



VR type

動力定心虎鉗

POWER CENTERING VISE

使用說明書

INSTRUCTION MANUAL

Original instructions




重要 Important Notes :


- 請仔細閱讀本說明書, 充分瞭解之後再使用本製品。
本說明書請妥善保管, 製品使用者變更時, 請將此說明書交給新的使用者。
- Before you use the product. Please read this instruction carefully.
Keep the instruction carefully. If the user of the product altered,
please hand the instruction to the new user.



◎序言

為了確保你的安全，在使用本產品之前，請務必詳閱本說明書內所記載之警告事項，並特別注意文中此  圖形符號下之說明。

◎ INTRODUCTION

For your safety, please be sure to read the warnings in this manual carefully before using this product, and pay special attention to the instructions below  graphical symbol.



若未依照此符號底下的說明來操作機械將引起立即的危險，導致重大傷害或死亡。

Indicates an imminently hazardous situation which, if not avoided, could result in death or serious injury.



若未依照此符號底下的說明來操作機械將引起潛在的危險，導致重大傷害或死亡。

Indicates an potentially hazardous situation which, if not avoided, could result in death or serious injury.



若未依照此符號底下的說明來操作機械將引起潛在的危險，導致中輕度的傷害。

Indicates an potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



依照此符號底下的說明事先了解製品的性能，可避免不正確的操作夾頭。

Indicates for chuck performance and avoiding errors of mistake.

目 錄

CONTENTS

1. 動力定心虎鉗 規格	3	1. Speciations of Power Centering Vise	3
2. 動力定心虎鉗 零件表	4	2. Parts list of Power Centering Vise	4
3. 螺栓鎖緊的安裝順序	6	3. Bolt tightening steps	6
4. 使用上的注意事項	6	4. Precautions	6
5. 故障排除	8	5. Trouble and troubleshooting	9

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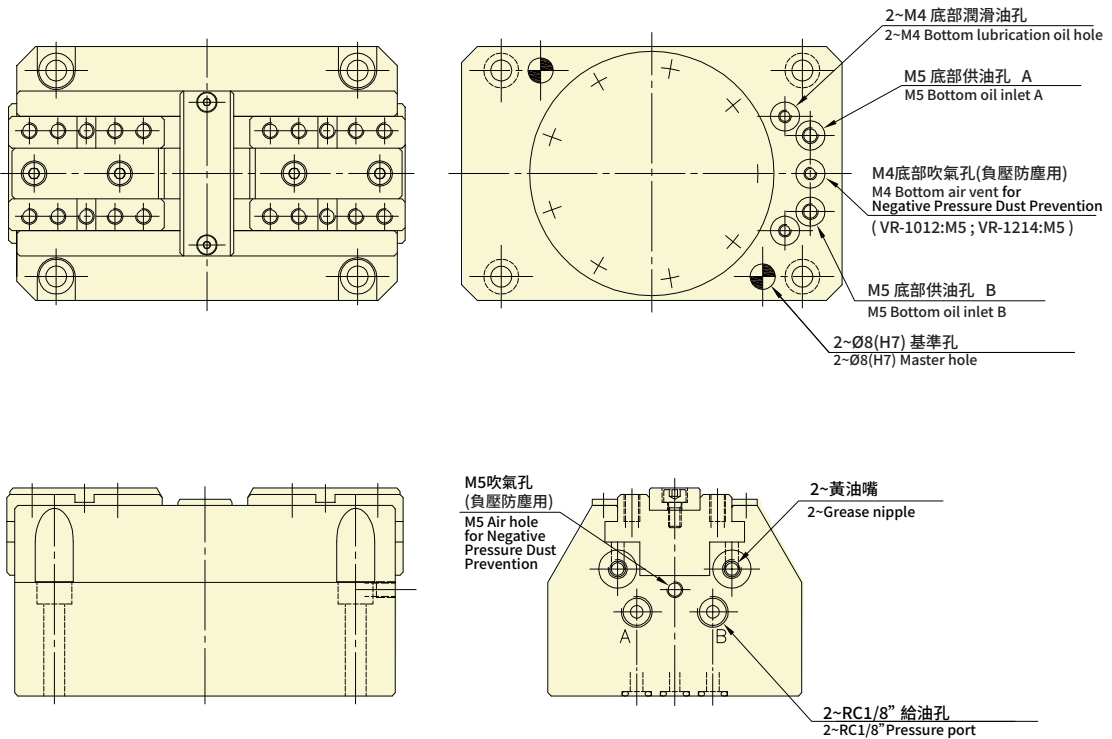


*2D圖檔(PDF、DWG格式)、3D圖檔(STEP格式) 可以從官網下載。

*You can download the outline drawing (in pdf or dwg format) and 3D step at AUTOGRIP WEB.

1. 動力定心虎鉗 規格

1.Speciations of Power Centering Vise

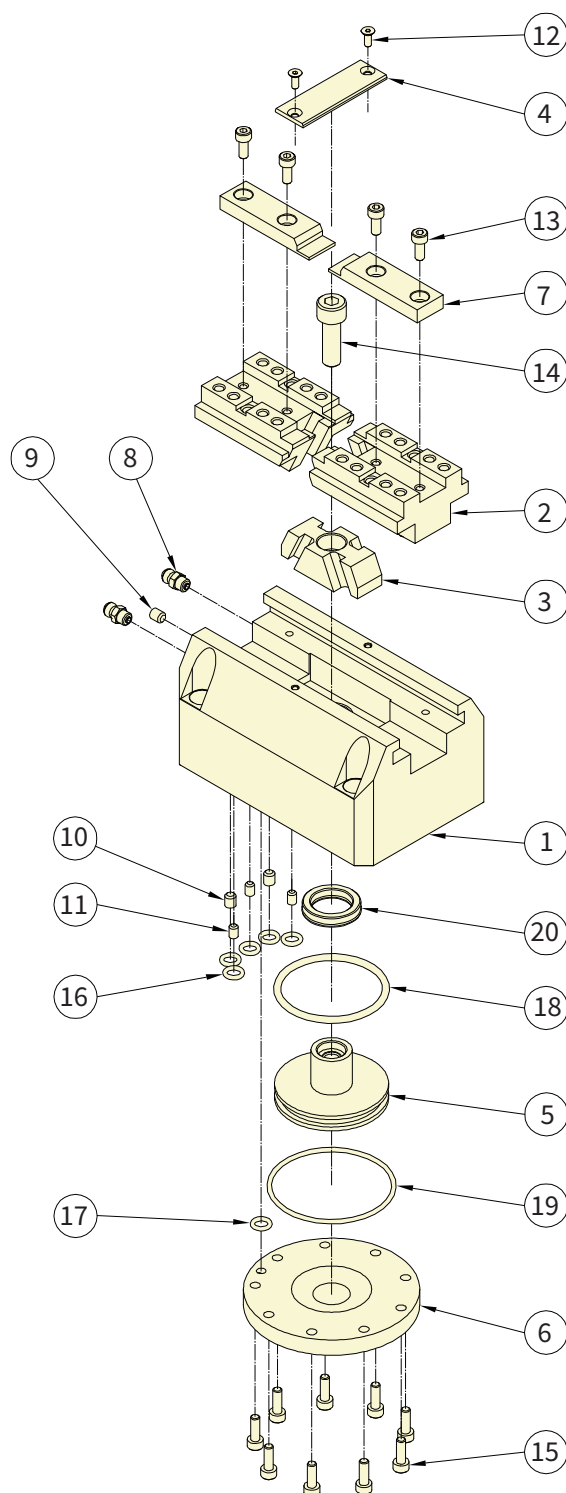


保留規格修改的權利
Subject to technical changes

型號	爪行程 (直徑)	最大夾持直徑	最大夾持力 Max. clamping force		最大使用壓力 Max. pressure		夾爪最大高度	重量
Model	Jaw stroke (Dia.)	Max.Chucking (Dia.)	氣壓 Pneumatic	油壓 Hydraulic	氣壓 Pneumatic	油壓 Hydraulic	Max. jaw height	Weight
	mm	mm	kN (kgf)	kN (kgf)	MPa(kgf/cm ²)	MPa(kgf/cm ²)	mm	kg
VR-808	8	100	2.0 (200)	7.7(785)	0.9(9)	2.1(21)	60	3.55
VR-1012	12	120	4.4 (448)	12.2(1244)	0.9(9)	2.1(21)	60	7
VR-1214	14	160	8.6 (876)	31.1(3171)	0.9(9)	2.1(21)	60	12

2. 動力定心虎鉗零件表

2. Parts list of Power Centering Vise



零件表 Parts List

No.	零件名稱	Name of parts	Q'ty
1	本體	Body	1
2	主爪	Master jaw	2
3	中仁	Wedge plunger	1
4	防塵蓋	Dust Cover	1
5	活塞	Piston	1
6	後蓋	Cover	1
7	定位鍵	Lock Key	2
8	黃油嘴	Grease nipple	2
9	六角孔固定螺絲	Hex. Socket set screw	1
10	六角孔固定螺絲	Hex. Socket set screw	2
11	六角孔固定螺絲	Hex. Socket set screw	3
12	防塵蓋固定螺絲	Hex. Socket cap bolt	2
13	六角孔圓頭螺栓	Hex.socket cap bolt	4
14	六角孔圓頭螺栓	Hex.socket cap bolt	1
15	六角孔圓頭螺栓	Hex.socket cap bolt	9 or 12

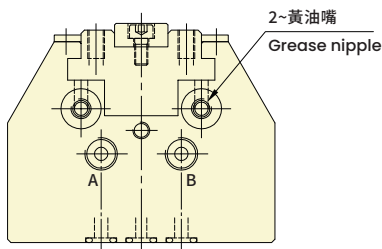
消耗零件表 Consumable Parts List

No.	零件名稱	Name of parts	VR-808	VR-1012	VR-1214	Q'ty
16	O 型環	O-Ring	FOR100600	FOR100600	FOR100600	5
17	O 型環	O-Ring	FOR100600	FOR100600	FOR100600	1
18	O 型環	O-Ring	FOR204500	FOR206500	FOR209000	1
19	O 型環	O-Ring	FOR305300	FOR307000	FOR309500	1
20	油封	Oil Seal	FUR10180K	FUR10200K	FUR10220K	1

3. 螺栓鎖緊的安裝順序：

3.1 安裝動力定心虎鉗於工作床台上

- 請依下列順序(附圖 1) 鎖上螺絲 1-2-3-4, 鎖緊力量不平衡可能會導致本體變形, 產生主爪卡死現象。



3. Bolt tightening steps

3.1 Mount the Power Centering Vise on the machine.

- Tighten the installation bolt of procedure(Fig.1) : 1-2-3-4, the tightening strength unequally may cause the body to deformed, as well caused seize phenomenon for the master jaw.

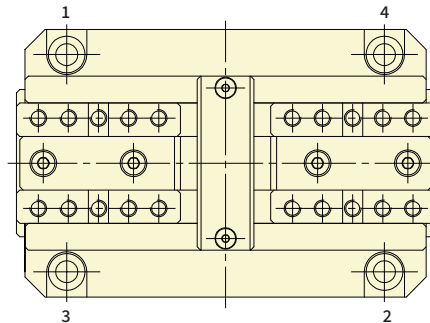


Fig.1



WARNING
警告

- 鎖緊螺絲時, 請依照標準力矩鎖緊, 如果鎖緊力矩不足或太大, 將造成螺絲斷裂, 工作物飛散產生危險。
- 請使用附屬之螺絲。

- Tighten the mounting bolt according to the specified torque. If tightening torque is insufficient or too strong, bolts are broken. Also, the workpiece scatters, thus resulting in danger.
- Use only attached bolt.

螺絲規格 Bolt size	鎖緊力矩 Tightening torque
M6	12.7 N · m (1.3 kgf · m)
M8	38.2 N · m (3.9 kgf · m)

4. 使用上的注意事項

4.1 動力定心虎鉗作動方向及行程確認

- 將液壓油管接入油壓缸入油孔, 用手動操作動力定心虎鉗的開、合, 確認動力定心虎鉗作動方向是否符合。
- 檢查未來持工作物時, 手動操作動力定心虎鉗的開、合時可達最大工作行程。

4. Precautions

4.1 The move direction and stroke confirm of the Power Centering Vise

- The hydraulic oil pipe to insert the cylinder enter oil hole, open, shut off for manual operation of the Power Centering Vise to confirm whether the Power Centering Vise does to accord with the moving direction.
- Check the worker when it's not clamp, open, shut for manual operation of the Power Centering Vise to can reach max working stroke.



CAUTION
注意

4.2 潤滑及保養

- 長時間定期地潤滑可保持動力定心虎鉗的壽命，錯誤的潤滑將導致夾持力減弱、精度不良、磨損及卡死現象，故必須正確的潤滑。

4.2 Lubrication and maintenance

- To maintain the Power Centering Vise for a longer life of time, it is necessary to lubricate the Power Centering Vise on a regular basis. Inadequate lubrication causes malfunction at low hydraulic pressure, reduces gripping force and affects gripping accuracy, and causes wear and seizure. Consequently, securely lubricate.

潤滑的處所 Section to be lubricated	潤滑的處所 Grease useds	潤滑週期 Lubrication cycle
使用潤滑油槍將潤滑油注入每一個油嘴。	二硫化鋇潤滑油 BLACK LINE 鉬基	每日一次，但如果在大量使用大量的水性切削液加工中時，需要更多的潤滑，請依不同的情況來決定。
Apply grease from the grease nipple with a grease gun.	Moly Kote EP Grease (DOW CORNING CO.,LTD) BLACK LINE molybdenum	Once a day. However, when the chuck is operated a large amount of water soluble cutting oil is used, more of lubricated is needed according to service conditions.

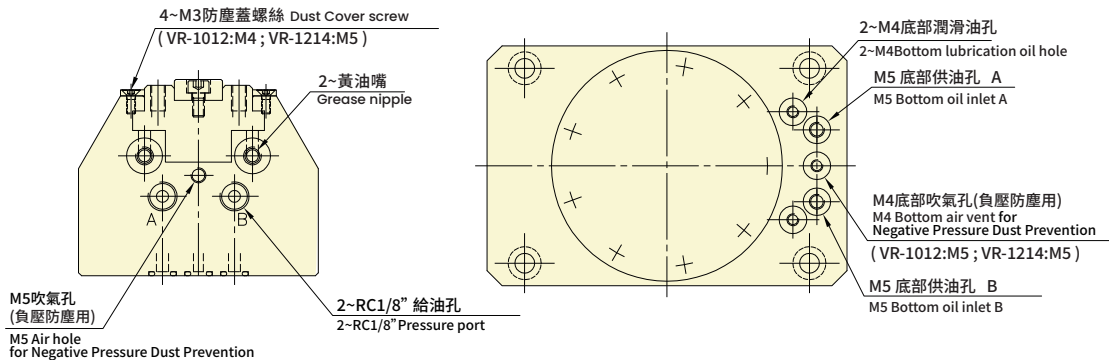


Fig.2

- 加工完後務必以風槍或類似的工具清潔動力定心虎鉗本體及滑道面。清潔時，請卸下防塵蓋固定螺絲，並取下防塵蓋，同時將主爪張至最開的位置，即可輕易清潔夾具內部積屑。(附圖 2, 附圖 3)
- 避免因生鏽而降低夾持力，需使用防鏽之切削油。
- After processing, be sure to clean the main body and sliding surfaces of the Power Centering Vise with an air gun or similar tool. When cleaning, please remove the Dust Cover Socket set screws and take off the Dust Cover. At the same time, open the main claw to its widest position, allowing for easy cleaning of debris inside the clamp. (See Fig 2 and Fig 3).
- To prevent a decrease in clamping force due to rust, it is necessary to use anti-rust cutting oil.

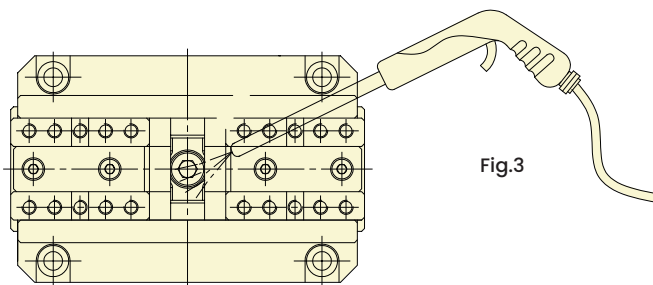


Fig.3

5. 故障排除

- 如動力定心虎鉗故障，請停下來檢查，並依下列情況來處置。

不正常情況	可能原因	對策
動力定心虎鉗不能動作	動力定心虎鉗零件損壞	分解動力定心虎鉗及更換損壞零件。
	滑動部位被卡住	分解動力定心虎鉗及取出被卡住的部位，以油石修整之或更換。
	油壓缸沒有動作	檢視油壓系統，如減壓閥、洩壓閥 ... 等。
主爪的全行程不足	內部積存了太多的雜屑	分解動力定心虎鉗後清理。
	液壓油雜屑過多	分解油壓缸後清理，並清理液壓油箱，更換新的液壓油。
工作物有滑動的情況	主爪的夾持行程不足	重新夾持工作物使得主爪的位置於行程的中點。
	主爪的夾持力不足	檢視是否達到所設定的油壓壓力。
	切削力量太大	重新計算一次切削力量，確認是否符合此動力定心虎鉗的規格。
	主爪軌道的潤滑油不足	重新潤滑主爪軌道，並在沒有工作物的情況下操作動力定心虎鉗數次。
精度不良	主爪與上爪之間有沙塵、切削、毛邊...等干涉	取下上爪並且完全清理。
	上爪固定螺絲沒有鎖緊	依適當力矩鎖緊。
	夾持力過大、使工作物變形	降低夾持力到適當程度，使得動力定心虎鉗可以夾緊工作物且不致於變形。
	上爪高度太高	降低上爪高至適當高度。

- 如欲無法自行處理或特殊狀況時，請通知您的經銷商或寄回本公司處理，切勿任意拆解更細部之零件。

5. Troubleshooting

- If the Power Centering Vise malfunctions, stop the lathe and try the following countermeasures.

Problem	Possible Reasons	Countermeasures
Power Centering Vise will not work	Power Centering Vise part is damaged.	Disassemble Power Centering Vise and replace part.
	The sliding part is stuck.	Disassemble and repair Power Centering Vise damaged part with oil stone or make change.
	Hydraulic cylinder is not working.	Examine the hydraulic system, pressure reduction valve, over valve.... etc.
Insufficient master jaw total stroke	Too much swarf in chuck.	Disassemble and clean Power Centering Vise.
	Too much miscellaneous bits of hydraulic oil.	Disassemble hydraulic cylinder and clean hydraulic tank, replace new hydraulic oil.
Workpiece slippage	Insufficient master jaw clamping stroke.	Make arrangement such that when workpiece is chucked the master jaw will jaw will be in the stroke center.
	Insufficient master jaw force.	Check that air pressure adequately set.
	Cutting force is too high.	Calculate cutting force and confirm whether the force matches Power Centering Vise specifications.
	Insufficient lubrication on master jaws and each slidway.	Lubricate from the grease nipple and chucking operation of jaws several times without workpiece in the chuck.
Poor accuracy	Foreign mater is caught in serrations between master and top jaws, dust.... ect.	Remove top jaw and clean serrations thoroughly.
	Top jaw mounting bolts are inadequately tightened.	Tighten bolts to correct torque.
	Workpiece is deformed by too much gripping force.	Reduce gripping force to prevent deformation.
	Top jaw is too high.	Reduce height of the top jaw to the standard.

- Please contact your local distributor or agent. If no distributor or agent locally, then contact Autogrip Machinery Co., Ltd. On receipt of the product, we will inform you immediately of repair chedule. Please call us if you find any problems.



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