

English:

INNGRIT's Zero Clamp Operator's

Manual

- The instructions below are applicable to: INNGRIT Zero Point Clamping and Positioning System
- Do not use the product in the following systems: Lathes, Punches
- The pressure source must be completely relieved before the oil-pressure pipe can be removed from the Zero clamping system.

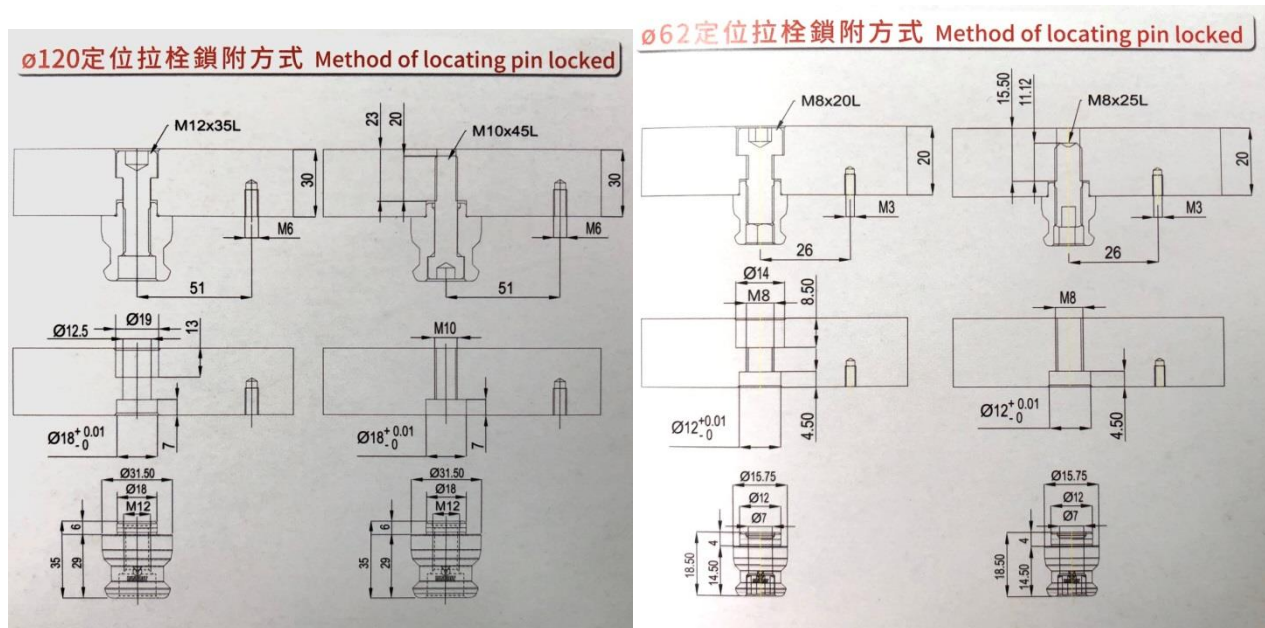
(Note: The pressure gauge mounted in the booster should reset to zero prior to the detachment of the oil pressure pipe.) Applicable to the hydraulic model.

- Ensure that the product is properly covered with a dust cover and the sleeves are filled with a rag when not in use. This prevents iron filings and cutting fluid from directly entering the sleeve.
- Warranty: The warranty period lasts for 1 year after the date of delivery.
- Warranty becomes void for the following reasons:
 1. Cause of failure is not attributable to manufacturing defects
 2. The use of the defective product exceeds the listed warranty period
 3. Damaged label
 4. Failure to adhere to operational instructions when using or disassembling the clamping system
- Please read the operational instruction carefully. INNGRIT is not liable and will not provide compensation for any loss or damage caused by improper personnel operation.
- In order to avoid injury to hands, please do not keep your hand in the middle of the Zero-Clamp system when picking-up and placing-down the pallet.
- Do not disassemble the zero-clamp system without permission. Reassembly affects the zero-clamp's accuracy.
- It is prohibited to use pull-bolts that are not recommended by the manufacturer as it may cause damage to the Zero Clamp System.

- In order to avoid a loss of accuracy, make a conscious effort to avoid strong collision between the surface of the product and the positioning support plate.
- Do not hit the surface of the clamping system with an iron hammer as accuracy will be affected.
- During Processing, do not put your hands into the positioning hole in order to avoid injury.
- In the event the fixture is too heavy, or its geometry is too large, spacers are recommended to provide additional support and stability.
- Apply rust prevention techniques to the zero clamp when not in use. Ensure to use anti-rust oil after use to prevent premature rusting.
- Modifications to the Zero Clamp System without the consent of the manufacturer is not recommended.
- Please avoid tilting when using a crane. Tilting of the Zero Clamp System may result in damages.
- Always ensure to maintain the contact surface and the hole of the Zero Clamp System clean.
- Both a blowing and a tightness detection device are needed for automatic operation. Manual operation is not recommended.
- The weight of the workpiece should be considered in order to prevent excess loading of the Zero Clamp System.
- Maximum torque of \emptyset 62 pull bolt: 10-17 Newton
- Maximum torque of \emptyset 120 pull bolt: 30-40 Newton
- When making exchange plates, please follow the steps below
- Step 1. Use the schematic diagram of the positioning studs to machine 2 their holes in the fixture material.
- Step 2: After the positioning stud hole processing is completed, lock the positioning stud. (Please refer to the attached torque value)
- Step 3: Attach the fixture material with the positioning studs to the Zero Point Clamping Module on the machine.
- Step 4: After the locking is completed, you can start processing the exchange plate's shape, groove, hole position, etc.,
- Complete multiple sets of fixtures at the same time to ensure the consistency of the size of the fixture.

- Maximum torque of $\varnothing 62$ pull bolt: 10-17 Newton
- Maximum torque of $\varnothing 120$ pull bolt: 30-40 Newton

Warning: The upper plate(fixture) of the $\varnothing 62$ type clamping module is recommended to weigh less than -3kg. Each side can extend a maximum of 15mm and the fixture should have a maximum thickness of 25-35mm



中文:

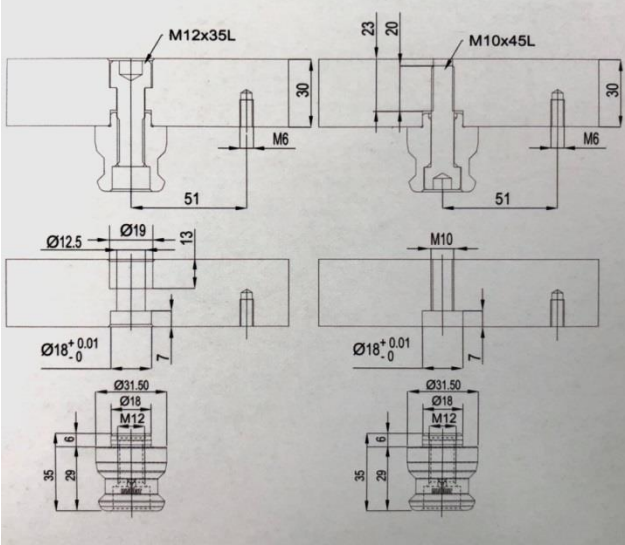
原點定位夾持系統使用須知

- 本使用須知適用於：英貴爾原點定位夾持系統。
- 產品請勿於下列地方使用：車床、沖床。
- 氣壓源需洩壓完全後才可將油壓管從原點定位夾持系統上拆除
(增壓器上氣壓源壓力表確認歸零即可)。(此項油壓式適用)
- 產品未使用之情況下，需使用防塵蓋蓋住或以抹布填滿套筒位置，以避免鐵屑及切削液直接進入套筒處。

- 保固期間：保固有效期間自購買日起一年。
- 產品保固之除外條款：若有以下情況，本公司可以免除保固之責任
 - 1.客戶提供之故障品故障原因經確認並非可歸責於本公司者。
 - 2.故障品已使用超過保固時間或出廠日期標籤遭破壞者。
 - 3.未依公司規定使用及自行拆裝者。
- 請詳閱本使用須知，如因個人操作不當造成之任何損失，本公司概不負責，且對使用者及第三者的損失索賠本公司亦不負有任何賠償責任。
- 當取放治具時，請勿將手一直放置在原點定位夾持系統以及治具中間，以免發生夾手情形。
- 不得私自拆卸原點定位夾持系統,否則將失去該產品的保修資格。
- 禁止錯誤使用定位拉栓,以免造成產品精度損失。
- 使用過程中,盡可能避免本產品的表面及定位支撐盤強烈碰撞,以免造成精度損失。
- 請勿拿鐵鎚敲打原點定位夾持系統表面而影響精度問題。
- 加工時，請勿將手放進定位孔裡面，避免發生不必要的危險。
- 治具如果太重時，客戶可自行增加引導柱來做輔助功能避免模組碰傷及撞傷。
- 當機台不需使用原點定位系統時，請做防鏽步驟避免產品放太久而生鏽。並且使用完畢之後請上防鏽油。

- 任何未經原廠同意之使用方法，均不建議客戶自行變動。
 - 使用固定式起重機(天車)掛吊時請避免傾斜掛吊，以免損壞原點定位夾持系統。
 - 使用時請將原點定位夾持系統接觸面和孔內清除乾淨。
 - 吹氣裝置和密著檢知需搭配自動控制使用，不建議單獨手動使用。
 - 原點定位夾持系統使用時需考慮量治具重量，避免因治具過重而造成使用上的困難。
 - $\varnothing 62$ 定位拉栓-最大扭力值: 10~17 N.m
 - $\varnothing 120$ 定位拉栓-最大扭力值:30~40N.m
- 警語:62 型上板(治具)建議重量-3kg 以內,往外延伸各單邊 25mm,治具厚度 20-25mm
- 警語:120 型上板(治具)建議重量-10kg 以內,往外延伸各單邊 50mm,治具厚度 25-30mm
- 製作治具時，請依照以下步驟承製。
- 步驟一、依照定位拉栓安裝示意圖，於治具素材加工 2 個定位拉栓孔。
- 步驟二、定位拉栓孔加工完成後，鎖附定位拉栓。(請參照鎖附扭力值)
- 步驟三、將已安裝定位拉栓的治具素材鎖附於機台上的原點定位夾持模組。
- 步驟四、鎖附完成後，即可開始加工治具形狀、溝槽、孔位...等，
- 並同時完成多組治具，以確保治具尺寸的一致性。

ø120定位拉栓鎖附方式 Method of locating pin locked



ø62定位拉栓鎖附方式 Method of locating pin locked

