

TROY

TROY ENTERPRISE COMPANY LTD.

**Multi-Style Gearbox Design
for Various Application**



Gearbox **減速機** 型錄

Ver.
1

About

品質・技術・服務一體的泰映

Quality, Technology, Service all-in-one

「泰映科技股份有限公司」，為精密馬達、馬達控制器及精密減速機，設計、製造一體的馬達專業製造商。
TROY Enterprise Co., Ltd. specializes in the designing and manufacturing of Motors, Motor drivers, Controllers, and Gearboxes series.

為了建立「以客戶為中心、滿足客戶需求」的銷售、服務、信用體系，落實「提供好的產品與服務給客戶，協助客戶提升競爭力」的企業政策與承諾：

- 1996年公司成立即積極導入ISO9001、ISO14001之國際品質與環境保證體系，於1999年首次通過德國TÜV認證，且每年持續進行系統稽核至今。
- 產品安全規格認證方面：於2001年起陸續通過SGS-CE、TÜV-CE、CQC-CCC、cTÜVus、RoHS.....等產品安全相關認證及持續每年度稽核查驗。
- 企業財務信用認證方面：於2011年起每年接受Dun & Bradstreet, Inc.的D&B Credit 財務風險管理認證。

In order to establish a sales, service and credit system that is "Customer-centric and meet customer needs"; Implement corporate policies and commitments to provide customers with "Providing good products and services to customers and assisting customers to enhance their competitiveness".

- When TROY was founded in 1996, it actively introduced international quality and environmental assurance systems, ISO9001 and ISO14001. We passed the German TÜV certification in 1999 and continues to conduct systematic audits every year.
- Product safety specification certification: Since 2001, we have passed SGS-CE, TÜV-CE, CQC-CCC, cTÜVus, RoHS... and other product safety-related certifications and continuous annual inspections.
- Corporate financial credit certification: TROY got the D&B Credit financial risk management certification of Dun & Bradstreet, Inc. annually since 2011.

「泰映科技」是一家具備創新精神、設計理念、系統發展的公司。

以滿足顧客需求為中心，思考產品應具備的特性及功能；以色彩、造型、質感為研發設計訴求，顛覆傳統對工業產品的既有觀感；確立產品的自有特色與市場定位；將複雜的技術理論化身為簡單、易用、可靠的產品；徹底落實「品質」、「技術」、「服務」的經營理念。

TROY is a company with an innovative spirit, design concept, and system development.

We think about the features and functions of products focused on customer needs. Through the color, shape, texture for the R & D design appeal to establish the product's own characteristics and market positioning; to subvert the traditional impression of industrial products. Incorporate complex technical theories into simple, easy-to-use, and reliable products; to thoroughly implement the business philosophy of "Quality, Technology, Service all-in-one".

製造體系架構

Manufacturing system architecture

馬達・減速機・驅動器・控制器

Motors・Gearboxes・Motor Drivers・Motor Controllers

可依客戶需求提供ODM及OEM的專業服務

ODM & OEM professional service by demand



平行式減速機

PARALLEL TYPE GEARBOX

- 平行軸向的設計 - 安裝空間節省
Parallel axis design - Save installation space
- 一體化的設計 - 效率、強度、精度提升
Integrated design - Enhance efficiency, strength, accuracy
- 對稱結構的設計 - 水平載重強度提高
Symmetrical structure design - Enhance horizontal load strength

9F□H



9F1G18



9F□H 平行式 減速機

PARALLEL TYPE GEARBOX

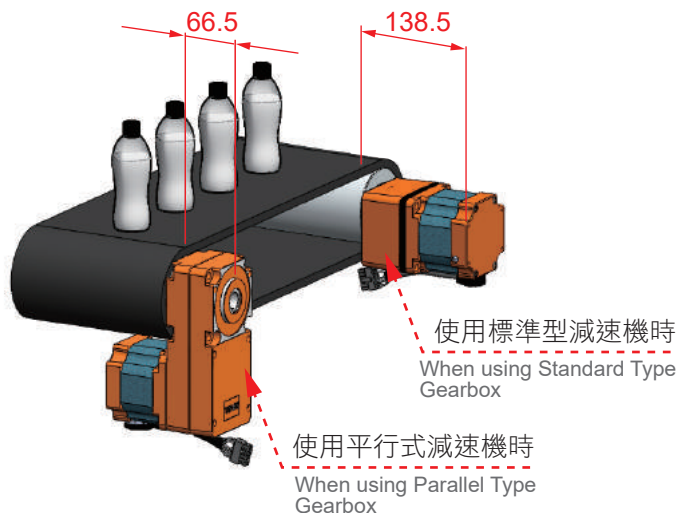


■ 應用特色 Application Features

特色1 平行軸向設計：節省安裝空間
Feature 1 Parallel axis design: Save installation space.

■ 節省**72mm**的空間，實現機構小型化！
 Save 72mm space to achieve mechanism miniaturization!

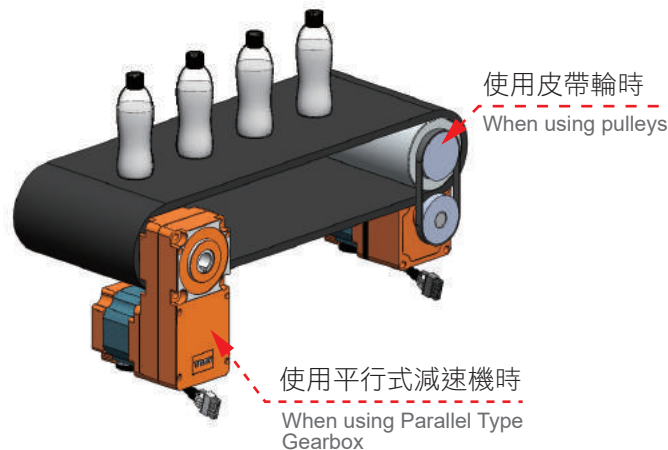
※ 圖示為9B200P-□搭100比減速機為例
 ※ The image is example for motor 9B200P-□ with gearbox ratio 1:100.



特色2 一體化設計：效率、強度、精度、安全性提升
Feature 2 Integrated design: Enhance efficiency, strength, accuracy and safety.

■ 直結驅動軸傳動的一體化設計：省下一般機構連結使用的零件(例：皮帶輪、齒輪、磁環、鍊條…等)，降低外部環境干擾及組裝工時耗費，提高使用壽命與安全性！

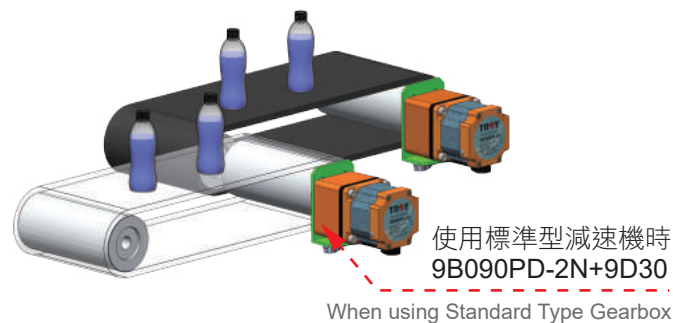
Integrated design of direct drive spindle: Can save the use of components for general mechanism connections (ex. pulleys, gears, magnetic rings, chain...), reduce external environmental interference and assembly time, improve service life and more safety!



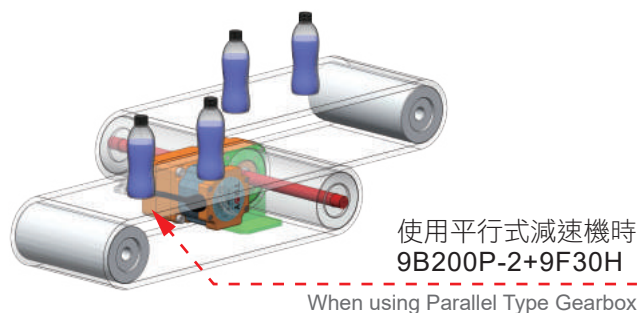
特色3 對稱結構設計：水平載重強度提高，機構更精簡
Feature 3 Symmetrical structure design: Enhance horizontal load strength and simplify mechanism.

■ 專利對稱型結構設計：兩側軸偏心率小，可承受相同載重；水平載重強度提升，可精簡馬達、減速機裝配數量，費用、空間再節省！

New type patent symmetrical structure design: Small amount of shaft eccentricity on both sides, and it can hold up the same load; enhance horizontal load strength, reduce the number of motor, gearbox assemblies to save money and space!



VS



新式樣專利證書 New Type Patent Certificate



台灣
 Taiwan



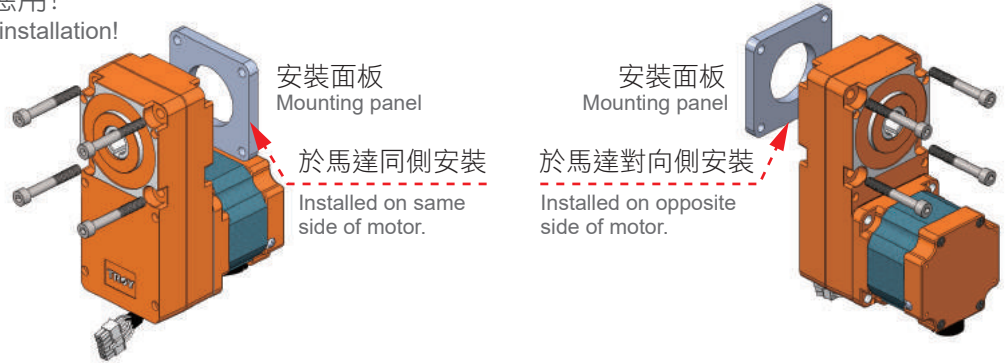
中國
 China

Parallel type Gearbox

平行式減速機 9F□H

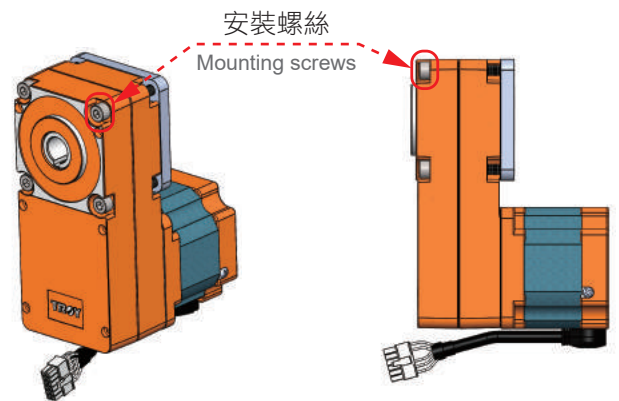
特色4 安裝方式多元化：使用更簡便
Feature 4 Diversification of installation method: Let install easier.

- 雙面皆可鎖固，便於安裝應用!
 Both sides can be locked for easy installation!



特色5 螺絲頭可鎖入殼體內：減少裝配阻礙
Feature 5 Screw head can be locked into the case: Reduce assembly obstruction.

- 螺絲孔加大、加深，避免安裝螺絲凸出造成干涉!
 Enlarge and deepen the screw holes to avoid interference caused by the mounting screws protruding!



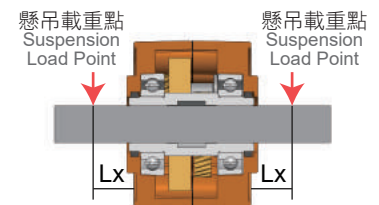
■ 品名看法 Model Name

9	F	5	H																								
安裝面尺寸 Installation Dimension	產品系列 Product Series	減速比 Gearbox Ratio	輸入端型式 Input Side Type																								
9 □90mm	平行式減速機 Parallel Type Gearbox	<table border="1"> <tr><td>5</td><td>1 / 5</td><td>36</td><td>1 / 36</td></tr> <tr><td>10</td><td>1 / 10</td><td>50</td><td>1 / 50</td></tr> <tr><td>15</td><td>1 / 15</td><td>60</td><td>1 / 60</td></tr> <tr><td>20</td><td>1 / 20</td><td>75</td><td>1 / 75</td></tr> <tr><td>25</td><td>1 / 25</td><td>100</td><td>1 / 100</td></tr> <tr><td>30</td><td>1 / 30</td><td></td><td></td></tr> </table>	5	1 / 5	36	1 / 36	10	1 / 10	50	1 / 50	15	1 / 15	60	1 / 60	20	1 / 20	75	1 / 75	25	1 / 25	100	1 / 100	30	1 / 30			適用產品規格： TROY DC無刷馬達齒輪軸型 · 100W(含)以下PH系列 · 200W P系列 Applicable product specification: TROY DC Brushless Motor Pinion Shaft Type · PH Series : ≤100W · P Series : 200W
5	1 / 5	36	1 / 36																								
10	1 / 10	50	1 / 50																								
15	1 / 15	60	1 / 60																								
20	1 / 20	75	1 / 75																								
25	1 / 25	100	1 / 100																								
30	1 / 30																										



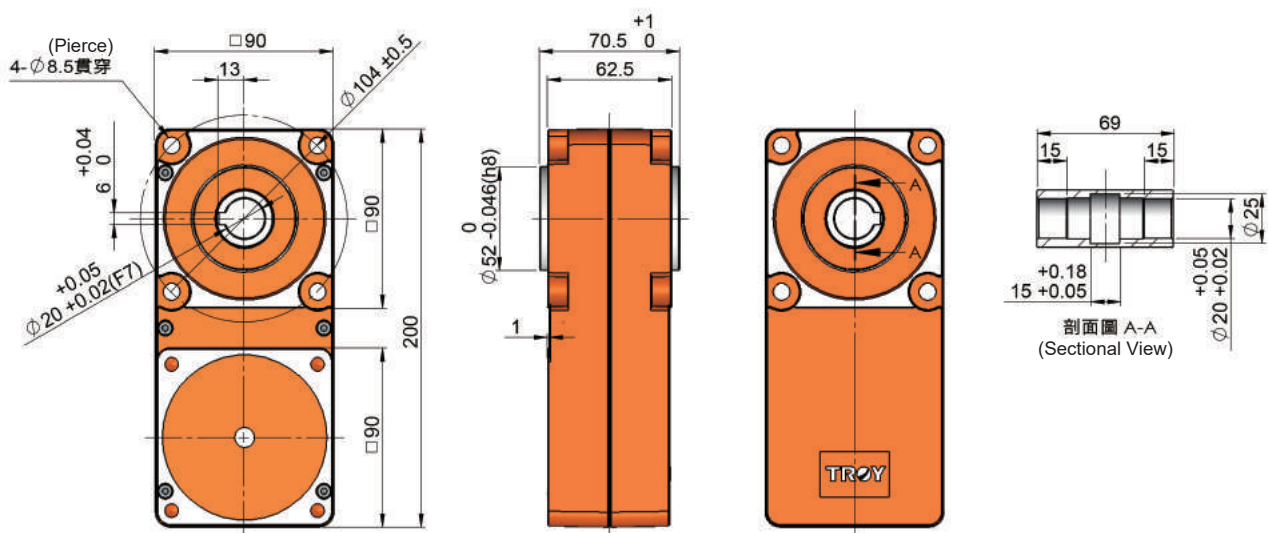
■ 規格 Specification

型式 Type	9F□H										
減速比數 Gearbox Ratio	5	10	15	20	25	30	36	50	60	75	100
傳動效率 Transmission Efficiency	50%	60%	70%	80%			85%			90%	
運轉方向 Rotation Direction	與馬達本體的軸心運轉方向相同 The gearbox and motor output shaft rotate in the same direction.										
容許轉矩 / 容許負載慣性 Allowable Torque / Allowable Inertia	與標準型減速機規格相同(因受限於馬達軸心強度，請參照各類型馬達型錄) The specification same as standard type gearbox. (Due to the limitation of motor shaft strength, please refer to each type of motor catalogues.)										
容許徑向(懸吊)載重 Allowable Radial (Suspension) Load	凸緣安裝面到懸吊載重點的距離(Lx)為： Distance(Lx) between flange surface mounting and suspension load point is : 10 mm 時→975N : 20 mm 時→845N $Lx \text{ mm 時} \rightarrow \square N = \frac{56}{56+Lx} \times 1150N^*$ *1150N為凸緣安裝面位置的容許懸吊載重值 *1150N is the allowable suspension load value of flange surface mounting position.										
容許軸向(推力)載重 Allowable Axial (Thrust) Load	700N										
淨重 / 總重 Net Weight / Gross Weight	2500g / 2800g										



■ 外形尺寸圖 Dimension

(單位Unit : mm)



9F1G18 平行式 減速機

PARALLEL TYPE GEARBOX

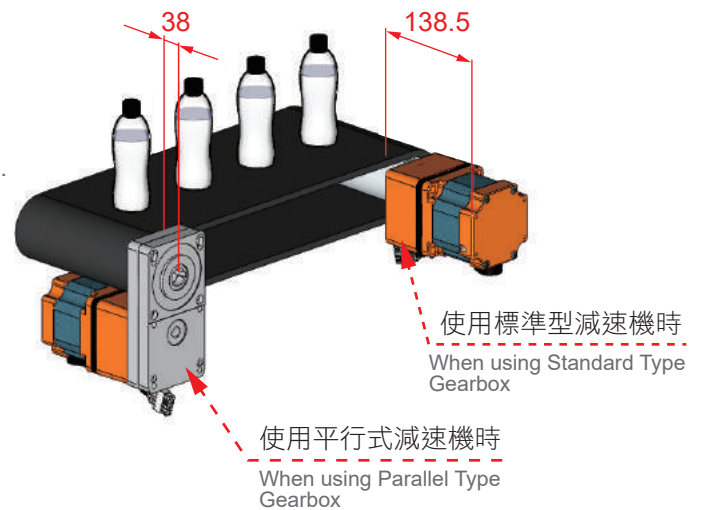


■ 應用特色 Application Features

特色1 Feature 1 平行軸向+薄型設計：節省安裝空間
Parallel axis with thinner design: Save installation space.

■ 節省**100.5mm**的空間，實現機構小型化!
Save 100.5mm space to achieve mechanism miniaturization!

※圖示為9B200P-□搭9D100N減速機為例
※The image is example for motor 9B200P-□ with gearbox 9D100N.

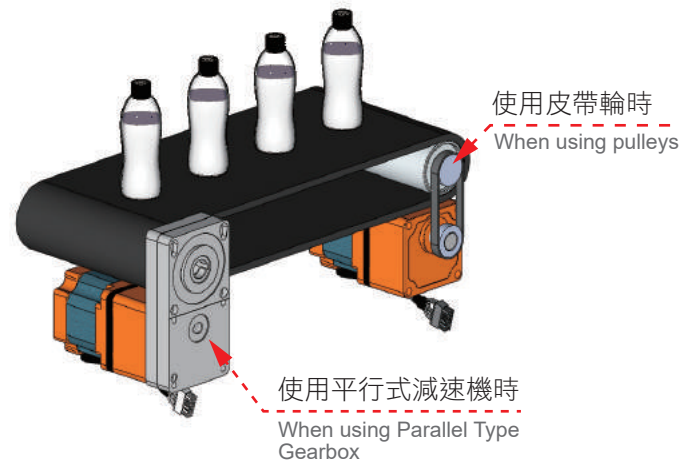


特色2 Feature 2 一體化設計：效率、強度、精度、安全性提升

Integrated design: Enhance efficiency, strength, accuracy and safety.

■ 直結驅動軸傳動的一體化設計：省下一般機構連結使用的零件(例：皮帶輪、齒輪、磁環、鍊條…等)，降低外部環境干擾及組裝工時耗費，提高使用壽命與安全性!

Integrated design of direct drive spindle: Can save the use of components for general mechanism connections (ex. pulleys, gears, magnetic rings, chain...), reduce external environmental interference and assembly time, improve service life and more safety!

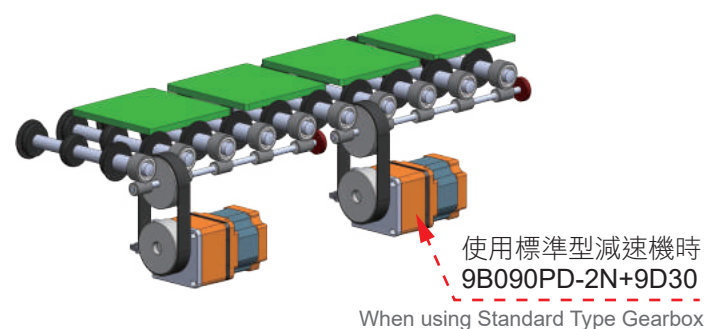


特色3 Feature 3 對稱結構設計：水平載重強度提高，機構更精簡

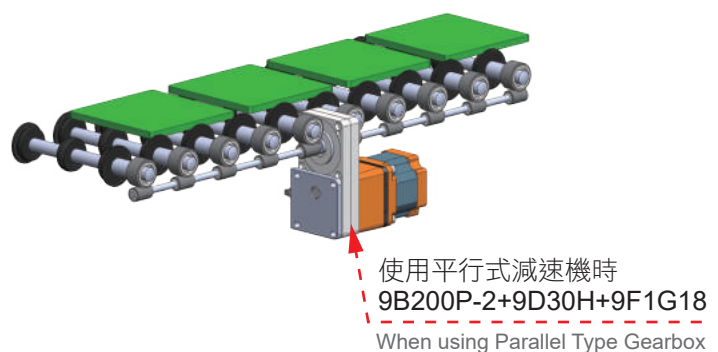
Symmetrical structure design: Enhance horizontal load strength and simplify mechanism.

■ 專利對稱型結構設計：兩側軸偏心率小，可承受相同載重；水平載重強度提升，可精簡馬達、減速機裝配數量，費用、空間再節省!

New type patent symmetrical structure design: Small amount of shaft eccentricity on both sides, and it can hold up the same load; enhance horizontal load strength, reduce the number of motor, gearbox assemblies to save money and space!



VS



新式樣專利證書 New Type Patent Certificate



台灣
Taiwan



中國
China

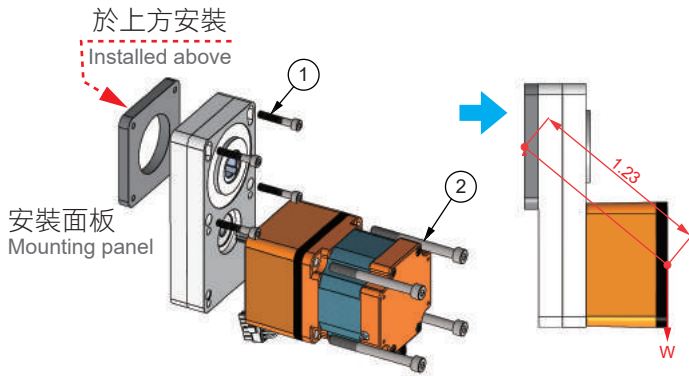


日本
Japan

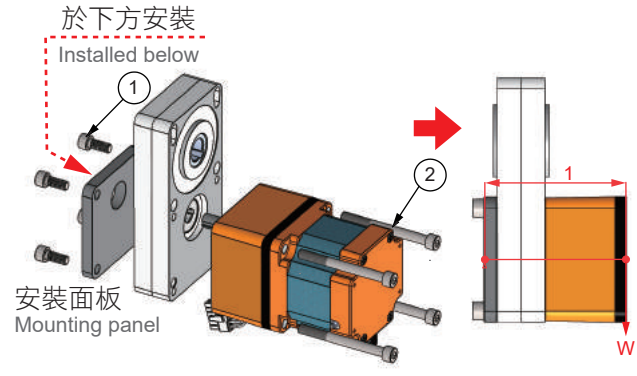


特色4 安裝方式多元化：使用更簡便
Feature 4 Diversification of installation method: Let install easier.

■ 上下皆可鎖固，便於安裝應用！
 Above and below can be locked for easy installation!

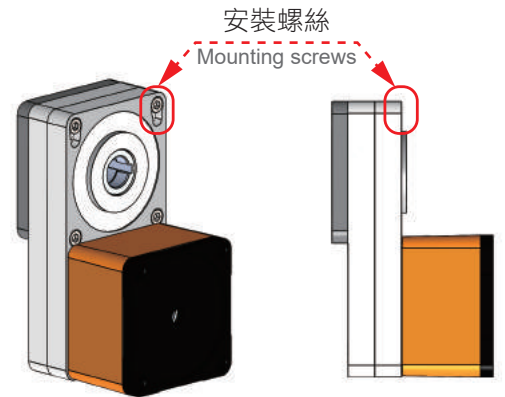


※採下方安裝方式力臂減少23%，可使機構受力更平均、穩定。
 ※Installed below can reduce 23% of the moment arm, let the structure force more average and stable.



特色5 螺絲頭可鎖入殼體內：減少裝配阻礙
Feature 5 Screw head can be locked into the case: Reduce assembly obstruction.

■ 螺絲孔加大、加深，避免安裝螺絲凸出造成干涉！
 Enlarge and deepen the screw holes to avoid interference caused by the mounting screws protruding!



■ 品名看法 Model Name

9	F	1	G	18
安裝面尺寸 Installation Dimension	產品系列 Product Series	減速比 Gearbox Ratio	輸入端型式 Input Side Type	輸入端孔徑 Input Side Aperture
9 □90mm	平行式減速機 Parallel Type Gearbox	1 1 / 1	G 適用產品規格： TROY □90mm 減速機 Applicable product specification: TROY □90mm Gearbox	18 ø18mm

平行式減速機
Parallel Type
9F□H
9F1G18

直交型減速機
Right Angle

Parallel type Gearbox

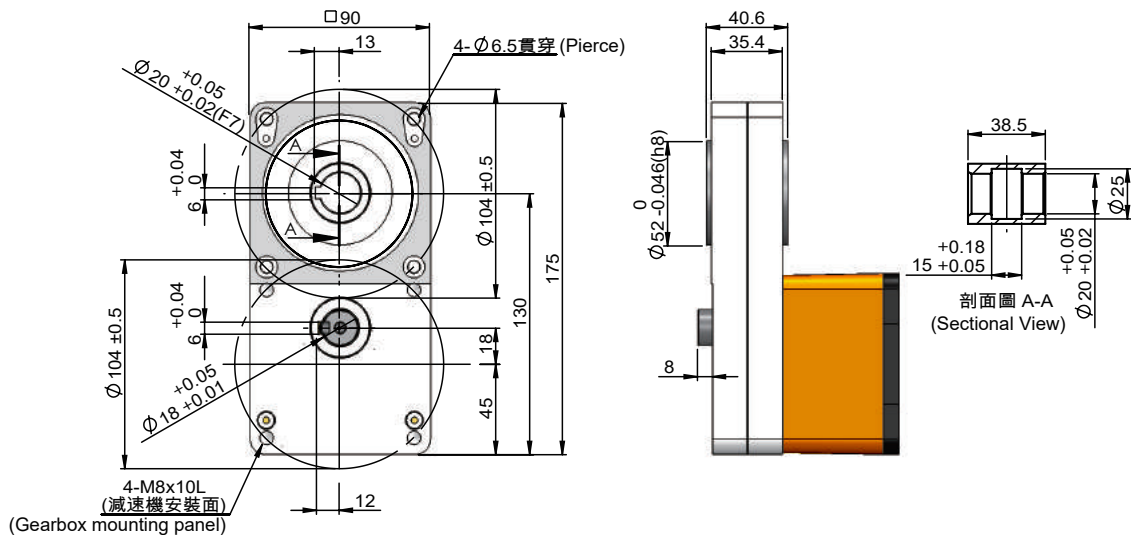
平行式減速機 9F1G18

■ 規格 Specification

型式 Type	9F1G18	
減速比數 Gearbox Ratio	1	
傳動效率 Transmission Efficiency	95%	
運轉方向 Rotation Direction	與馬達本體的軸心運轉方向相反 The gearbox and motor output shaft rotate in the opposite direction.	
容許轉矩 / 容許負載慣性 Allowable Torque / Allowable Inertia	(因受限於馬達軸心強度，請參照各類型馬達型錄) (Due to the limitation of motor shaft strength, please refer to each type of motor catalogues.)	
容許徑向(懸吊)載重 Allowable Radial (Suspension) Load	凸緣安裝面到懸吊載重點的距離(Lx)為： Distance(Lx) between flange surface mounting and suspension load point is : 10 mm 時→350N ; 20 mm 時→285N $Lx \text{ mm 時} \rightarrow \square N = \frac{36}{36+Lx} \times 450N^*$ *450N為凸緣安裝面位置的容許懸吊載重值 *450N is the allowable suspension load value of flange surface mounting position.	
容許軸向(推力)載重 Allowable Axial (Thrust) Load	400N	
淨重 / 總重 Net Weight / Gross Weight	1400g / 1600g	

■ 外形尺寸圖 Dimension

(單位Unit : mm)



TROY



- 客服中心
Customer Service Center
- 物流中心
Distribution Center
- 維修中心
Repair Center
- 經銷商
Distributor

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 Taiwan Area General Agent
 中國區
 China Area
厚利貿易股份有限公司
 SUNHOLY Trading Co., Ltd.
 www.sunholy.com.tw
 sales@sunholy.com.tw



厚利小幫手 應用程式
Sunholy Helper Application



厚利小幫手 應用程式(中國)
Sunholy Helper Application (China)



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