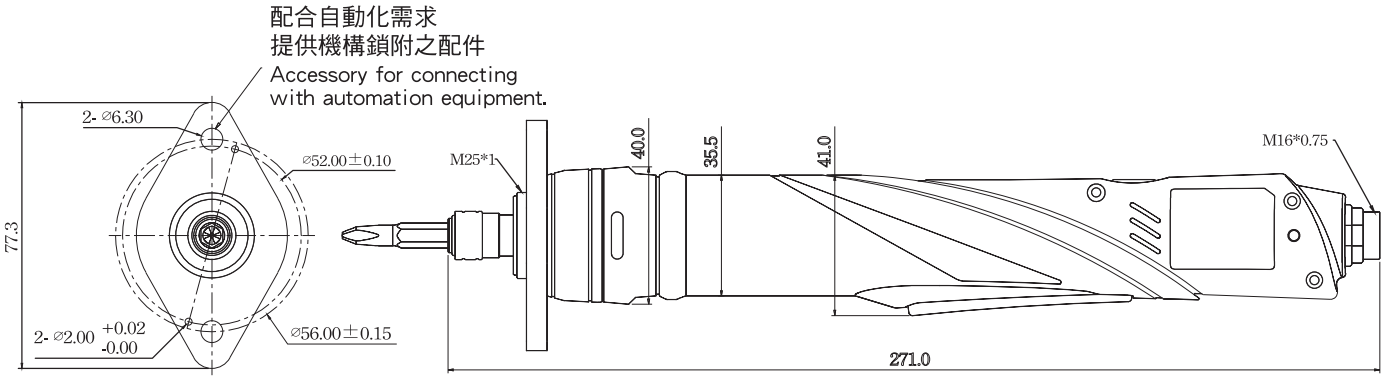
型號 Model name	ST1-12SA ST1-12SB	ST1-30SA ST1-30SB	ST1-50SA ST1-50SB	ST1-75SA
啟動方式 Starting Method	槓桿式 / 下壓式（可任意切換） Lever start / Push to start (switchable)			
輸入電壓 Input voltage	38Vdc			
扭力範圍 Torque range(kgf· cm)	2.4～12	6～30	10～50	15～75
精確度 Precision	±3%			
最高轉速 Max. speed	2000 rpm	1100 rpm	700 rpm	500 rpm
電鎖長度 Length	271 mm			
重量 Weight	480 g			
手握直徑 Handheld O.D. (mm)	34 mm			
起子頭尺寸 Available bit size	5.0mm/6.35mm(1/4") 六角對邊 Hex shank			6.35mm(1/4") 六角對邊 Hex shank
操作溫度 Operating temperature	0°C～40°C			
儲存溫度 Storage temperature	0°C～60°C			
濕度 Humidity	0～90% RH (non-condensing)			
防護等級 IPclass	IP40			

*A表6.35mm(1/4")六角起子頭，B表5mm六角起子頭　*A for 6.35mm(1/4") Hex shank，B for 5mm Hex shank

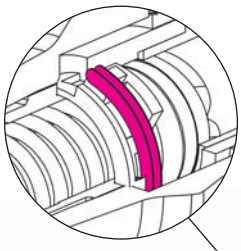
伺服螺絲鎖付系統-週邊設備(選購品) Attachment of Servo Screwdriver(Optional)

名　稱 Description	規　格 Specification
DC電源線-3m DC Cable-3m	2W2140
DC電源線-5m DC Cable-5m	2W2142
DC電源線-10m DC Cable-10m	2W2144
90度彎頭 Right angle head	4A9110
槍型握把 Gun type-grip	4A9317
自動機台轉接座 Screwdriver holder (for EQ)	4V3034

尺寸圖 Dimension

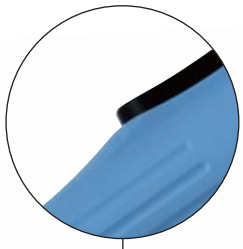


高效能小型無刷馬達電動起子
High efficiency brushless motor low torque electric screwdrivers



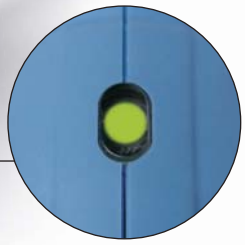
搭配10um黃金煞車開關系統，
壽命可達1000萬次以上。

Adopts 10um gold plating switch to raise the switch life upto 10 million times.



人因工學握柄可輕鬆鎖付

Compact size ergonomics grip design makes easy operation.



創新扭力護套設計

- 螺牙結構使扭力護套能輕鬆的鎖付於起子本體。
- 扭力護套也同樣為扭力調整圈，可輕鬆調整扭力。
- 扭力護套可避免因不當扭力而造成被鎖物的損壞。

Brand new design for torque cover

- The torque cover can easily combined with screwdriver itself by the thread construction.
- The torque cover is also a torque-adjuster, it can easily adjust the torque.
- The torque cover can avoid the fastened object be damaged by improper torque.



扭力提示燈

當鎖付到達扭力時，提示燈會亮起綠燈。
有效降低操作者需人工監測扭力的負擔。

Torque indicator light

When reaching the torque while fastening, the torque indicator light will be shown as green color, which can effectively reduce the burdens of checking the fastening situation for operators.

扭力精度極精準

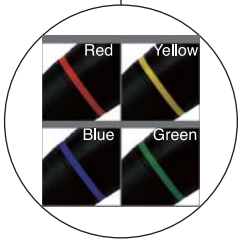
One pulse torque up,
torque accuracy with high precision.

高效能無刷馬達介紹

- 使用高效能無刷馬達，壽命超耐久。
- 無須更換碳刷，有效降低企業支出成本。
- 無碳粉溢出之設計，適用於無塵室環境。

Introduction for high efficiency brushless motor

- Use the high efficiency brushless motor gives unsurpassed durability.
- Adopt the carbon brushless motor that it will reduce the business cost effectively.
- Brushless motor design that is available in the clean room operation.



扭力區分管理

ASA提供您一套獨特、以顏色來管理扭力的系統。
選擇不同顏色配合不同的扭力大小，就能運用在生產線上，並做有效的扭力區分管理。

Color torque control system

ASA provides you a unique color torque control system, using the different colors to distinguish the torque for assembly line.

台灣精品 2000 TAIWAN EXCELLENCE

台灣精品金質獎 TAIWAN EXCELLENCE GOLD AWARD 2000

高效能小型無刷馬達電動起子

High efficiency brushless motor low torque electric screwdrivers

低壓直流馬達驅動型（附電源控制器）

Low voltage DC motor driving (with controller)

可訂製ESD防靜電型

ESD type is available for ordering.

IT'S VERY WELL MADE IN TAIWAN



特點 Feature

- 使用高效能無刷馬達，壽命超耐久。
- 無須更換碳刷，有效降低企業支出成本。
- 無碳粉溢出之設計，適用於無塵室環境。
- 搭配領先群雄的黃金煞車開關系統。（壽命試驗可達1000萬次以上），以大幅降低維修保養費用。
- 無碳粉溢出，降低空氣污染，響應地球環保。

- Use the high efficiency brushless motor gives unsurpassed durability.
- Adopt the carbon brushless motor that it will reduce the business cost effectively.
- Brushless motor design that is available in the clean room operation.
- Adopts excellent gold plating switch that it can raise the contact spot life up to 10 million times and reduce the maintenance cost.
- No any carbon particle flow out not only responses to the earth environment protection but also reduces air pollution.

槓桿式 Lever start type

機種名 Model No.	輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in			機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
BS-100	0.15~1.0	0.13~0.87	APM-202B	100-200	0.7~1.8mm/0.03~0.07in	0.6~1.4mm/0.02~0.05in
BS-100F	0.15~1.0	0.13~0.87	APM-302B AM-30	350-500	0.7~1.8mm/0.03~0.07in	0.6~1.4mm/0.02~0.05in
BS-200	0.3~2.0	0.26~1.7	APM-302B AM-30	700-1000	1.0~2.2mm/0.04~0.09in	1.0~2.0mm/0.04~0.08in
BS-250	0.4~3.0	0.35~2.6	APM-302B AM-30	450-700	1.0~2.6mm/0.04~0.10in	1.0~2.0mm/0.04~0.08in
BS-300	0.5~5.0	0.43~4.3	APM-302B AM-30	700-1000	1.0~2.6mm/0.04~0.10in	1.0~2.3mm/0.04~0.09in
BS-400	1.0~6.0	0.87~5.2	APM-302B AM-30	700-1000	1.4~2.6mm/0.06~0.10in	1.4~2.3mm/0.06~0.09in
BS-450	1.5~10.0	1.3~8.7	APM-302B AM-30	700-1000	2.0~3.0mm/0.08~0.12in	2.0~2.6mm/0.08~0.10in

適用電源控制器 Available controller

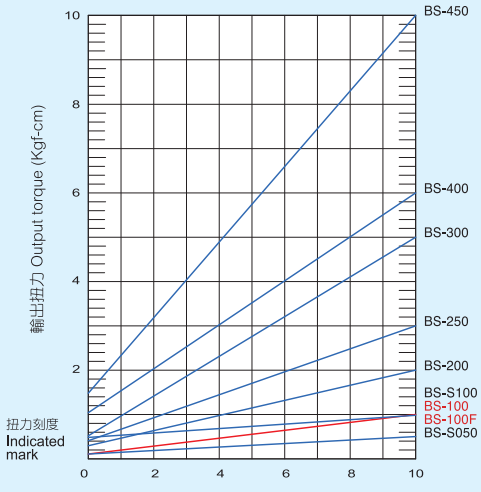
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-202B	100-240V	9-19V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	APM-302B 軟式啓動 (Soft start)	100-240V	20-30V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-30	100-240V	20-30V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

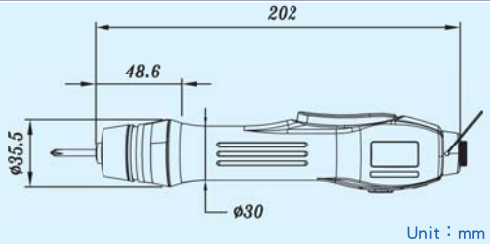
外觀 Outline	名稱 Description	規格 Specification
	彎90°轉接頭 Right angle head	4A9402
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	多功能螺絲專利整理盒 Patented multifunction screw kit box	適用M1.0~M2.4mm螺絲 Available screw M1.0-M2.4mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁 環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	19VDC/30VDC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	300g/0.66lb
長度 Length	202mm/7.95in
握持直徑 Grip diameter	30mm/1.18im
適用起子頭(選購品) Available bit size (optional)	4Ø

輸出扭力曲線表 Torque Curve



槓桿式 Lever start type



高效能中型無刷馬達電動起子

High efficiency brushless motor medium torque electric screwdrivers

低壓直流馬達驅動型（附電源控制器）

Low voltage DC motor driving (with controller)

可訂製ESD防靜電型

ESD type is available for ordering.

IT'S VERY WELL MADE IN TAIWAN



特點 Feature

- 極速 2000 rpm 2年保固。
- 使用高效能無碳刷馬達，壽命超耐久。
- 無須更換碳刷，有效降低企業支出成本。
- 無碳粉溢出之設計，適用於無塵室環境。
- 搭配領先群雄的黃金煞車開關系統。
  （壽命試驗可達1000萬次以上），以大幅降低維修保養費用。
- 無碳粉溢出，降低空氣污染，響應地球環保。

- The highest speed 2000rpm design and offer two years warranty for free repair service.
- Use the high efficiency brushless motor gives unsurpassed durability.
- Adopt the carbon brushless motor that it will reduce the business cost effectively.
- Brushless motor design that is available in the clean room operation.
- Adopt excellent gold plating switch that it can raise the contact spot life up to 10 million times and reduce the maintenance cost.
- No any carbon particle flow out not only responses to the earth environment protection but also reduces air pollution.

槓桿式 Lever start type

機種名 Model No.	輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in			機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
BS-2000	0.3~2.0	0.26~1.7	APM-302B AM-30	700-1000	1.0~2.2mm/0.04~0.09in	1.0~2.0mm/0.04~0.08in
BS-3000	0.5~5.0	0.43~4.3	APM-302B AM-30	700-1000	1.0~2.6mm/0.04~0.10in	1.0~2.3mm/0.04~0.09in
BS-4000 BS-4000F	1.5~12.0	1.30~10.4	APM-302B AM-30	700-1000/1400-2000	1.4~3.0mm/0.06~0.12in	1.4~2.6mm/0.06~0.10in
BS-6000	2.0~16.0	1.7~13.9	APM-302B AM-30	700-1000	2.2~4.2mm/0.09~0.17in	2.0~3.2mm/0.08~0.13in
BS-6500	4.0~20.0	3.5~17.4	APM-302B AM-30	700-1000	2.6~4.0mm/0.10~0.16in	2.3~3.5mm/0.09~0.14in
BS-6800	5.0~25.0	4.3~21.7	APM-302B AM-30	500-750	3.0~5.0mm/0.12~0.20in	2.6~4.0mm/0.10~0.16in

適用電源控制器 Available controller

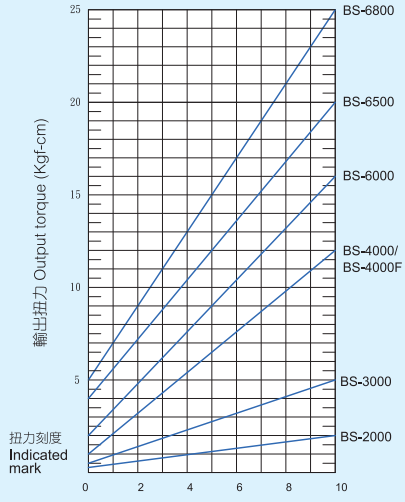
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-302B 軟式啓動 (Soft start)	100-240V	20-30V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-30	100-240V	20-30V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

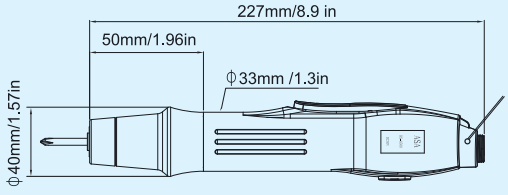
外觀 Outline	名稱 Description	規格 Specification
	彎90°轉接頭 Right angle head	4A9125
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	多功能螺絲專利整理盒 Patented multifunction screw kit box	適用M1.0~M2.4mm螺絲 Available screw M1.0-M2.4mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	20-30VDC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	412g/0.91 lb
長度 Length	227mm/8.9in
握持直徑 Grip diameter	33mm/1.3in
適用起子頭(選購品) Available bit size (optional)	5Ø，6.35(1/4")六角對邊 hex shank

輸出扭力曲線表 Torque Curve



槓桿式 Lever start type



Unit：mm

瑞士航太級馬達介紹
Introduction to Swiss DC motor

IT'S VERY WELL MADE IN TAIWAN

- **瑞士原裝低慣量、低衝擊、低鬆動馬達**
  瑞士專利馬達耗電、衝擊、慣量只有市售馬達1/10。對細小螺絲扭力精準度以及防止螺絲鬆動,特別有效。
- **無碳粉溢出設計馬達適用於3C產業**
  超薄、超輕多功能,為電子產業設計主流，電子產品均內藏IC設計，而一般市售馬達均有碳粉溢出污染。所以一般有碳粉電動起子無法適用於電子無塵環境。

- **Its motor, made and imported from Switzerland, is characterized with low inertia and low impact.**
  Switzerland patented motor, its power consumption, impact and insert momentum are 1/10 of the conventional motors. Very effective for tightening the fine screws with precise torque and loosening free.
- **Its motor does not generate any carbon particle over flow, so its motor is suitable to be used in the 3C industry.**
  The electronic products will become thinner, lightweight and multifunctional; most electronic products have one or more IC components. Other brands of motors on the market are not suitable to be used in the 3C industry because they generate carbon particles.



Pumps and ventilators
Blood pumps
Axial blowers



Optics and precision mechanics
Lens adjustment
Levelling equipment
Beamers



Cash and ticket dispenser
labeling machines
credit card readers



Semi-conductor industry / EDP / telecommunications
SMT fitting machines
Feeders



Measuring and control technology
precision scales
measuring devices

瑞士航太級低慣量、低衝擊馬達電動起子 / 氣吸式電動起子

瑞士馬達保證3年1000萬次
3C產業最佳選用品

IT'S VERY WELL MADE IN TAIWAN

Swiss aviation grade motor, low inertia and low impact electric screwdriver / Vacuum pick up electric screwdrivers

低壓直流馬達驅動型（附電源控制器）
Low voltage DC motor driving (with controller)

可訂製ESD防靜電型
ESD type is available for ordering.



特點 Feature

- **超迷你精準耐用長壽命設計**
  直徑φ26mm全長158mm世界最小體積，重量只有187g、耗電6W，全機六只傳動軸承，徹底降低機械磨耗，更能提高扭力精準度及降低起子頭搖擺度。
- **終生使用設計，一支抵用他牌數支**
  三年1000萬次以上終生耐用性設計，瑞士馬達至少可連續運轉2萬小時(約可使用10年以上)。並搭配長壽命設計可達1000萬次白金煞車開關裝置。
- **本產品可適用於無塵室，並通過SGS無塵室CLASS-10等級測試。**

- **The electric screwdriver is very compact, accurate and durable.**
  Design not only in the most compact body of diameter 26mm, overall length 158mm and weight 187g but the lowest power consumption 6w in the world. The 6 bearing are inbuilt in the hammer casing to reduce the anvil friction and bit vibration and to improve the output torque precision.
- **The electric screwdriver can last through a lifetime; it outlasts several electric screwdrivers of other brand.**
  The everlasting durability is designed with 10 million times in use in three years (The Switzerland patented motor permits continued operation at least 20,000 hours (about 10 years operation). The service life of the contact point withstands 10 million on and off contacts.
- **This product can be used in the clean room. It has passed SGS Clean room Class-10 test.**

槓桿式 Lever start type ・ 快速式 High speed type (S) ・ 氣吸式 Vacuum pick up type (A)

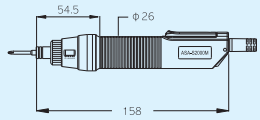
機種名 Model No.		輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)		適用螺絲 Available screw	
		kgf-cm	lbf-in				機械牙徑 Machine screw φ	自攻牙徑 Tapping screw φ
ASA-S1000M	ASA-S1000MA	0.15~1.0	0.13 ~ 0.87	APM-202B APM-302B AM-55 AM-65	150-300 350-500 150-250 350-500		1.0 ~ 1.8mm / 0.04 ~ 0.07in	0.6 ~ 1.4mm / 0.02 ~ 0.05in
ASA-S2000M	ASA-S2000MA	0.3 ~ 2.0	0.26 ~ 1.7	APM-302B AM-65	650-1000		1.0 ~ 2.2mm / 0.04 ~ 0.09in	1.0 ~ 2.0mm / 0.04 ~ 0.08in
ASA-S2500M	ASA-S2500MA	0.4 ~ 3.0	0.35 ~ 2.6	APM-302B AM-65	450-700		1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.0mm / 0.04 ~ 0.08in
ASA-2000M	ASA-2000MS	0.3 ~ 2.0	0.26 ~ 1.7	APM-302B AM-65	450-700	700-1000	1.0 ~ 2.2mm / 0.04 ~ 0.09in	1.0 ~ 2.0mm / 0.04 ~ 0.08in
ASA-2000MA	ASA-2000MSA	0.3 ~ 2.0	0.26 ~ 1.7	APM-302B AM-65	450-700	700-1000	1.0 ~ 2.2mm / 0.04 ~ 0.09in	1.0 ~ 2.0mm / 0.04 ~ 0.08in
ASA-3000M	ASA-3000MS	0.5 ~ 5.0	0.43 ~ 4.3	APM-302B AM-65	400-600	700-1000	1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.3mm / 0.04 ~ 0.09in
ASA-3000MA	ASA-3000MSA	0.5 ~ 5.0	0.43 ~ 4.3	APM-302B AM-65	400-600	700~1000	1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.3mm / 0.04 ~ 0.09in
ASA-4000M	ASA-4000MS	1.0 ~ 6.0	0.87 ~ 5.2	APM-302B AM-65	400-600	700-1000	1.4 ~ 2.6mm / 0.06 ~ 0.10in	1.4 ~ 2.3mm / 0.06 ~ 0.09in
ASA-4000MA	ASA-4000MSA	1.0 ~ 6.0	0.87 ~ 5.2	APM-302B AM-65	400-600	700-1000	1.4 ~ 2.6mm / 0.06 ~ 0.10in.	1.4 ~ 2.3mm / 0.06 ~ 0.09in

適用電源控制器 Available controller

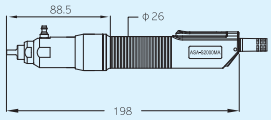
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-202B	100 ~ 240V	9 ~ 19V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	APM-302B 軟式啓動 (Soft start)	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-55	100 ~ 240V	9 ~ 15V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH
	AM-65	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH

槓桿式尺寸圖 Dimension

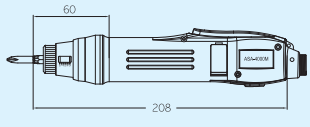
ASA-S1000M, ASA-S2000M, ASA-S2500M



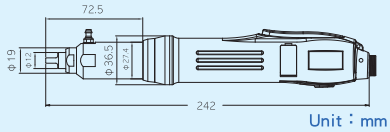
ASA-S1000MA, ASA-S2000MA, ASA-S2500MA



ASA-2000M, ASA-3000M, ASA-4000M



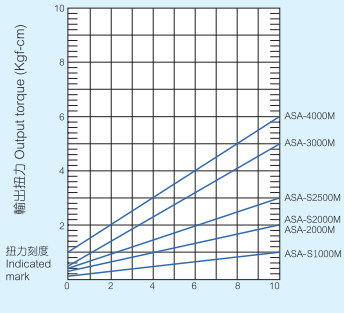
ASA-2000MA, ASA-3000MA, ASA-4000MA



Unit：mm

工作電壓 Power Source	30VDC 最大/MAX
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	迷你型 Mini type 187 / 290g，標準型 Standard type 380 / 430g
長度 Length	迷你型 Mini type 158 / 198mm，標準型 Standard type 208 / 242mm
握持直徑 Grip diameter	迷你型 Mini type 26mm，標準型 Standard type 33.5mm
適用起子頭 (選購品)	φ4，6.35(1/4") 六角對邊 hex shank
Available bit size (optional)	

輸出扭力曲線表 Torque Curve



瑞士馬達電動起子（彎90°轉接頭）
Swiss motor electric screwdrivers (Angle attachment)

超微型彎90°轉接頭（業界唯一獲得Apple認證的產品，並使用於iPhone及iPad生產線）

Ultra-miniature angle attachment (The only one which wins the identification of APPLE Company among all other competitors in business and being applied to IPHONE & IPAD's production line.)



瑞士原裝進口低慣性、低衝擊馬達

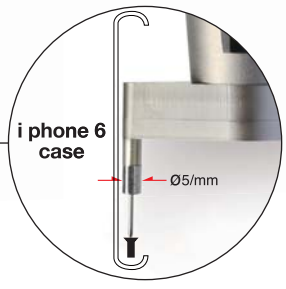
瑞士專利馬達耗電、衝擊、慣量只有市售馬達1/10。
對細小螺絲扭力精準度以及防止螺絲鬆動特別有效。

Its motor, made and imported from Switzerland, is characterized with low inertia and low impact.

Switzerland patented motor, its power consumption, impact and insert momentum are 1/10 of the conventional motors. Very effective for tightening the fine screws with precise torque and loosening free.

搭配10um黃金煞車開關系統，
壽命可達1000萬次以上。

Adopts 10um gold plating switch to raise the switch life upto 10 million times.



創新專利

超微型彎90°轉接頭直徑僅為5mm，適用於精密螺絲鎖付工作。

New Patent

The diameter of the ultra-miniature angle attachment is only 5mm. Suitable for precise screw fastening operations.

好幫手全自動小型電動起子 / 防靜電型

ASA Full-auto shut off low torque electric screwdrivers / ESD type

IT'S VERY WELL MADE IN TAIWAN

低壓直流馬達驅動型（附電源控制器）
Low voltage DC motor driving (with controller)

可訂製ESD防靜電型
ESD type is available for ordering.



特點 Feature

- 符合創、遊、美、人、產品設計潮流，降低操作者的恐懼感。
- 符合女性握持之人因工學要求，提高操作舒適度，降低工作傷害。
- 區塊分離式設計，可做線上維修作業，減少停機待工時間。
- 符合EMC電磁相容標準設計。

- Design in creation, play, beauty, human conception to fit with world trend and be pleased to use.
- Design in ergonomics handle to reduce work fatigue and fit with feminine labor.
- Design in block assembly to easy maintains on line by user.
- Design in conformity EMC standards.

槓桿式 Lever start type ・ 快速式 High speed type (S)

機種名 Model No.		輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)		適用螺絲 Available screw	
		kgf-cm	lbf-in				機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
ASA-2000	ASA-2000S	0.3 ~ 2.0	0.26 ~ 1.7	APM-352B AM-45	450-700	700-1000	1.0 ~ 2.2mm / 0.04 ~ 0.09in	1.0 ~ 2.0mm / 0.04 ~ 0.08in
ASA-3000	ASA-3000S	0.5 ~ 5.0	0.43 ~ 4.3	APM-352B AM-45	450-700	700-1000	1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.3mm / 0.04 ~ 0.09in
ASA-4000	ASA-4000S	1.0 ~ 6.0	0.87 ~ 5.2	APM-352B AM-45	450-700	700-1000	1.4 ~ 2.6mm / 0.06 ~ 0.10in	1.4 ~ 2.3mm / 0.06 ~ 0.09in
ASA-4500	ASA-4500S	1.5 ~ 10.0	1.30 ~ 8.7	APM-352B AM-45	450-700	700-1000	2.0 ~ 3.0mm / 0.08 ~ 0.12in	2.0 ~ 2.6mm / 0.08 ~ 0.10in

適用電源控制器 Available controller

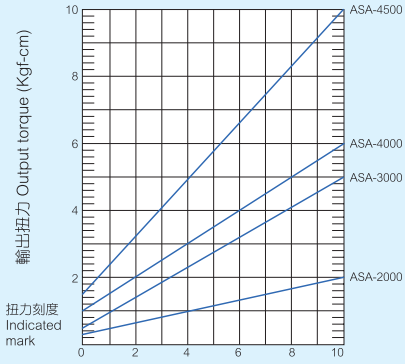
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-352B 軟式啓動 (Soft start)	100 ~ 240V	25 ~ 35V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-45	100 ~ 240V	25 ~ 35V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

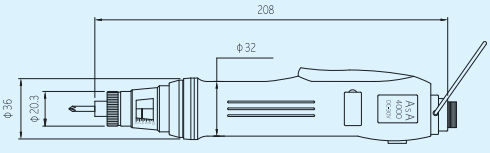
外觀 Outline	名稱 Description	規格 Specification
	彎90°轉接頭 Right angle head	4A9121
	扭力護套 Torque cover	6A5001
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	多功能螺絲專利整理盒 Patented multifunction screw kit box	適用M1.0~M2.4mm螺絲 Available screw M1.0-M2.4mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load: kgs / lbs / 伸縮長 Extend L. SB-1.2: 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0: 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0: 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4: 7 mm / 17.5 mm / 10 mm AM 5: 5 mm / 17.5 mm / 10 mm AM 4: 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	35VDC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	380g / 0.83lb
長度 Length	208mm / 8.2in
握持直徑 Grip diameter	32mm / 1.26in
適用起子頭 (選購品) Available bit size (optional)	ϕ4，6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve



槓桿式 Lever start type



Unit：mm

好幫手全自動中型電動起子 / 防靜電型

ASA Full-auto shut off medium torque electric screwdrivers / ESD type

IT'S VERY WELL MADE IN TAIWAN

低壓直流馬達驅動型（附電源控制器）
Low voltage DC motor driving (with controller)

可訂製ESD防靜電型
ESD type is available for ordering.



特點 Feature

- 符合人因工學及蛋形防滑設計，外形輕便。
- 低噪音，高效率。
- 高精準，大範圍扭力輸出。
- 扭力到達，離合器自動準確跳脫。

- Ergonomics and anti-slip egg-shaped design ensures operator comfort.
- Low noise high efficiency.
- High accuracy and wide large torque range.
- Excellent torque control-Ensure accuracy in fastening with precision designed automatic shut-off clutch.

槓桿式 Lever start type ・ 下壓式 Push to start type (PS)

機種名 Model No.	輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in			機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
ASA-6000	1.5 ~ 12.0	1.30 ~ 10.4	APM-302C AM-85	650-1150	2.0 ~ 3.0mm / 0.08 ~ 0.12in	2.0 ~ 2.6mm / 0.08 ~ 0.10in
ASA-6000(PS)	1.5 ~ 12.0	1.30 ~ 10.4	APM-302C AM-85	600-1000	2.0 ~ 3.0mm / 0.08 ~ 0.12in	2.0 ~ 2.6mm / 0.08 ~ 0.10in
ASA-6500	4.0 ~ 20.0	3.5 ~ 17.4	APM-302C AM-85	550-850	2.6 ~ 4.0mm / 0.10 ~ 0.16in	2.3 ~ 3.5mm / 0.09 ~ 0.14in
ASA-6500(PS)	4.0 ~ 20.0	3.5 ~ 17.4	APM-302C AM-85	550-850	2.6 ~ 4.0mm / 0.10 ~ 0.16in	2.3 ~ 3.5mm / 0.09 ~ 0.14in
ASA-6800	5.0 ~ 25.0	4.3 ~ 21.7	APM-302C AM-85	450-700	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
ASA-6800(PS)	5.0 ~ 25.0	4.3 ~ 21.7	APM-302C AM-85	450-700	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in

適用電源控制器 Available controller

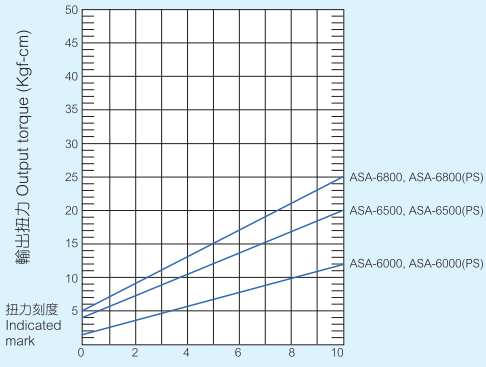
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-302C 軟式啓動 (Soft start)	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-85	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

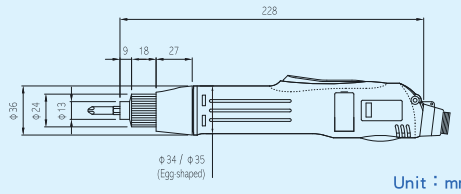
外觀 Outline	名稱 Description	規格 Specification
	彎90°轉接頭 Right angle head	4A9123 (槓桿式系列適用 lever start type series available)
	扭力護套 Torque cover	4H2053 (槓桿式系列適用 lever start series available) 6H1047 (下壓式系列適用 Push to start series available)
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load: kgs / lbs / 伸縮長 Extend L. SB-1.2: 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0: 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0: 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4: 7 mm / 17.5 mm / 10 mm AM 5: 5 mm / 17.5 mm / 10 mm AM 4: 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	30VDC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	490g / 1.1lb　　535g / 1.18lb(PS)
長度 Length	228mm / 9.0in　　237mm / 9.3in(PS)
握持直徑 Grip diameter	34mm / 1.34in　　33mm / 1.3in(PS)
適用起子頭 (選購品) Available bit size (optional)	ϕ5，6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve

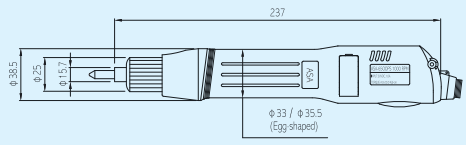


槓桿式 Lever start type



Unit：mm

下壓式 Push to start type (PS)



Unit：mm

好幫手全自動大型電動起子 / 防靜電型

ASA Full-auto shut off high torque electric screwdrivers / ESD type

IT'S VERY WELL MADE IN TAIWAN

低壓直流馬達驅動型（附電源控制器）
Low voltage DC motor driving (with controller)

可訂製ESD防靜電型
ESD type is available for ordering.



特點 Feature

- 高精準，廣範圍大扭力輸出。
- 低壓直流馬達驅動，安全又舒適。
- 外部碳刷，更換容易。
- 區塊分離式設計，可做線上維修作業，減少停機待工時間。
- 符合EMC電磁相容標準設計。

- High accuracy and wide large torque range.
- Low DC voltage motor enable safe and smooth operation.
- Easy carbon brush replacement.
- Design in block assembly to easy maintains on line by user.
- Design in conformity EMC standards.

槓桿式 Lever start type ・ 下壓式 Push to start type (PS)

機種名 Model No.	輸出扭力範圍 Torque range		適用電源控制器 Available controller	無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in			機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
ASA-7500	7.0 ~ 30.0	6.1 ~ 26.0	APM-302C AM-85	700-1000	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
ASA-7500(PS)	7.0 ~ 30.0	6.1 ~ 26.0	APM-302C AM-85	700-1000	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
ASA-8500	12.0 ~ 40.0	10.4 ~ 34.7	APL-301B	650-750	3.5 ~ 5.5mm / 0.14 ~ 0.22in	3.0 ~ 4.5mm / 0.12 ~ 0.18in
ASA-8500(PS)	12.0 ~ 40.0	10.4 ~ 34.7	APL-301B	650-750	3.5 ~ 5.5mm / 0.14 ~ 0.22in	3.0 ~ 4.5mm / 0.12 ~ 0.18in
ASA-9000	20.0 ~ 50.0	17.3 ~ 43.4	APL-301B	450-550	4.0 ~ 6.0mm / 0.16 ~ 0.24in	3.5 ~ 5.0mm / 0.14 ~ 0.20in
ASA-9000(PS)	20.0 ~ 50.0	17.3 ~ 43.4	APL-301B	450-550	4.0 ~ 6.0mm / 0.16 ~ 0.24in	3.5 ~ 5.0mm / 0.14 ~ 0.20in

適用電源控制器 Available controller

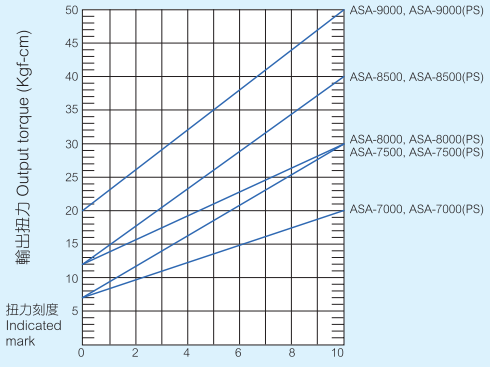
外觀 Outline	機種名 Model No.	工作電壓(AC) Operating vol.	輸出電壓(DC) Output vol.	體積(mm) Dimension	重量(g) Weight	可操作起子數 Drivable	安規認可 Approval by
	APM-302C 軟式啓動 (Soft start)	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X46	380	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH KC,FCC,UKCA
	AM-85	100 ~ 240V	20 ~ 30V 可調式 (Adjustable)	172X84X61	450	1 screwdriver	CB,CE, UL(CUL), ROHS,REACH
	APL-301B	100 ~ 240V	25 ~ 30V 可調式 (Adjustable)	270X130X66	1100	1 screwdriver	CB,CE, ROHS,REACH

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

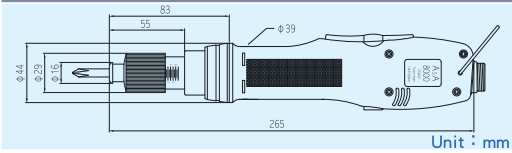
外觀 Outline	名稱 Description	規格 Specification
	彎90°轉接頭 Right angle head	4A9122 (槓桿式系列適用 lever start type series available)
	扭力護套 Torque cover	4H2052 4H2055 (ASA-8500PS / 9000PS)
	槍型握把 Gun type-grip	4A9311
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L. SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m

工作電壓 Power Source	30VDC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	670g / 1.47lb　　740g / 1.6lb(PS)
長度 Length	265mm / 10.4in　　269mm / 10.6in(PS)
握持直徑 Grip diameter	39mm / 1.54in
適用起子頭 (選購品)	ϕ5，5.0mm 六角對邊 hex shank
Available bit size (optional)	6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve

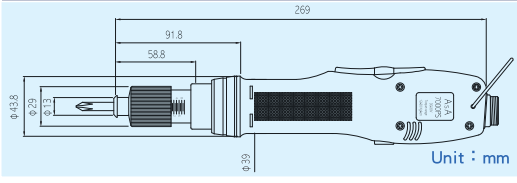


槓桿式 Lever start type



Unit：mm

下壓式 Push to start type (PS)　(ASA-8500PS only)



Unit：mm

好幫手全自動中型碟煞式電動起子

ASA Full-auto disk-brake shut off medium torque electric screwdrivers

IT'S VERY WELL MADE IN TAIWAN

高壓直流馬達驅動型（直接插入市電）
High voltage DC motor driving (controllerless)

可訂製ESD防靜電型
ESD type is available for ordering.



特點 Feature

- 符合人因工學及蛋形防滑設計，外形輕便。
- 碳刷耗量自動警示照明設計。
- 世界專利碟剎式剎車設計，可降低因剎車帶來火花產生高溫及破壞電子零件的維修費用。
- 直接插入市電即可操作。

- Ergonomics and anti-slip egg-shaped design ensures operator comfort.
- Light warns when carbon brush needs replacement.
- Internationally patented disk brake design to prevent the sparks caused by the motor abruptly stop with reverse voltage that it will damage electronic components and led to high repair costs.
- Direct plug-in type.

下壓式 Push to start type (PS) ・ 快速式 High speed type (S)

機種名 Model No.	輸出扭力範圍 Torque range		無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in		機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
ASC-3681	2.2 ~ 12.0	1.9 ~ 10.4	950	2.0 ~ 3.0mm / 0.08 ~ 0.12in	2.0 ~ 2.6mm / 0.08 ~ 0.10in
ASC-3682	2.2 ~ 12.0	1.9 ~ 10.4	950	2.0 ~ 3.0mm / 0.08 ~ 0.12in	2.0 ~ 2.6mm / 0.08 ~ 0.10in
ASC-5681	4.0 ~ 18.0	3.5 ~ 15.6	1000	2.6 ~ 4.0mm / 0.10 ~ 0.16in	2.3 ~ 3.5mm / 0.09 ~ 0.14in
ASC-5682	4.0 ~ 18.0	3.5 ~ 15.6	1000	2.6 ~ 4.0mm / 0.10 ~ 0.16in	2.3 ~ 3.5mm / 0.09 ~ 0.14in
ASC-6681	8.0 ~ 25.0	6.9 ~ 21.7	650	3.0 ~ 4.5mm / 0.12 ~ 0.18in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
ASC-6682	8.0 ~ 25.0	6.9 ~ 21.7	650	3.0 ~ 4.5mm / 0.12 ~ 0.18in	2.6 ~ 4.0mm / 0.10 ~ 0.16in

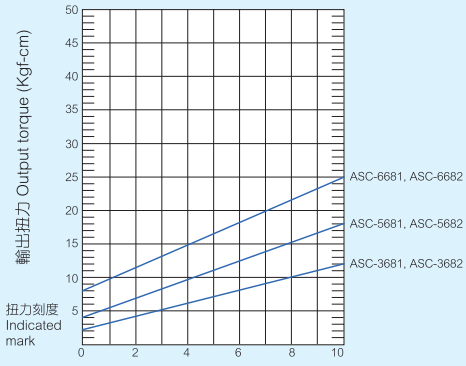
＊ 備註：機種名最後一碼 (1)表115VAC (2)表230VAC
Remark: Last No. of model name denotes VAC "1"=115VAC, "2"=230VAC

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

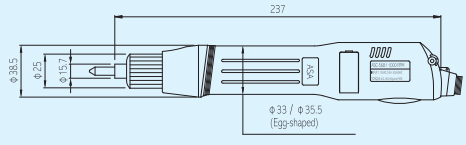
外觀 Outline	名稱 Description	規格 Specification
	扭力護套 Torque cover	6H1047
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L. SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	115 or 230VAC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	535g / 1.18lb
長度 Length	237mm / 9.3in
握持直徑 Grip diameter	33mm / 1.3in
適用起子頭 (選購品)	ϕ5，5.0mm 六角對邊 hex shank
Available bit size (optional)	6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve



下壓式 Push to start type (PS)



Unit：mm

好幫手全自動大型碟煞式電動起子

ASA Full-auto disk-brake shut off high torque electric screwdrivers

高壓直流馬達驅動型（直接插入市電）

High voltage DC motor driving (controllerless)

IT'S VERY WELL MADE IN TAIWAN



特點 Feature

- 高精準及超大扭力範圍輸出。
- 世界專利碟剎式剎車設計，可降低因剎車帶來火花產生高溫及破壞電子零件的維修費用。
- 直接插入市電即可操作。

- High accuracy and wide large torque range.
- Internationally patented disk brake design to prevent the sparks caused by the motor abruptly stop with reverse voltage that it will damage electronic components and led to high repair costs.
- Direct plug-in type.

下壓式 Push to start type (PS)

機種名 Model No.	輸出扭力範圍 Torque range		無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in		機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
AD-5681	8.0 ~ 25.0	6.9 ~ 21.7	750	3.0 ~ 4.5mm / 0.12 ~ 0.18in	3.0 ~ 4.0mm / 0.12 ~ 0.16in
AD-5682	8.0 ~ 25.0	6.9 ~ 21.7	750	3.0 ~ 4.5mm / 0.12 ~ 0.18in	3.0 ~ 4.0mm / 0.12 ~ 0.16in
AD-7681	10.0 ~ 30.0	8.7 ~ 26.0	750	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
AD-7682	10.0 ~ 30.0	8.7 ~ 26.0	750	3.0 ~ 5.0mm / 0.12 ~ 0.20in	2.6 ~ 4.0mm / 0.10 ~ 0.16in
AD-8681	20.0 ~ 50.0	17.3 ~ 43.4	500	4.0 ~ 6.0mm / 0.16 ~ 0.24in	3.5 ~ 5.0mm / 0.14 ~ 0.20in
AD-8682	20.0 ~ 50.0	17.3 ~ 43.4	500	4.0 ~ 6.0mm / 0.16 ~ 0.24in	3.5 ~ 5.0mm / 0.14 ~ 0.20in

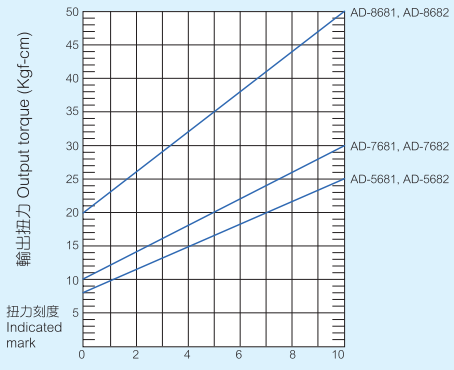
＊ 備註：機種名最後一碼 (1)表115VAC (2)表230VAC
Remark: Last No. of model name denotes VAC "1"=115VAC, "2"=230VAC

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

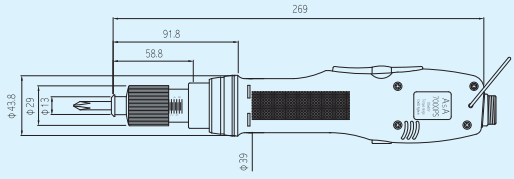
外觀 Outline	名稱 Description	規格 Specification
	扭力護套 Torque cover	4H2055
	槍型握把 Gun type-grip	4A9311
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L. SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁 環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

工作電壓 Power Source	115 or 230VAC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	740g / 1.6lb
長度 Length	269mm / 10.6in
握持直徑 Grip diameter	39mm / 1.54in
適用起子頭 (選購品)	ϕ5，5.0mm 六角對邊 hex shank
Available bit size (optional)	6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve



下壓式 Push to start type (PS)



Unit：mm

好幫手半自動電動起子

ASA Semi-auto shut off electric screwdrivers

高壓直流馬達驅動型（直接插入市電）

High voltage DC motor driving (controllerless)

IT'S VERY WELL MADE IN TAIWAN



特點 Feature

- 符合人因工學及蛋形防滑設計，外形輕便。
- 碳刷耗量自動警示照明設計。
- 低價格，大範圍扭力輸出。
- 直接插入市電即可操作。

- Ergonomics and anti-slip egg-shaped design ensures operator comfort.
- Light warns when carbon brush needs replacement.
- Low cost and large torque range.
- Direct plug-in type.

槓桿式 Lever start type

機種名 Model No.	輸出扭力範圍 Torque range		無載轉速(±10%) No Load Speed (rpm)	適用螺絲 Available screw	
	kgf-cm	lbf-in		機械牙徑 Machine screw ϕ	自攻牙徑 Tapping screw ϕ
AS-1631	0.2 ~ 2.0	0.17 ~ 1.7	1000	1.0 ~ 2.0mm / 0.04 ~ 0.08in	1.0 ~ 1.7mm / 0.04 ~ 0.07in
AS-1632	0.2 ~ 2.0	0.17 ~ 1.7	1000	1.0 ~ 2.0mm / 0.04 ~ 0.08in	1.0 ~ 1.7mm / 0.04 ~ 0.07in
AS-2631	0.5 ~ 7.0	0.43 ~ 6.1	1000	1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.3mm / 0.04 ~ 0.09in
AS-2632	0.5 ~ 7.0	0.43 ~ 6.1	1000	1.0 ~ 2.6mm / 0.04 ~ 0.10in	1.0 ~ 2.3mm / 0.04 ~ 0.09in
AS-3631	1.0 ~ 12.0	0.9 ~ 10.4	1000	1.4 ~ 3.0mm / 0.06 ~ 0.12in	1.4 ~ 2.6mm / 0.06 ~ 0.10in
AS-3632	1.0 ~ 12.0	0.9 ~ 10.4	1000	1.4 ~ 3.0mm / 0.06 ~ 0.12in	1.4 ~ 2.6mm / 0.06 ~ 0.10in
AS-4631	2.0 ~ 18.0	1.7 ~ 15.6	1000	2.0 ~ 4.0mm / 0.08 ~ 0.16in	2.0 ~ 3.0mm / 0.08 ~ 0.12in
AS-4632	2.0 ~ 18.0	1.7 ~ 15.6	1000	2.0 ~ 4.0mm / 0.08 ~ 0.16in	2.0 ~ 3.0mm / 0.08 ~ 0.12in
AS-6631	5.0 ~ 25.0	4.3 ~ 21.7	1000	2.6 ~ 5.0mm / 0.10 ~ 0.20in	2.3 ~ 4.0mm / 0.09 ~ 0.16in
AS-6632	5.0 ~ 25.0	4.3 ~ 21.7	1000	2.6 ~ 5.0mm / 0.10 ~ 0.20in	2.3 ~ 4.0mm / 0.09 ~ 0.16in

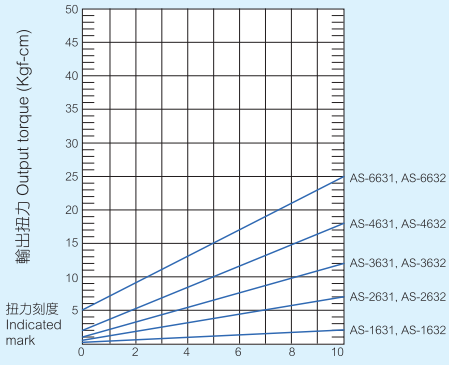
＊ 備註：機種名最後一碼 (1)表115VAC (2)表230VAC
Remark: Last No. of model name denotes VAC "1"=115VAC, "2"=230VAC

電動起子週邊設備 (選購品) Attachment of electric screwdriver (Optional)

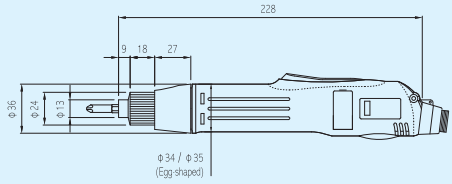
外觀 Outline	名稱 Description	規格 Specification
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	多功能螺絲專利整理盒 Patented multifunction screw kit box	適用M1.0~M2.4mm螺絲 Available screw M1.0-M2.4mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load: kgs, lbs / 伸縮長 Extend L. SB-1.2: 0.5-1.2 kgs, 1.1-2.6 lbs, 1.6 m SB-2.0: 1.0-2.0 kgs, 2.2-4.4 lbs, 1.6 m SB-3.0: 2.0-3.0 kgs, 4.4-6.6 lbs, 1.6 m
	磁 環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4: 7 mm, 17.5 mm, 10 mm AM 5: 5 mm, 17.5 mm, 10 mm AM 4: 4 mm, 17.5 mm, 10 mm

工作電壓 Power Source	115 or 230VAC
扭力精度 Torque Accuracy	極精準 High precision
扭力調整 Torque Setting	無段式 Stepless
重量 Weight	400g / 0.88lb for AS-1631, 1632 only ・ 480g / 1.01lb
長度 Length	228mm / 9.0in
握持直徑 Grip diameter	34mm / 1.34in
適用起子頭 (選購品)	ϕ4 for AS-1631, 1632, 2631, 2632 only
Available bit size (optional)	ϕ5 / 5.0mm 六角對邊 hex shank
	6.35(1/4") 六角對邊 hex shank

輸出扭力曲線表 Torque Curve



槓桿式 Lever start type



Unit：mm

好幫手 T 系列全自動氣動起子外觀功能特性圖

Appearance of ASA T series full-auto shut off pneumatic screwdrivers

IT'S VERY WELL MADE IN TAIWAN

ASA向來致力於電動、氣動工具的設計製造，以操作者的角度規劃產品，以經營者的立場考慮工具應有的效率，更以精確、環保、科技、品質作為規範。基於這些理念與目標，我們製作出的產品擁有多項專利，並榮獲多項大獎。優良的電動、氣動式工具，除了能提昇工作效率，更能提高工作品質。

ASA氣動式工具擁有四大特色：

精準： ASA提供專利離合器，扭力重覆精度±3%，提供您裝配最佳品質保證。

經濟： 馬達葉片及內部結構獲得多項專利，造就超大扭力範圍，馬達壽命更長，一支可抵多支使用的效益。

美觀： 秉持人本為出發點，結合美術、人因工學及機械工程所設計而成，外觀專業並具美感。

科技： 特殊機械結構及專利特殊馬達設計，達到低噪音、低震動、高精確度的境界。

ASA is engaging the design and manufacture of electric and pneumatic screwdrivers. From the use's point of view to plan the product map. From the owner's point of view to calculate the efficiency of tool. Furthermore, base on accuracy, environment, technology and quality, ASA owns several patents and awards. An excellent pneumatic screwdriver tool can increase not only efficiency but the quality.

ASA Pneumatic screwdriver has following four features:

Accuracy: ASA provide patent clutch with ±3% accuracy of torque, assure the best quality.

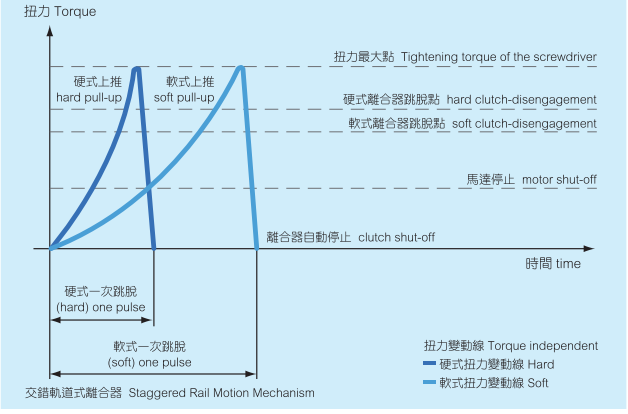
Economic: Wide-ranging torque with many patent and longer life cycle of motor.

Delicacy: Combination of art, ergonomics and mechanical design.

Technology: Special mechanical structure and patent motor give you low noise, low vibration and high accuracy.

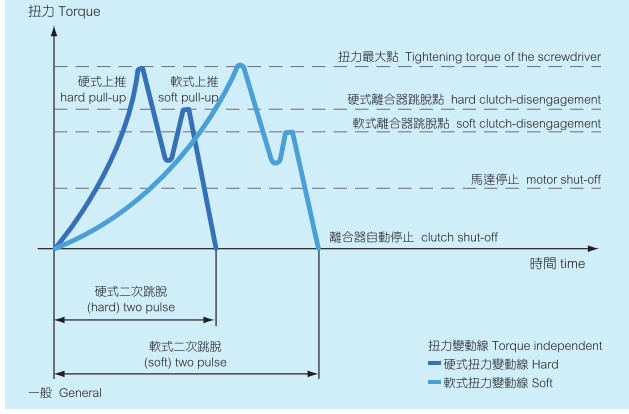


專利SRM扭力控制系統 SRM Clutch Control System



專利SRM扭力控制系統(自動停止型)，離合器跳脫僅一次，振動值低於2.5ms²，扭力誤差小於±3%。
We recommend to use ASA pneumatic screwdrivers with SRM(Staggered Rail Motion) mechanism one pulse clutch torque control system (with immediate automatic shut-off) which has a vibration level of less than 2.5ms² and torque accuracy within ±3%.

一般扭力控制系統 General Clutch Control System

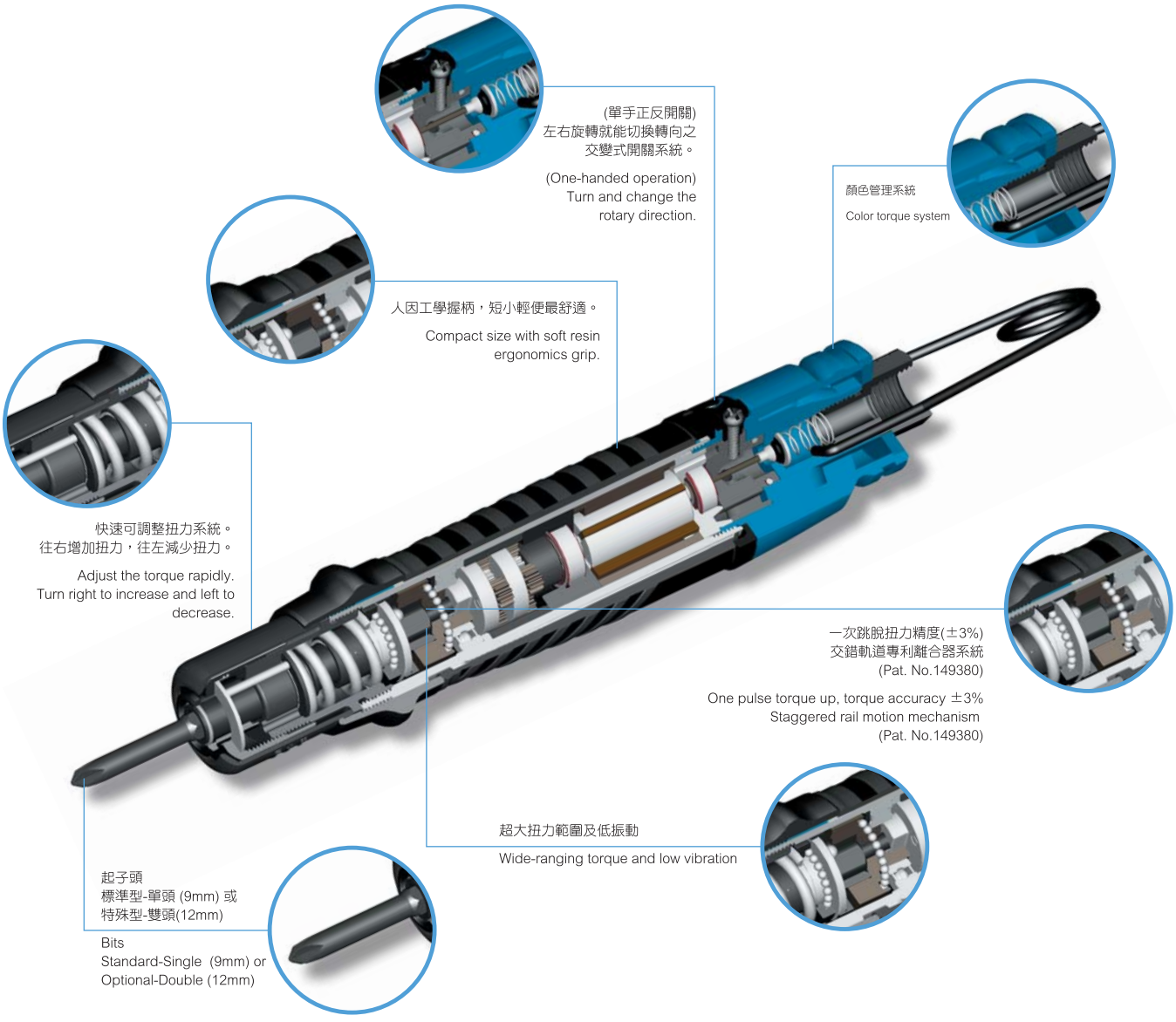


一般型起子離合器跳脫需2~3次，振動值大於2.5ms²，因此扭力誤差也大。
Any general pneumatic screwdrivers which uses two or three "pulse clutch" torque control (and similar) generate vibrations over 2.5ms² and a bad torque accuracy.

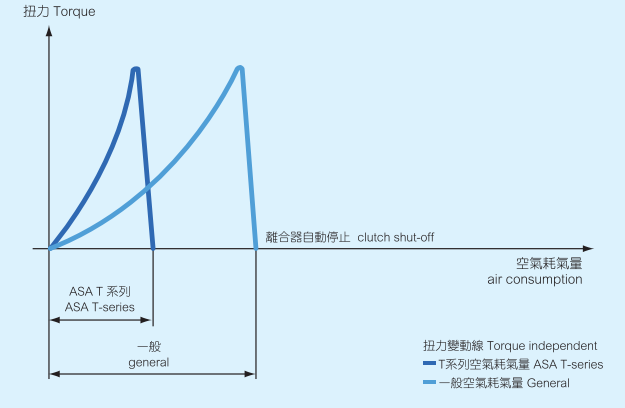
好幫手 T 系列全自動氣動起子特性分解圖

Characteristic analysis of ASA T series full-auto shut off pneumatic screwdrivers

IT'S VERY WELL MADE IN TAIWAN

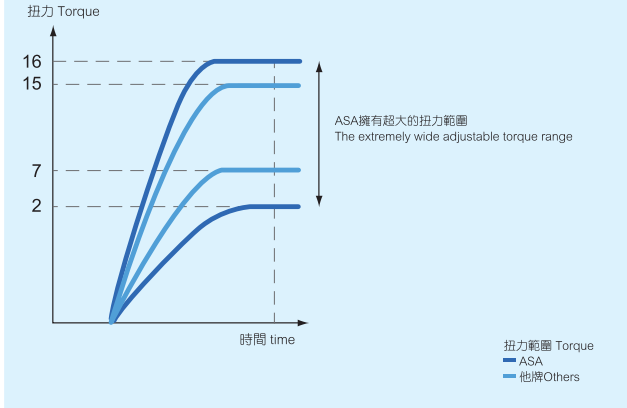


馬達比較圖 Comparison of Motor



使用ASA的交變開關馬達會比一般的氣動馬達多出20~40%的馬力及扭力，它可以提供您擁有更輕、小、短的舒適感。
The new T-series (alternation motion mechanism) air motor can supply 20~40% more power output than others. They are characterized by extremely small dimension and low weight low overall length.

扭力範圍示意圖 Range of Torque



使用專利ASA離合器比一般的離合器更寬大的扭力範圍。
* 以ASA-T30機型為例
More wider range of torque when patent SRM(Staggered Rail Motion) mechanism used.
* Ex. ASA-T30 is shown.

好幫手 T 系列全自動槓桿式氣動起子

ASA T series full-auto shut off lever start pneumatic screwdrivers

IT'S VERY WELL

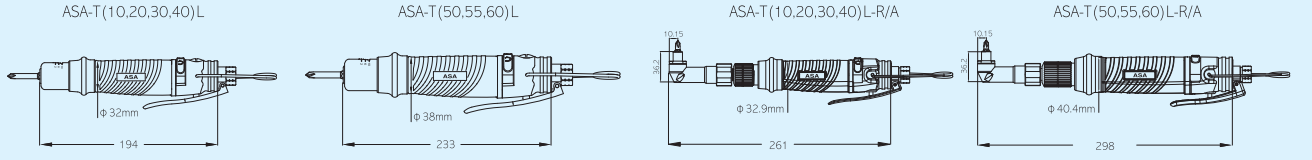


槓桿式 Lever start type (L)

起子機型 Model		空壓管內徑及壓力 Air hose bore		空氣耗氣量 Air consumption	扭力範圍 Torque range		精度 Accuracy	無負荷回轉速 No Load Speed (rpm)	可鎖付螺絲脛部 φ 徑 Available screw shank (mm)	
標準型 Standard	90° 彎頭型 Right angle	進氣 6kg/cm² Inlet. mm	排氣 Ext. mm	m³/min	kgf-cm	lbf-in	%		機械螺絲 Machine Screw φ	自攻螺絲 Tapping Screw φ
ASA-T10LB	ASA-T10LB-R/A	5.0	6.35	0.5	0.5 ~ 2.0	0.4 ~ 1.7	±3	1000	1.0 ~ 2.2	1.0 ~ 1.7
ASA-T20LB	ASA-T20LB-R/A	5.0	6.35	0.5	1.0 ~ 8.0	0.9 ~ 6.9	±3	1000	1.7 ~ 3.3	1.3 ~ 2.7
ASA-T30LB	ASA-T30LB-R/A	5.0	6.35	0.5	2.0 ~ 16.0	1.7 ~ 13.9	±3	1800	2.2 ~ 4.2	1.7 ~ 3.2
ASA-T40LB	ASA-T40LB-R/A	5.0	6.35	0.5	5.0 ~ 30.0	4.3 ~ 26.0	±3	1000	2.6 ~ 5.0	2.3 ~ 4.0
ASA-T50LB	ASA-T50LB-R/A	8.0	9.5	0.65	7.0 ~ 50.0	6.0 ~ 43.4	±3	1400	2.9 ~ 6.0	2.6 ~ 4.9
ASA-T55LB	ASA-T55LB-R/A	8.0	9.5	0.65	7.0 ~ 65.0	6.0 ~ 56.4	±3	1000	2.9 ~ 6.4	2.6 ~ 5.4
ASA-T60LB	ASA-T60LB-R/A	8.0	9.5	0.65	15.0 ~ 95.0	13.0 ~ 82.5	±3	550	4.1 ~ 7.0	3.3 ~ 6.0

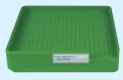
＊ B表1/4"六角起子頭，A表5mm六角起子頭　　＊ B for 1/4" Hex. bit，A for 5mm Hex. bit

槓桿式尺寸圖 Dimension



Unit：mm

氣動起子周邊設備 (選購品) Attachment of pneumatic screwdriver (Optional)

外觀 Outline	名稱 Description	規格 Specification
	AT-1050 可調式螺絲整列機 AT-1050 Adjustable screw feeder	適用M2.0~M5.0mm螺絲 Available screw M1.0-M5.0mm
	多功能螺絲專利整理盒 Patented multifunction screw kit box	適用M1.0~M2.4mm螺絲 Available screw M1.0-M2.4mm
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3.0 / 2.0-3.0 / 4.4-6.6 / 1.6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

扭力區分管理 Color torque control system

ASA提供你一套最新獨特的扭力管理方法，它利用顏色來管理扭力的差異，作為生產線扭力起子管理的目的。它適用所有T系列的工具，只要選擇不同顏色配合不同的扭力大小，就能運用在你的生產線，並做好有效扭力區分管理。

The ASA color torque control system gives you an easily visible torque marking system at a glance for all the T series tools. Choice the color for each torque level used on you assembly line.

綠色 Green	黃色 Yellow	藍色 Blue	紅色 Red
			

好幫手 T 系列全自動下壓式氣動起子

ASA T series full-auto shut off push to start pneumatic screwdrivers



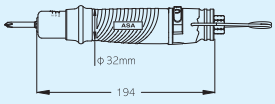
下壓式 Push to start type (P)

起子機型 Model		空壓管內徑及壓力 Air hose bore		空氣耗氣量 Air consumption	扭力範圍 Torque range		精度 Accuracy	無負荷回轉速 No Load Speed (rpm)	可鎖付螺絲脛部 φ 徑 Available screw shank (mm)	
標準型 Standard	槍型 Pistol Grip	進氣 6kg/cm² Inlet. mm	排氣 Ext. mm	m³/min	kgf-cm	lbf-in	%		機械螺絲 Machine Screw φ	自攻螺絲 Tapping Screw φ
ASA-T10PB	ASA-T10PB-P/G	5.0	6.35	0.5	0.5 ~ 2.0	0.4 ~ 1.7	±3	1000	1.0 ~ 2.2	1.0 ~ 1.7
ASA-T20PB	ASA-T20PB-P/G	5.0	6.35	0.5	1.0 ~ 8.0	0.9 ~ 6.9	±3	1000	1.7 ~ 3.3	1.3 ~ 2.7
ASA-T30PB	ASA-T30PB-P/G	5.0	6.35	0.5	2.0 ~ 16.0	1.7 ~ 13.9	±3	1800	2.2 ~ 4.2	1.7 ~ 3.2
ASA-T40PB	ASA-T40PB-P/G	5.0	6.35	0.5	5.0 ~ 30.0	4.3 ~ 26.0	±3	1000	2.6 ~ 5.0	2.3 ~ 4.0
ASA-T50PB	ASA-T50PB-P/G	8.0	9.5	0.65	7.0 ~ 50.0	6.0 ~ 43.4	±3	1400	2.9 ~ 6.0	2.6 ~ 4.9
ASA-T55PB	ASA-T55PB-P/G	8.0	9.5	0.65	7.0 ~ 65.0	6.0 ~ 56.4	±3	1000	2.9 ~ 6.4	2.6 ~ 5.4
ASA-T60PB	ASA-T60PB-P/G	8.0	9.5	0.65	15.0 ~ 95.0	13.0 ~ 82.5	±3	550	4.1 ~ 7.0	3.3 ~ 6.0

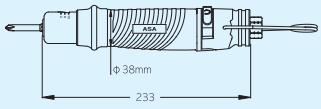
＊ B表1/4"六角起子頭，A表5mm六角起子頭　＊ B for 1/4" Hex. bit，A for 5mm Hex. bit

下壓式尺寸圖 Dimension

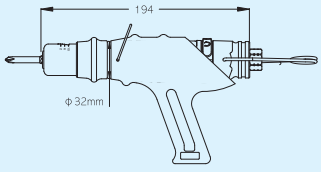
ASA-T(10,20,30,40)P



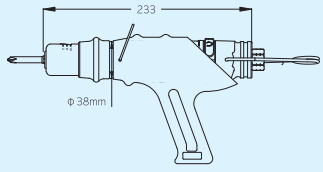
ASA-T(50,55,60)P



ASA-T(10,20,30,40)P-P/G



ASA-T(50,55,60)P-P/G



Unit：mm

氣動起子周邊設備 (選購品) Attachment of pneumatic screwdriver (Optional)

外觀 Outline	名稱 Description	規格 Specification
	槍型握把 Gun type-grip	4A9311
	彈吊車 Balancer 本產品可適用於無塵室，並通過SGS-10等級測試。 This product can be used in the clean room. It has passed SGS Clean room Class-10 test.	型號 Model / 載重 Load kgs / 載重 Load lbs / 伸縮長 Extend L. SB-1.2 / 0.5-1.2 / 1.1-2.6 / 1.6 m SB-2.0 / 1.0-2.0 / 2.2-4.4 / 1.6 m SB-3 0 / 2 0-3 0 / 4 4-6 6 / 1 6 m
	磁　環 MAG-O-NETS	編號 Parts NO. / 內徑 ID / 外徑 OD / 厚度 Thick AM 1/4 / 7 mm / 17.5 mm / 10 mm AM 5 / 5 mm / 17.5 mm / 10 mm AM 4 / 4 mm / 17.5 mm / 10 mm

扭力區分管理 Color torque control system

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The ASA color torque control system gives you an easily visible torque marking system at a glance for all the T series tools. Choice the color for each torque level used on your assembly line.

綠色 Green	黃色 Yellow	藍色 Blue	紅色 Red
			

電源控制器
Controller

IT'S VERY WELL MADE IN TAIWAN

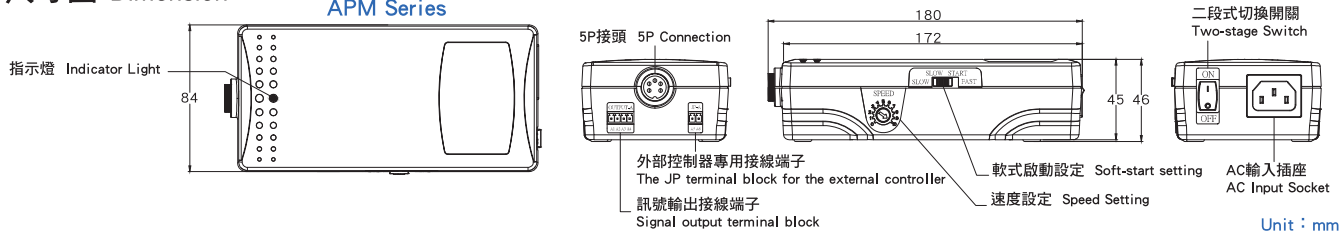


特點 Feature

- 雙電源：100-240V通用電源，輸出恆壓功能。
- 無段控制：電子科技產業追求薄、輕、短、小為未來科技主流，螺絲外形越小，螺絲鎖付緊固要求越高，無論較長或較短螺絲均能鎖付，同時滿足高精度與低貫量的需求。
- 軟式啟動：電源供應器內置0-1秒軟式啟動功能，第一圈慢速轉入至中心孔穴時即全速鎖入，有效降低螺絲與被鎖物之間的鬆動率。
- 數位辨識系統：電源供應器連接電動起子，電源開機的同時會自動偵測電動工具類型。

- Universal power source: It is suitable for any power source ranges between 100-240VAC.
- Stepless control: The electronic technology industry pursues thinness, lightness, shortness and smallness as the main stream in the future; the smaller the screw, the higher locking and tightening is required; both long and short screws can be locked and meet the requirements of high precision and low inertia at the same time.
- Soft start: There is 0-1 sec. soft-start function inside the power supply. The speed of fastening will gradually change from slow to fast motion during the fastening task. This lowers screw's levels of shaking during the operation.
- Digital identified system: When power supply connects to screwdriver and power is on, it will automatically detect type of electronic tools.

尺寸圖 Dimension



機型規格 Model and Specifications

項目 ITEM / 機種名 Model No.	APM-202B	APM-302B	APM-302C	APM-352B
輸入電壓VAC Input Voltage VAC	100-240V、50/60Hz			
輸出電壓VDC Output Voltage VDC	9-19V	20-30V	20-30V	25-35V
軟式啟動 Soft-start	無此功能 N/A	0-1sec.	0-1sec.	0-1sec.
輸出電壓設定 Output Voltage setting	無段設定 Stepless control			
輸出端子 Output Pin	5針 5 pin	5針 5 pin	6針 6 pin	5針 5 pin
內部訊號輸出 Internal signal output	啟動訊號/煞車訊號 Switch signal/Shut off signal			
外部訊號輸入 External signal input	啟動訊號 Switch signal			
可控制起子數 No. of Screwdriver/power supply	1支 1 pcs			
消耗功率(W) Power(W)	32.3W	51W	51W	52.5W
適用電動起子型號 Applicable Electric Screwdriver models	ASA-S1000M/A ASA-S1000M/A ASA-S1000M/A BS-100	ASA-S1000M/A ASA-S2000M/A ASA-S2500M/A ASA-2000M/S/A ASA-3000M/S/A ASA-4000M/S/A BS-100F BS-200 BS-250 BS-300 BS-400 BS-450 BS-2000 BS-3000 BS-4000 BS-4000F BS-6000 BS-6500 BS-6800	ASA-6000/PS ASA-6500/PS ASA-6800/PS ASA-7500/PS	ASA-2000/S ASA-3000/S ASA-4000/S ASA-4500/S
體積(mm) Dimension (mm)	172X84X46mm			
重量(g) Weight (g)	380g			
AC電源線長度(m) AC cable length (m)	1.8M			
安規認證 Approval by	CB, CE, UL(CUL), ROHS, REACH, KC, FCC, UKCA			
附屬品 Accessories	小螺絲刀、2P/4P插座式端子×1、AC電源線 Small screwdriver, 2P/4P socket terminal 1 pieces, and AC cable			

電源控制器
Controller

IT'S VERY WELL MADE IN TAIWAN

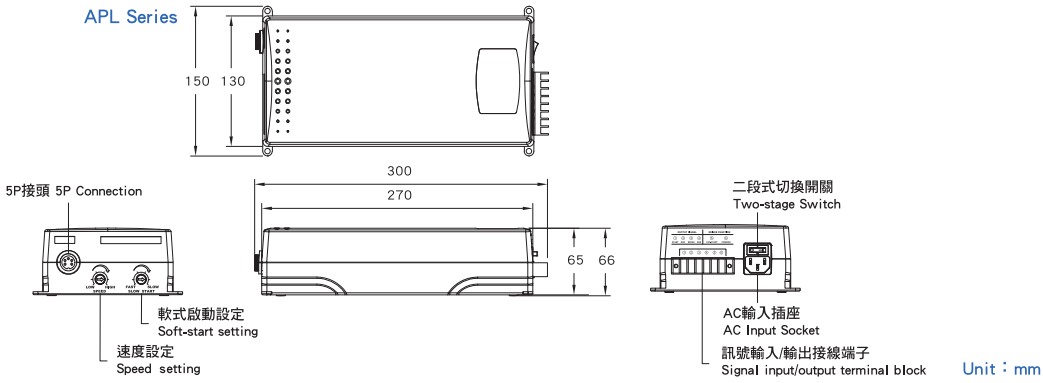


特點 Feature

- 通用電源：通用於100-240VAC 50/60Hz全球性電壓源。
- 輸出無段控制：輸出無段控制及恆壓功能，最適合於電子科技產業追求輕、薄、短、小的組裝作業；螺絲越小，螺絲鎖付的要求越高，無論較長或較短的螺絲均能滿足高精度、低慣量的鎖付要求。
- 軟式啟動：電源控制器內置0-1秒軟式啟動功能，鎖螺絲時最初以慢速轉入中心孔穴後即自動轉換全速鎖入，有效降低螺絲與被鎖物之間的鬆動率。
- 附有輸出訊號端子，可與外部控制器連結達到控制一體化功能。

- Universal power source: It is suitable for any power source ranges between 100-240VAC.
- Stepless control: Stepless control and constant voltage; very suitable for the electronic technology industry which pursues thinness, lightness, shortness and smallness assembling work; the smaller the screw, the higher locking and tightening is required; both long and short screws can be locked and meet the requirement of high precision and low inertia at the same time.
- Soft start: There is 0-1 sec. soft-start function inside the power supply. The speed of fastening will gradually change from slow to fast motion during the fastening task. This lowers screw's levels of shaking during the operation.
- With output signal terminal, it can connect with the external controller and reached the function of control integration.

尺寸圖 Dimension



機型規格 Model and Specifications

項目 ITEM / 機種名 Model No.	APL-301B
輸入電壓VAC Input Voltage VAC	100-240V、50/60Hz
輸出電壓VDC Output Voltage VDC	25-30V
軟式啟動 Soft-start	無段設定 Stepless control
輸出電壓設定 Output Voltage setting	無段設定 Stepless control
輸出端子 Output Pin	5針 5 pin
內部訊號輸出 Internal signal output	啟動訊號/煞車訊號 Switch signal/Shut off signal
外部訊號輸入 External signal input	啟動訊號 Switch signal
可控制起子數 No. of Screwdriver/power supply	1支 1 pcs
消耗功率(W) Power(W)	90W
適用電動起子型號 Applicable Electric Screwdriver models	ASA-8500/PS ASA-9000/PS
體積(mm) Dimension (mm)	270X130X66mm
重量(g) Weight (g)	1100g
AC電源線長度(m) AC cable length (m)	1.8M
安規認證 Approval by	CB,CE,ROHS,REACH
附屬品 Accessories	小螺絲刀、AC電源線 Small screwdriver, and AC cable

螺絲鎖付數位化管理系統
Digitalized Management System for screw fastening

IT'S VERY WELL MADE IN TAIWAN

生產線還在靠人工檢測螺絲鎖付作業OK與NG嗎？
Are you still checking whether the fastening work is OK or NG by man ?

讓AM螺絲鎖付數位化管理系統來協助您！
AM Digitalized Management System of screw fastening will do the work !

AM series 的優點 AM-series features :

檢測螺絲鎖付 Screw fastening check	防止螺絲鎖付未到底，螺絲滑牙，空轉的不良發生。 To prevent the occurrence of incomplete fastening work, strip, and idling.
檢測工件漏鎖螺絲 Omitting screw check	防止螺絲鎖付作業中，螺絲漏鎖的不良發生。 To prevent any possibility of missing screws during the fastening operation.
螺絲鎖付作業計數 Screw counting	設有螺絲計數&工件計數功能，工件計數可達60000 PCS。 It is installed with screw counting and unit counting functions. Screw counting up to 60K units.
超大螢幕計數顯示 Monitor with counting information	設有大尺寸LCD螢幕，鎖付數據簡單明瞭。 The big LCD monitor shows you clear counting information.
直覺式顏色鎖付判定 Fastening condition check by colour	螺絲鎖付OK螢幕背景呈現綠色，螺絲鎖付NG螢幕背景呈現紅色。 Green colour on the monitor suggests OK fastening and red colour on the monitor suggests NG fastening.
自動化設備應用 Automation application	標準配置訊號輸入/輸出端子，應用自動化超EASY。 You can easily connect AM-series to your automation equipment with standard input/output signals.
中文/英文操作介面 Bilingual operation interface	操作介面人性化，可任意切換中文/英文操作介面。 Humanity operation interface where you can switch the languages between Chinese and English.

AM series依據螺絲鎖付作業自動判定OK或NG，並發出警報聲音和螢幕背景顏色通知相關作業人員。
AM series automatically informs the operator whether the fastening work in OK or NG with the sound of alarm and the colour of the monitor.

鎖付正常（OK） OK fastening



平面鎖付 plane fasten　　凹孔鎖付 dents fasten

鎖付異常（NG） NG fastening



螺絲浮上 incomplete screw fastening　歪斜鎖付 not properly placed screw　底孔滑牙 stripping of bolt threads in the hole

螺絲鎖付數位化管理系統
Digitalized Management System for screw fastening



AM Series

IT'S VERY WELL MADE IN TAIWAN

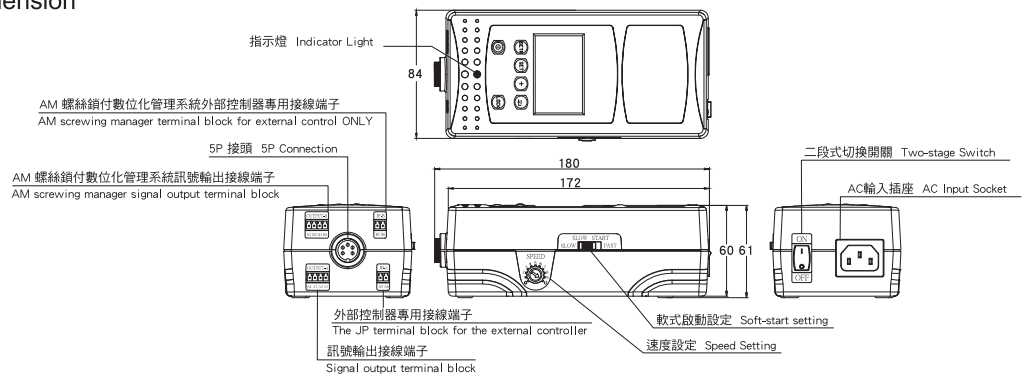
特點 Feature

- 附有蜂鳴聲功能，螺絲鎖付作業中，可防止螺絲漏鎖、鎖付未到底，螺絲滑牙，空轉等的不良發生。
- 設有工件數量累計及螺絲鎖付數量累計功能，工件數量累計數最多可達60K，單一工件螺絲鎖付數量累計數最多可達99pcs，可隨意設定。
- 附有輸出訊號端子，可與外部控制器連結達到控制一體化功能。
- 通用電源：通用於100-240VAC 50/60Hz全球性電壓源。
- 輸出無段控制：輸出無段控制及恆壓功能，最適合於電子科技產業追求輕、薄、短、小的組裝作業；螺絲愈小，螺絲鎖付的要求愈高，無論較長或較短螺絲均能滿足高精度，低慣量的鎖付要求。

- By the buzzer function is preventable of omission, incomplete screw fastening, thread damage, and being idled during the operation of the fastening work.
- Counting function helps you count up to max. 60K units and up to max. 99pcs of screws which need to be fastened per unit.
- By the output of the controller terminal can contact to external equipment to control electromagnetic valves etc.
- Universal power source: It is suitable for power source ranges between 100-240VAC 50/60Hz.
- Output stepless control: The electronic technology industry pursues thinness, lightness, shortness and smallness as the main stream in the future; the smaller the screw, the higher locking and tightening is required; both long and short screws can be locked and meet the requirements of high precision and low inertia at the same time.

尺寸圖 Dimension

AM Series



Unit：mm

機型規格 Model and Specifications

項目 ITEM / 機種名 Model No.	AM 控制器 AM Controller				
	AM-30	AM-45	AM-55	AM-65	AM-85
工件可累計鎖付計數範圍 Counting Range of Accumulative Screwing	1～60000				
單一工件可鎖付設定數範圍 Range of Setting Number of Unit Screwing	1～99				
鎖付時間樣品數設定範圍 Setting Range of Number of Sample Screwing Time	1～99				
鎖付設定值記憶/呼出數範圍 Range of Number of Memory/Calling-out of setting	10/10 組 10/10 set				
鎖付時間取樣值範圍 Range of Sampling Screwing Time	0.01～9.99 秒 0.01～9.99 seconds				
鎖付時間誤差值設定範圍 Setting Range of Screwign Time Error	±1～99%				
判定方式 Judgment	OK鳴聲與LCD顯示綠色背光 / NG鳴聲與LCD顯示紅色背光 OK sound and green LED light on / NG sound and red LED light on				
訊號輸出方式 Signal Output Mode	無電壓接點訊號(乾接點) Dry Contact (no voltage contact signal)				
輸入電壓 VAC Input Voltage (VAC)	100-240V、50/60Hz				
輸出電壓 VDC Output Voltage (VDC)	20～30V	25～35V	9～15V	20～30V	20～30V
軟式啟動 Soft-start	0-1秒 0-1 sec.	0-1秒 0-1 sec.	無此功能 N/A	0-1秒 0-1 sec.	0-1秒 0-1 sec.
輸出電壓設定 Output Voltage Setting	無段控制 Stepless Control				
輸出端子 Output pin	5針 5 pin	5針 5 pin	5針 5 pin	5針 5 pin	6針 6 pin
內部訊號輸出 Internal signal output	啟動訊號/煞車訊號/工件鎖付OK訊號/螺絲鎖付OK訊號/螺絲鎖付NG訊號 Switch signal/ Shut off signal/ work piece complete signal/ OK screw fastening/ NG screw fastening signal				
外部訊號輸入 External signal input	啟動訊號 Switch signal				
可控制起子數 No. of Screwdriver per screwing manager	1支 1 pcs				
消耗功率 (W) Power (W)	75W	70W	37.5W	75W	75W
適用電動起子型號 Applicable Model	BS-100F BS-2000 BS-200 BS-3000 BS-250 BS-4000 BS-300 BS-4000F BS-400 BS-6000 BS-450 BS-6500 BS-6800	ASA-2000/S ASA-3000/S ASA-4000/S ASA-4500/S	ASA-S1000M	ASA-S1000M ASA-S2000M ASA-S2500M ASA-2000M/S ASA-3000M/S ASA-4000M/S	ASA-6000 ASA-6500 ASA-6800 ASA-7500 ASA-8500
體積 (mm) Dimension (mm)	172×84×61 mm				
重量 (g) Weight (g)	450 g				
AC電源線長度 (M) AC cable length (M)	1.8M				
安規認證 Approval by	CB,CE,UL(CUL),ROHS,REACH				
附屬品 Accessories	小螺絲刀、2P/4P插座式端子x2、AC電源線 Small screwdriver, 2P/4P socket terminal 2 pieces, and AC cable				

可調式螺絲整列機
Adjustable Screw Feeder

IT'S VERY WELL MADE IN TAIWAN


AT-1050


AT-1050C


AT-1060


AT-1060C

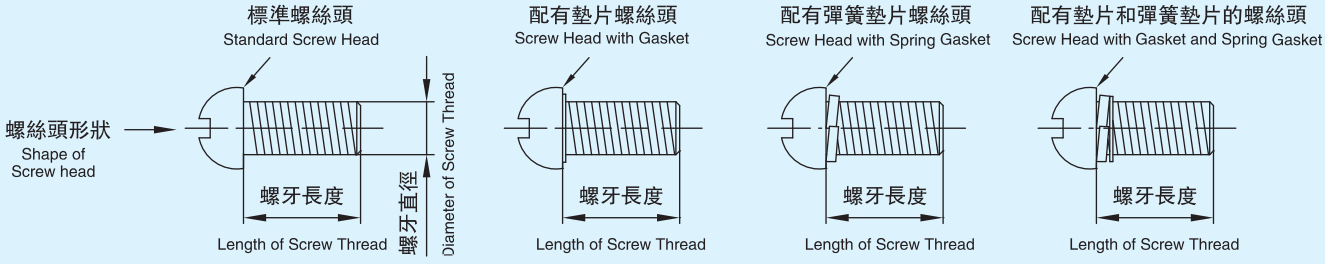

AT-1030TC

特點 Feature

- 分離式軌道設計，軌道可以抽出自由做調整，非常方便。
- 專利設計，供料快捷，穩定、無卡螺絲現象。
- 新型專利AT-1030定軌定片式適合任何形狀M1.0~M3.0螺絲，可自動送料絕不卡機，可用於自動化、氣吸式。
- 可按工作需要自由調整螺絲整列機送料速度和進料速度。
- 可使用特殊1:1短螺絲、帶墊片螺絲都可以通用。
- 體積小巧，不占空間，移動方便。
- 通用電源：通用於100-240VAC 50/60Hz全球性電壓源。
- 送料與震動驅動獨立控制，可自由設定理想的延時停止時間，當非正常情況產生時螺絲機會啟動故障警報功能。

- The design of separating rail allows free adjustment and it is easy to operate.
- The special design of the structure makes feeding fast and stable without idled screws being stuck in the machine.
- AT-1030 is designed with fixed rail and rotary plate and is suitable for various screws M1.0~M3.0. Its automatic screw feeding prevents screws from being stuck inside the machine.
- This machine can be used with automation and air screwdrivers.
- The feeding and charging speed of the machine can be adjusted freely according to the operating requirement.
- This machine is suitable for both special 1:1 short screws and screws with washer.
- Small size, occupying little space, and easy to move.
- Universal power source: It is suitable for power source ranges between 100-240VAC 50/60Hz.
- The drives of feeding and shaking are controlled independently. You can set your ideal lag shutdown time freely. The breakdown alarm function will be automatically turned on in case of abnormal conditions.

螺絲類型 Screw Type



機型規格 Model and Specifications

機種名 Model No.		AT-1050 標準型 standard	AT-1050C 計數器型 counting	AT-1060 標準型 standard	AT-1060C 計數器型 counting	AT-1030TC 自動化／氣吸式 for automation/vacuum pick up type
適用螺絲 Available Screw	螺絲牙徑 Diameter of Screw Thread	M2.0 - 5.0 mm	M2.0 - 5.0 mm	M2.0 - 6.0 mm	M2.0 - 6.0 mm	M1.0 - 3.0 mm
	螺絲頭類型 Type of Screw Head	JCIS：1、2、3及截錐頭型 JIS：截錐頭型、鈕扣型、傘頭型、圓頭型、埋頭型、WH、附彈簧墊片、附彈簧加平面墊片 JCIS：1,2,3, and pan-headed JIS：Pan head, button, truss, round, flat, WH. w/t spring washer, and w/t spring washer and flat		JCIS：1、2、3、4 類皿型頭 JIS:：皿型頭、加緊、壓力、UH蕈狀頭（埋頭或橢圓埋頭）帶或不帶墊圈 JCIS：1,2,3,4, and flat-headed JIS：flat head, tightening screw, pressure screw, and UH mushroom, head(Flat head or oval flat head) w/t or without washer		
	螺絲頭材料 Material of Screw Head	鐵或為磁鐵所吸引的材料 Iron or the material which can be attracted by the magnet				
	螺絲長度(最大) Length of Screw (Maximum)	20 mm		25 mm		10 mm
	螺絲長度(最小) Length of Screw (Minimum)	單一的：直徑 x 1.0；帶彈簧墊圈：直徑 + (0.5 x 直徑)；帶彈簧墊圈和墊圈：直徑 + (1.1 x 直徑) Single screw: diameter x 1.0; Screw with spring washer : diameter + (0.5 x diameter); Screw with spring washer and flat washer : diameter + (1.1 x diameter)				
輸出速度 Output Speed		2顆/秒 2 pcs/second				
保護/恢復功能 Protection / Recovery Function		過載保護電路、逆功率極性防止電路 Overload protection circuit, reverse power polarity prevention circuit				
輸入電壓 Input Voltage		12 VDC				
專用充電器 AC adaptor		輸入：AC100~240V、50/60 Hz　輸出：12VDC Input：AC100~240V　Output：12VDC				
外形尺寸 (mm) Dimension (mm)		185X130X150 mm		235X165X180 mm		215X125X150 mm
產品重量 (kg) Weight (kg)		1.8 kg	2.2 kg	4.8 kg	4.8 kg	3.1 kg
附帶配件 Accessories		操作手冊，通用型AC電源適配器，內六角扳手 Operation manual；AC adapter；Hexagon wrench				

好幫手扭力支臂架夾持系統

ASA Tool support systems

符合人體工學的ASA扭力支臂架夾持系統可以減低操作者疲勞，增加生產力。

Reduce operator fatigue and increase productivity with the ASA TORQUE ARM ergonomics tool support system.

IT'S VERY WELL MADE IN TAIWAN

特點 Feature

- 採用經陽級處理之鋁材質，重量輕。
- 無金屬直接接觸之接點，不會因磨耗產生粉塵。
- 兩件式組合前臂，組裝過程中工具移動更自由。
- 端點至前臂為容易調整之縮疊式構造，調整精度可達一英吋。
- 操作夾持系統所需力量可依不同操作員之需求調整。
- 操作員不易疲勞。
- 連續操作下亦能維持高精度之運作。
- 結構堅固，可承受高負荷。
- 適用於氣動及電動工具之夾持。

- Anodized aluminum finish.
- No metal-to-metal joints to create particle count.
- 2-piece hinged forearm allows more freedom of movement in the assembly process.
- Telescoping reach from end of forearm allows easy adjustment in 1-inch increments.
- Resistance can be set to suit individual operator preference.
- Reduce operator fatigue.
- Provide consistency and accuracy for repetitive assembly tasks.
- Heavy duty construction.
- For use with pneumatic and electric tools.

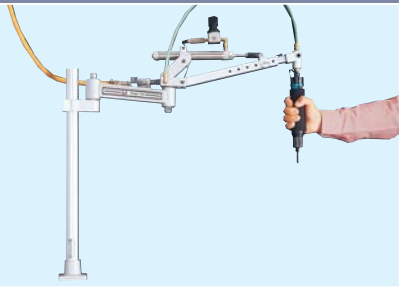
氣壓缸系列規格表 Air cylinder series specification

型號 Model	說明 Description	操作範圍 Reach	最大載重 Capacity	扭力上限 Maximum Torque
STD-15110-AC	標準型 Standard	4-33 in	0 ~ 15 Lbs	110 lbs-in
PARA-15110-AC	平行臂型 Parallel	4-33 in	0 ~ 15 Lbs	110 lbs-in

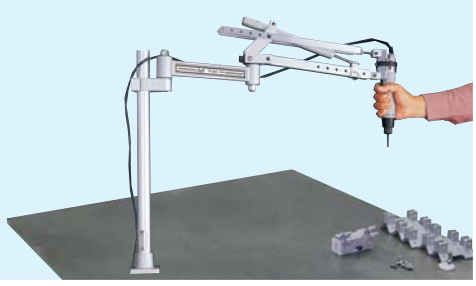
油壓缸系列規格表 Oil cylinder series specification

型號 Model	說明 Description	操作範圍 Reach	最大載重 Capacity	扭力上限 Maximum Torque
STD-03110-OC	標準型 Standard	4-33 in	0 ~ 3.0 Lbs	110 lbs-in
PARA-03110-OC	平行臂型 Parallel	4-33 in	0 ~ 3.0 Lbs	110 lbs-in

氣壓缸標準型系列 STD-15110-AC Standard system (air cylinder type)



油壓缸平行臂型系列 PARA-03110-OCE Parallel system (oil cylinder type)



功能 Function

- 允許工具各方向之前-後、左-右移動。
- 兩件式組合前臂使組裝過程中工具移動更自由。
- 端點至前臂為容易調整之縮疊式構造，調整精度可達一英吋，調整極限可達六英吋。

- Allows universal tool motion from side to side and front to back.
- 2-piece hinged forearm allows more freedom of movement in the assembly process.
- Telescoping reach from end of Forearm allows easy adjustment in 1-inch increments up to 6inches.

ASA扭力支臂架夾持系統之配件 ASA Torque arm accessories

可根據作業型態選擇不同的夾持臂前端轉接配件，結構堅固的工具夾持器可容許各方向轉動、擺動、扭轉之操作，也可以根據作業需求鎖定一個或數個方向之旋轉動作。此外，工具夾持器轉接配件使用容易，可運用在各種不同的作業環境。

End-of-Arm tooling options for the ASA torque arm allow you to choose the style your application requires. The tool holders allow the tool to swivel, rotate, swing or twist. Its heavy duty construction allows you to lock out any single or combination of rotating actions allowing only the motions required by your application. In addition, End-of-Arm Tooling brackets allow easy conversion, so one ASA torque arm can be used for more than one application.

配件表 (選購品) Accessories (Optional)

90°彎頭固定座 Right angle tool mount	電動工具固定座 Wrist bracket "V" for electric tool mount	電動工具固定座-1 Wrist bracket "V" for electric tool mount	電動工具固定座-2 Wrist bracket "V" for electric tool mount	氣動工具固定座 Air manifold	牆壁固定夾 Wall Clamp	桌上固定夾 Bench Clamp
						
EAA-21	EAP-202ED (For STD type)	EAP-202 (For PARA type)	EAP-202-1 (For PARA type)	EAP-203 (For PARA type)	EAA-01	EAA-02

好幫手數位式扭力測試機
ASA Digital Torque Meters



IT'S VERY WELL MADE IN TAIWAN

特點 Feature

- 可儲存800筆資料。
- 便利的功能裝置，例如：測量開始裝置…等等。
- 可即時(大約每1/180秒)輸出測量下的負載扭力數據
- 可充電電池驅動
- 藉由自動關機功能可避免忘記關機。
- 藉由USB輸出，您可以用個人電腦管理數據。
- 歸零調整功能。
- 自動清除顯示的測量值。

- Save 800 data.
- A convenient functional setup of a setup of a measurement start value etc.
- About the load torque under measurement, it is a data output at real time (every about 1/180 seconds).
- Rechargeable battery drive
- By the auto power OFF, it forgets to erase and prevent.
- By the USB output, it is personal computer management about data.
- One-touch zero adjustment
- Measured-value display automatic clear setup

規格表 Specification

機種 Model		DTM-150M	DTM-15M
測定範圍 Measuring range		0.10~15.00 N-m 1.0~150.0 kgf-cm 1.0~130.0 lbf-in	4.0~1500 mN·m 0.040~15.00 kgf-cm 0.040~13.50 lbf-in
精度 Accuracy		±0.5%	
顯示器 Display		LCD3.5位數表示 The 3.5 figures digital display of LCD	
測定方向 Measuring direction		順時針-反時針方向 (右邊與左邊) CW-CCW (right and left)	
測量模式 Measuring mode	最大值 P-P Peak	固定顯示最高的負載值 Peak load value hold.	
	隨機值 T-R Track	負載改變顯示的數值也隨之改變 Indication of real time torque value.	
	最大值之下 P-D Peak down	捕捉並顯示從上升轉變為下降的瞬間負載 Load catches and displays the moment included in descent from a rise.	
	即時數據輸出 C(Real-time Output)	約每1/180秒，輸出扭力負載 The data output of the load torque value is carried out every about 1/180 seconds.	
上下限的判定功能 High and low limits judging function		在限制範圍內測量最高與最低的數值，可設定限制範圍 High and low value are measurement within the limits, and can be set up.	
即時輸出 Real-time Output		大約每隔1/180秒，經由USB輸出負載扭力值 Load torque value are measurement within the limits, and can be set up.	
最大值，最小值及平均值表示 The Maximum, the minimum, and the average value display		可顯示30個測試值的最大、最小、平均數值 It displays the maximum, the minimum, average value, the number of data to 30 data.	
自動清除時間 Automatic Cleartime		在0.1-3.0秒間可任意設定每隔0.5秒顯示器會自動歸零。若設在0.0秒時表示以手動方式歸零。 In 0.1-3.0 seconds (0.5-second interval, an indication is automatically given zero.) It is a manual zero clearance by 0.0-second setup.	
單鍵歸零 One-touch zero		藉由按下清除鈕，利用單鍵完成歸零調整 By pushing a clear button, zero adjustment can be performed by one-touch.	
數據的記憶 Data memory		可保存800筆測定數據 / 平均等統計數據，有10個頻道可儲存 Measured value-800 data/statistics data, such as an average-10 channels.	
數據的輸出 Data output		ASCII格式 (傳輸速率19200) ASCII format (baud rate 19200)	
電源 Power supply		鎳鎘可充電電池 / 可充電300次以上 Ni-Cd chargeable battery 1.2V×5cells 700mAh / 300 time or more charge life	
自動關機 Auto power off		10分鐘內無操作動作，自動關機。 10 minutes no use, automatically switch off.	
充電時間 Charging time		3小時以內 From empty - less than 3hours	
連續使用時間 Continuous working time		12小時 / 12 hours	
插槽尺寸 Socket size		□ 20mm / □9.5mm	
重量 Weight		1公斤 / Abbreviation 1 kg	
外觀體積 Outside dimension		155(寬)×125(深)×55(高) 155(W)×125(D)×55(H)	
配件 Accessories (每種一件 one piece each)		ASJ-50/ASJ-10K 扭力傳導器	ASJ-10K/ASJ-1.5 扭力傳導器
		USB並連電纜*1PC, 驅動程式光碟片(for windows)*1PC	
		內六角起子頭6mm*4PC	內六角起子頭6mm*4PC
		專用箱	
		AC/DC充電器(選擇使用120伏特或230伏特的充電器)	
		校正結果、校正證書、可追蹤的系統圖	
		Measurement joint ASJ-50/ASJ-10K (4 bits HEX Opposite side 6mm)	Measurement joint ASJ-10K/ASJ-1.5 (4 bits HEX Opposite side 6mm)
		USB connector cable*1, drive on CD-ROM*1 (for windows)	
		transfer bit*4	transfer bit*4
		Exclusive case	
		AC/DC adaptor (Choose AC adaptor out of 120V. and 230V.)	
		Result of calibration, certification on calibration, traceability system figure	

＊ 注意：連續衝擊式半自動電氣動工具請勿測試 Caution: Don't use for measurement of impact tool.
本系列產品由日本杉崎計器株式會社原廠製造，內附杉崎原廠校驗證明書及扭力驗證表。 This torque meter is made from SUGISAKI METER CO., LTD in Japan.
Each meter is attached with the certification on calibration and result of calibration.

＊ 電 / 氣動扭力起子，重複扭力精度計算方式 $\pm\% = \frac{\text{平均值} - \text{最小(大)值}}{\text{平均值}} \times 100$

高精度扭力測試機
High-precision Torque Meter

IT'S VERY WELL MADE IN TAIWAN



特點 Feature

- 扭力測試範圍大，精度高，型號齊全。
- 順時針逆時針方向，鬆緊扭力皆可，不必更換起子頭，附有可直接測試之扭力傳導器，扭力值顯示自動清除歸零。
- 扭力單位kgf. cm/N. m二種以及測量模式PEAK/TRACK/F. PEAK三種模式可選，可方便選擇數值輸出方式。
- 可運算顯示扭力的最大值和平均值。
- 內置輸出端子，可連接電腦，從事扭力記錄、編輯、計算。
- 手提可充電式設計，體積小、重量輕、使用方便。

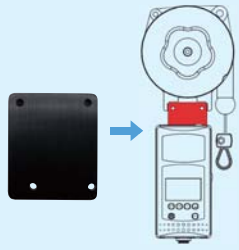
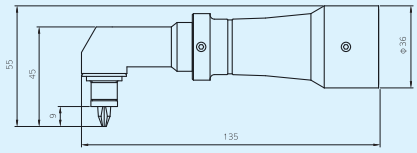
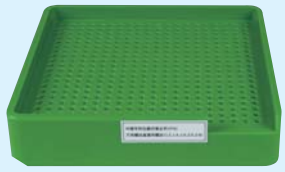
- Wide measuring range, high accuracy and the model are complete.
- Attached the measuring joint (either one) can be run clockwise or counter-clockwise to measure the o/p torque with usual bit and the measured value will be cleared in setting time automatically.
- There are two measuring units: kgf.cm/N.m and three measuring modes: peak, track, F.Peak for easy choice to operate.
- It can calculate and display the maximum and average torque value.
- Built-in an o/p terminal which it can be connected to the computer for recalling, editing and calculating measured datum.
- The meter is attached rechargeable batteries, small volume and light weight, it is convenient to use.

機型規格 Model and Specifications

機種名 Model No.		AP-2	AP-10	AP-50	AP-100	AP-300
測定範圍 Standard measuring range	(kgf.cm)	0.03～2.00	0.15～10.00	0.75～50.0	1.5～100.0	7～300
	(N.m)	0.003～0.200	0.015～1.000	0.075～5.00	0.15～10.00	0.7～30.0
	(lbf.in)	0.02～1.73	0.13～8.68	0.65～43.4	1.3～86.8	6～260
扭力精度 Accuracy		±0. 5%（199或者低於±1位數） ±0. 5%（199 digit or less ±1digit）				
顯示器 Display		液晶LCD數位顯示 LCD digital display				
測定方向 Measuring direction		順時針-逆時針方向(右邊與左邊) Clockwise, counterclockwise				
測量模式 Measuring mode	PEAK	固定顯示最高的負載值 lock display when the torque reaches peak value				
	TRACK	負載改變顯示的數值也隨之改變 display changes along with the current torque value				
	F.PEAK	當扭力達側最初峰值時鎖定顯示 lock display when the torque reaches first peak value				
電　源 Power Source		鎳氫可充電電池, 可充電300次以上 Ni-MH chargeable battery 1.2Vx5cells 700mAh / 300 time or more charge life				
充電時間 Charging time		6小時 6 hours				
連續使用時間 Working time		8小時 8 hours				
輸入電壓 Input Voltage		8 VDC				
專用充電器 AC adaptor		輸入：AC100～240V、60/50Hz　輸出：DC7. 3～8V、0. 5A Input：AC100～240V、60/50Hz output：DC7.3～8V、0.5A				
插槽尺寸 Socket size		20mm				
外形尺寸（mm） Dimension（mm）		230(長)x120(寬)x60(高)mm 230（L）×120（W）×60（H）mm				
重　量（kg） Weight（kg）		2. 0kg				
注意事項 Caution		1. 連續衝擊式半自動電、氣動工具請勿測試；2. 不能測試超過扭力測試機最大扭力測試範圍 1.Does not use for measuring impact, semi-auto shut off type of electric and pneumatic tools. 2.The max measuring range can not over the standard measuring range.				

好幫手附件及週邊設備
ASA Accessories of electric screwdriver

IT'S VERY WELL MADE IN TAIWAN

連接固定片（適用於電源供應器和德式彈吊車組合） Connect to the fixed board (For controller and balancer asssembly)	超迷你彎90°轉接頭 Mini type 90°bending coupler	多功能螺絲專利整理盒（一台適用1.2, 1.4, 1.6, 2.0, 2.4螺絲） Patented multifunction screw kit box (1 set Available 1.2, 1.4, 1.6, 2.0, 2.4 screwdrivers)
	 Unit：mm	

磁環 MAG-O-NETS

外觀 Outline

紅色 Red	黃色 Yellow	綠色 Green	藍色 Blue	橘色 Orange
				

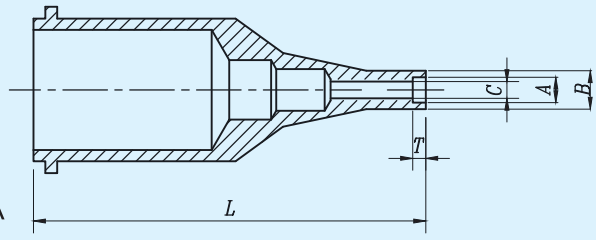
規格 Specification

編號 Parts No.	內徑 ID	外徑 OD	厚度 Thick
AM 1/4	7 mm	17.5 mm	10mm
AM 5	5 mm	17.5 mm	10mm
AM 4	4 mm	17.5 mm	10mm

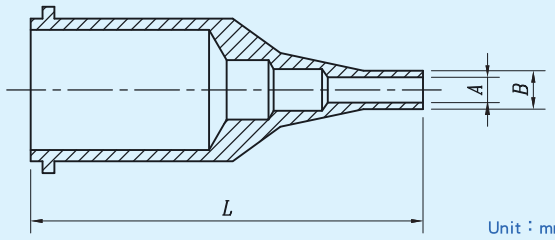
特點 Feature

- 方便拾取螺絲，作業效率高。
- 適用於任何起子頭。
- Increase productivity by easily locating fasteners.
- Fits virtually any standard screwdriver bit.

尺寸圖 Dimension



圖A



圖B

Unit：mm

氣吸式電動起子吸嘴規格表 Sucker specification for the sucking electric screwdriver

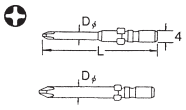
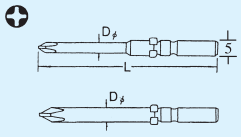
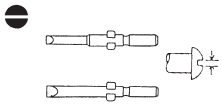
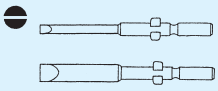
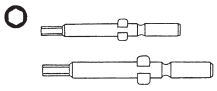
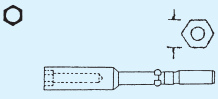
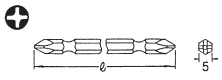
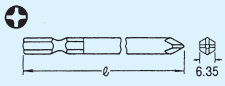
料號 Part No.	尺寸(A) Diameter A	尺寸(B) Diameter B	尺寸(C) Diameter C	尺寸(L) Diameter L	尺寸圖 Dimension
4M9000	6.2(*5.5t)	7.2	5.7	34	圖A
4M9009	1.4	2.1		34	圖B
4M9010	1.7	2.4		34	圖B
4M9011	1.8	2.8		34	圖B
4M9012	2.0	3.0		34	圖B
4M9013	2.2	3.2		34	圖B
4M9014	2.4	3.4		34	圖B
4M9015	2.7	3.7		34	圖B
4M9016	2.03(*0.6t)	2.8	1.6	34	圖A
4M9017	2.03(*0.6t)	3.0	1.7	34	圖A
4M9021	2.1(*1.1t)	3.2	1.8	33	圖A
4M9022	2.6(*1.1t)	3.7	2.1	33	圖A
4M9023	3.1(*1.5t)	4.2	2.6	33	圖A
4M9024	4.5(*3.5t)	5.6	4.3	33	圖A
4M9025	5.5(*3.5t)	6.6	4.3	33	圖A
4M9026	4.9(*3.5t)	6.0	4.0	33	圖A
4M9027	3.3(*1.0t)	4.5	2.0	33	圖A
4M9028	4.2(*1.0t)	5.4	3.0	33	圖A
4M9029	1.5(*0.8t)	2.1	1.3	34	圖A
4M9031	2.1	3.2		33	圖B
4M9032	2.6	3.7		33	圖B
4M9033	3.1	4.2		33	圖B
4M9034	3.6	4.7		33	圖B
4M9035	4.1	5.2		33	圖B
4M9036	5.1(*3.0t)	6.0	3.2	34	圖A
4M9040	2.0(*2.0t)	3.0	1.8	34	圖A
4M9041	2.2(*2.0t)	3.2	1.8	34	圖A
4M9042	2.4(*2.0t)	3.4	2.0	34	圖A
4M9043	2.7(*3.0t)	3.7	2.2	34	圖A
4M9044	3.0(*3.0t)	4.0	2.5	34	圖A
4M9045	3.2(*3.0t)	4.2	2.7	34	圖A
4M9046	3.4(*3.0t)	4.4	3.0	34	圖A
4M9047	3.7(*3.0t)	4.7	3.2	34	圖A
4M9048	4.0(*4.0t)	5	3.5	34	圖A

料號 Part No.	尺寸(A) Diameter A	尺寸(B) Diameter B	尺寸(C) Diameter C	尺寸(L) Diameter L	尺寸圖 Dimension
4M9049	4.2(*4.0t)	5.2	3.7	34	圖A
4M9050	4.4(*4.0t)	5.4	4.0	34	圖A
4M9051	4.7(*4.0t)	5.7	4.2	34	圖A
4M9052	5.0(*4.0t)	6	4.5	34	圖A
4M9053	5.2(*4.0t)	6.2	4.7	34	圖A
4M9054	5.4(*4.0t)	6.4	5.0	34	圖A
4M9055	5.7(*4.0t)	6.7	5.2	34	圖A
4M9056	6.0(*4.0t)	7	5.5	34	圖A
4M9057	4.6(*8.0t)	5.4	4.0	37	圖A
4M9058	4.4(*8.0t)	5.1	4.0	37	圖A
4M9060	2.6(*1.2t)	4	2.4	39	圖A
4M9061	3.1(*1.0t)	4.5	2.7	39	圖A
4M9062	3.4(*1.0t)	4.8	3.0	39	圖A
4M9063	4.4(*1.2t)	5.8	4.0	39	圖A
4M9064	4.5(*1.2t)	5.9	4.0	39	圖A
4M9065	4.5(*1.3t)	5.9	4.0	39	圖A
4M9066	4.5(*1.6t)	5.9	4.0	39	圖A
4M9067	8.0(*1.1t)	9.4	7.0	39	圖A
4M9068	4.5(*16.3t)	6.5	4	84	圖A
4M9069	4.5(*16.3t)	6.5	4	74	圖A
4M9070	2.0(*1.65t)	3*L:7.5/5	1.7	62	圖A
4M9071	2.0(*1.65t)	3*L:7.5/6	1.7	62	圖A
4M9072	4.5(*12.3t)	6.5	4	84	圖A
4M9073	5.3(*9.5t)	7	4	84	圖A
4M9074	4.5(*12.5t)	7	4	84	圖A
4M9075	3.4(*3t)	7	2.7*L:12/4	84	圖A
4M9076	3.4(*3.5t)	7	2.7*L:12.5/4	84	圖A
4M9077	3.1(*3t)	7	2.7*L:12/4	84	圖A
4M9078	2.05(*0.5t)	3	1.7	62	圖A
4M9079	4(*1.3t)	6.5	5	39	圖A
4M9080	4.4(*1.2t)	6.5	5	39	圖A
4M9082	1.6(*0.5t)	2.6	1.4	34	圖A
4M9085	2.5	3.1		37.15	圖B
4M9088	2.55	3.1		37.15	圖B

好幫手起子頭
ASA Bit

IT'S VERY WELL MADE IN TAIWAN

起子頭規格 Bit specification

外型 Outline	型式 Type		品樣 Dimention(mm) 尖端T×直徑D×長度L	適用螺絲 Available screw
	φ4	十字穴 Phillips	00 ×2.0 ×40	M0.8~M1.2
			0 ×2.5 ×40	M1.2~M1.7
			1 ×3.0 ×40	M2.0~M2.6
			1 ×4.0 ×40	M2.0~M2.6
			2 ×4.0 ×40	M3.0~M5.0
	φ5	十字穴 Phillips	00 ×2.0 ×60	M0.8~M1.2
			0 ×2.5 ×60	M1.2~M1.7
			1 ×3.0 ×60	M2.0~M2.6
			1 ×5.0 ×60	M2.0~M3.0
			2 ×5.0 ×60	M3.0~M5.0
			3 ×7.0 ×60	M6.0~M8.0
	φ4	一字穴 （刃厚mm） Slotted (edge of thickness)	0.3 ×1.7 ×40	M1.2~M1.8
			0.4 ×2.0 ×40	M2.0~M2.2
			0.4 ×2.5 ×40	M2.0~M2.2
			0.4 ×3.0 ×40	M2.0~M2.2
			0.6 ×4.0 ×40	M2.2~M2.6
	φ5	一字穴 （刃厚mm） Slotted (edge of thickness)	0.4 ×3.0 ×60	M2.0~M2.2
			0.6 ×4.0 ×60	M2.2~M3.0
			0.7 ×5.0 ×60	M3.5
			1.0 ×7.0 ×60	M3.8~M4.0
	φ4 φ5	內六角邊距 Distance between side to side of hex bit holder	0.89 1.27 1.5 2.0 2.5 3.0 1.27 1.5 2.0 2.5 3.0 4.0 5.0 6.0	
	φ4	六角螺母邊距 Distance between side to side of hex bit holder	2.3 2.5 3.0 4.0 4.5 5.0 5.5 6.0 7.0 8.0 9.0 10.0	
	φ5		4.0 4.5 5.0 5.5 6.0 6.35 7.0 8.0 9.0 10.0 10.0 11.0 12.0 13.0 14.0 17.0	
	5mm hex shank 六角對邊	十字穴 Phillips	1 ×5.0 ×75	2.0~2.6
			1 ×5.0 ×100	2.0~2.6
			2 ×5.0 ×75	3.0~5.0
			2 ×5.0 ×100	3.0~5.0
	6.35mm(1/4") hex shank 六角對邊	十字穴 Phillips	1 ×6.35 ×65	2.0~3.0
			1 ×6.35 ×100	2.0~3.0
			2 ×6.35 ×65	3.0~5.0
			2 ×6.35 ×100	3.0~5.0

螺絲對鎖緊扭力表 Screw vs. torque reference list

六角螺絲種類 Hex shank screw type					螺絲螺牙直徑 Screw shank diameter	參考標準鎖緊扭力 Reference torque(kgf-cm)			
內六角螺絲 Hex socket head screw	止付螺絲 Hex socket headless set screw	小型六角螺絲 Mini hex screw	六角螺絲高張力 Hex high tension screw	六角螺絲 Hex screw		塑膠品、鋁板、銅板 Plastic/aluminum/copper	普通材質 Common	高張力 High tension	高摩擦接合用 High friction
(0.5)	(0.9)	—	—	4	M2	0.8	1.5	2.7	3.6
(2)	(1.27)	—	—	4.5	M2.5	1.6	3.2	5.8	7.7
2.5	1.5	—	—	5.5	M3	3	6	10.8	15
—	—	—	—	6	(M3.5)	5	10	18	24
3	2	—	—	7	M4	8	16	28	30
—	—	—	—	8	(M4.5)	11	21	38	38
4	2.5	—	—	8	M5	15	30	54	72
5	3	—	—	10	M6	25	50	90	120

好幫手客戶訪談資料表
ASA Customer interview list

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日期 Date：_____

好幫手客戶訪談資料表 ASA Customer interview list	
貴公司名稱 Company name	
所屬部門 Department	職稱 Position
公司地址 Address	
姓名 Name	
連絡電話 Tel.	分機 Ext.
傳真 Fax.	
電子郵件 E-mail	
生產產品名稱 Product name	

訪談項目 ITEM	現狀敘述 Statement at present situation
電源供應 Power supply	電壓 VAC_____ ☐ 穩定 Constant ☐ 不穩定 Un-Constant VAC.MIN _____ VAC VAC.MAX _____ VAC
螺絲種類 Screw kind	☐ 機械牙 Machine screw ☐ 自攻牙 Tapping screw 直徑 Diameter _____ mm 長度 Length _____ mm
被鎖物 Work piece	名稱 Name _____ 材質 Material _____
每天鎖付螺絲總數(個) How many screws when you screw in a day? (Total amount)	正轉 FWD. _____ PCS 反轉 REV. _____ PCS
每天輪班(次) Shift in a day(time)	
銷付間隔(秒) Interval time for screw(second)	
銷付扭力(kgf-cm) Torque value(kgf-cm)	
無載轉速(rpm) No load speed(rpm)	
起子頭搖擺度 Shake state for bit	種類 Kind _____ 長度 Length _____ mm ☐ 好 Good ☐ 不好 Bad
特殊需求 Other Request	☐ UL,CSA ☐ CE ☐ EMC ☐ ESD ☐ 其他 Others _____
螺絲起子種類 Screwdriver's kind	☐ 電動 Electric ☐ 氣動 Pneumatic ☐ 槓桿式 Lever type ☐ 下壓式 Push type ☐ 直接插入式 (高壓馬達驅動)Controllerless (High vol. DC motor driving) ☐ 附控制器 (低壓馬達驅動)w/controller (Low vol. DC motor driving) 品牌 Brand _____ 型號 Model no. _____
起子頭種類 Bit kind	☐ 1/4″ 六角 1/4″ hex shank ☐ 5ψ/5mm六角 5ψ/5mm hex shank ☐ 4ψ ☐ 5ψ ☐ 單頭 Single head ☐ 雙頭 Double head
電源供應器種類 Power supply kind	☐ 無 NO ☐ 有 YES 品牌 Brand _____ 型號 Model no. _____
螺絲起子操作性 Screwdriver's operation	☐ 很好 Good ☐ 普通 Common ☐ 笨重 Heavy ☐ 其他 Others _____
起子散熱性 Screwdriver's radiator function	☐ 很好 Good ☐ 普通 Common ☐ 很差 Bad _____ 分鐘後 after minute.
容易損壞零件 Easy to break parts	型號 Type no. _____ 名稱 Name _____ ☐ 馬達 Motor ☐ 碳刷 Brush ☐ 導線插頭 Cable plug ☐ 外殼 Housing ☐ 啓動開關 Micro switch ☐ 機械零件 Parts
建 議 Suggestion	

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肯定與榮耀 Recognitions and Honors

- 1990 榮獲臺灣時報廣告獎
- 1991 榮獲臺灣4A廣告創意獎
- 1993 榮獲中國創造發明壹等獎
- 1994 榮獲臺灣中小企業創新研究獎
- 1994 產品通過UL安規認證
- 1997 產品通過CE (EMC、LVD)安規認證
- 1999 榮獲臺灣精品標誌
- 2000 榮獲臺灣產品形象金質獎
- 2002 品質管理系統通過ISO9001國際認證
- 2006 通過中國3C認證
- 2022 產品通過UKCA安規認證



- 1990 China Times' Advertisement Prize
- 1991 4A Advertisement Originality Prize
- 1993 Creation & Invention Prize
- 1994 Medium & Small Business Innovation Research Award
- 1994 Products obtain the certificates for passing UL Safety Standards
- 1997 Products obtain the certificates for passing CE (EMC、LVD) Safety Standards
- 1999 Taiwan's Excellent Product Mark
- 2000 The Gold National Awards of Excellence
- 2002 Quality control system obtain the ISO9001 approval, SGS United Kingdom Ltd.
- 2006 Products obtain China 3C certification
- 2022 Products obtain UKCA certification for United Kingdom

榮獲ISO-9001國際認證、臺灣精品標誌及臺灣產品形象金質獎，並通過國際多項安規認證。

台灣精品標誌

Ergonomics Electric Screwdrivers

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