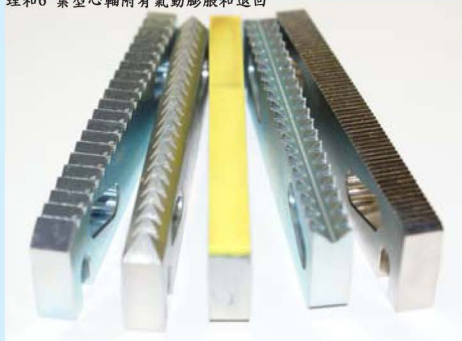


# 符合人體工程學的处理系統

## Ergonomic Handling Systems



Left to right: 6" mandrel with pneumatic retract, 3" toggle retract, 3" "T" handle retract, 50 mm urethane mandrel with locking toggle handle and 6" leaf-type mandrel with pneumatic expand and retract.  
從左到右依次為：6"附有氣動退回軸心，3"切換退回，3"“T”把手退回50mm聚氨酯芯軸與鎖定切換處理和6"葉型心軸附有氣動膨脹和退回



Numerous gripper surface profiles are available. Left to right: Standard, Piranha, Urethane, Shark and Fine-tooth.

許多夾具表面輪廓可供選擇。從左到右依次為：標準，食人魚，氨基甲酸酯，鯊魚和細牙

升降·翻轉·運輸·荷載·卸貨·堆積·儲存·包裝·貨盤

LIFT · TURN · TRANSPORT · LOAD · UNLOAD  
· STACK · STORE · PACKAGE · PALLETIZE

"Back Injuries - Nations Number One Workplace Safety Problem." The U.S. Department of Labor reports that more than one million workers suffer back injuries in the U.S. each year, costing industry billions of dollars on top of the pain and suffering borne by employees. Ergonomic Handling Systems will minimize or eliminate the risk of operator injury and maximize productivity and profits.

- **Low Cost** 低成本
- **Modular Design** 模塊化設計
- **Simple Function** 功能簡單
- **Made In U.S.A.** 美國製造
- **Safe, Easy and Economical** 安全，容易和經濟

Universal Mandrels are at the heart of all handling systems, enabling our devices to lift and turn rolled materials by securely gripping the inside of the roll's paper, plastic or metal core, without slipping, and without substantial damage to the core.

Universal Mandrels fit all types of handling equipment and can be changed in seconds without tools.

Universal Mandrels are fail-safe. Grippers expand automatically by spring force. Simply insert the mandrel into the core and lift the roll. The grippers remain expanded until the load is fully supported. Only then can the grippers be retracted by the operator.

Grippers can be retracted manually with toggle or "T" handles attached directly to the mandrel, or remotely for increased operator convenience with pneumatic, manual or electric retractors.

Universal Mandrels are available with a number of gripper surface profiles to ensure the safest grip with the least possible damage to the core.

Important Note! cannot guarantee the performance of its grippers in all applications. Some applications may require experimenting with different gripper surface profiles to find the best fit with your cores. Consult for recommendations of which gripper type is best for your application.

### Standard Features: 標準功能

Rugged and durable  
Automatic expansion "fail-safe"  
Change sizes with no tools  
Universal - fits all equipment  
Easy to change wear parts  
Aluminum or alloy steel construction  
Anodized or nickel plated finish  
Made in U.S.A.

- 堅固耐用
- 自動擴展“故障安全”
- 無需工具即可更換尺寸
- 通用 - 適合所有設備
- 容易更換磨損件
- 鋁或合金鋼結構
- 陽極氧化處理或鍍鎳拋光
- 美國製造

### Specifications: 技術指標

Maximum load capacity: Up to 2,200 lbs (1000kg)  
depending on handling equipment type  
Core diameters 2" (50 mm) to 16" (406 mm)  
最大負載能力：高達2200磅（1000公斤）  
取決於類型的核心的直徑2"（50mm）至16"（406 mm）

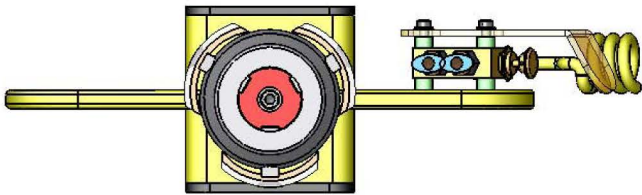
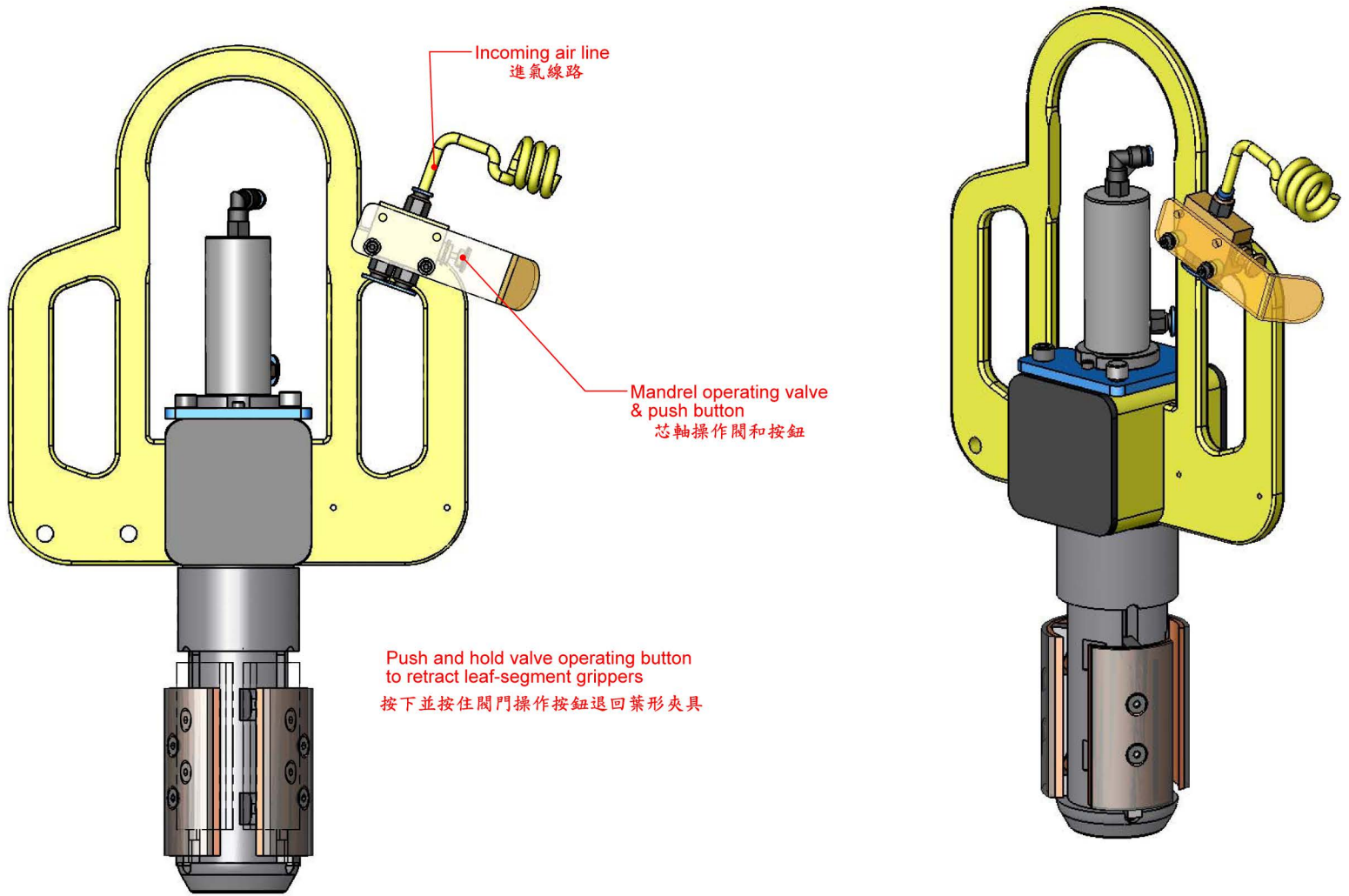
### Options & Accessories: 選項和配件

Custom Length  
Core Stop  
Bumper Nose  
Pneumatic and Manual Retract Kit  
Spare Mandrel Holder  
Powered Remote Retract  
Rollers  
Stainless Steel Hardware  
Rotating  
Mandrel Insertion Depth Graduations  
High Use Upgrade Package

- 定制長度
- 核心停止
- 防撞鼻
- 氣動和手動退回套件
- 芯軸托架備件
- 電動遠端退回
- 滾筒
- 不銹鋼五金
- 旋轉
- 芯軸的插入深度刻度
- 高使用升級組件

**Each item sold separately!**

每個項目單獨出售!



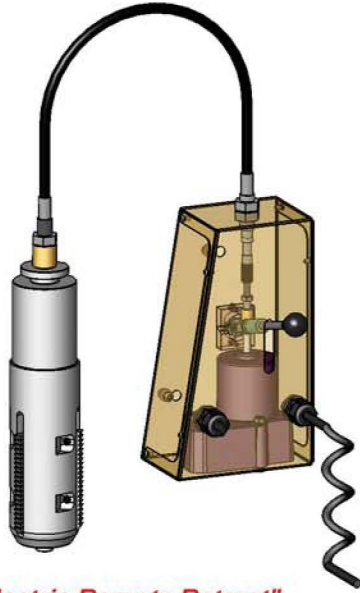
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L-10530	VRL-2200 vertical roll lifter (no cross bar)	1
2	L-10523	3" pneumatic leaf-segment mandrel w/ increased expansion	1
3	L-10326R1	Pneumatic Double-Acting Retraction Kit	1

# 芯軸選項及配件

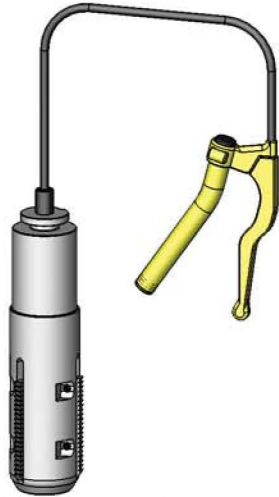
## Mandrel options & Accessories

### REMOTE RETRACT OPTIONS

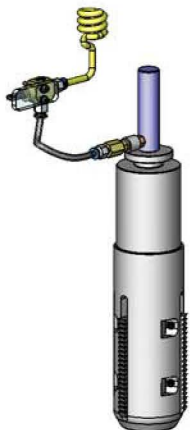
遠程退回選項



**"Electric Remote Retract"**  
電動遙控退回



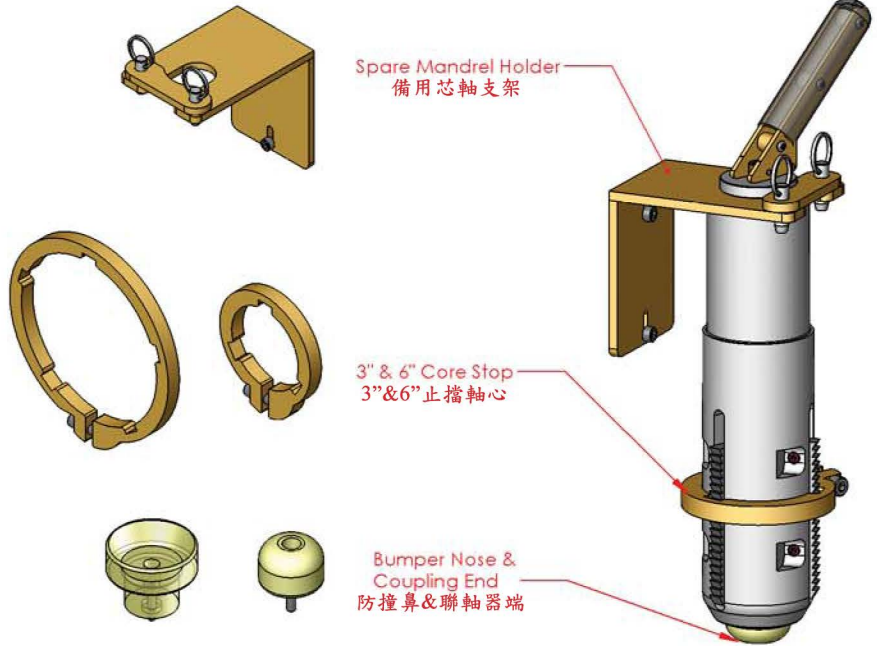
**"Manual Remote Retract"**  
手動遙控退回



**"Pneumatic Remote Retract"**  
氣動遙控退回

### ACCESSORIES OFFERED

提供配件



Spare Mandrel Holder  
備用芯軸支架

3" & 6" Core Stop  
3"&6"止擋軸心

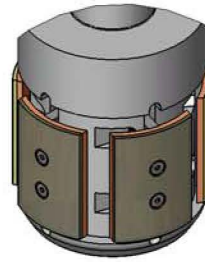
Bumper Nose & Coupling End  
防撞鼻&聯軸器端

### GRIPPER MODIFICATIONS OFFERED

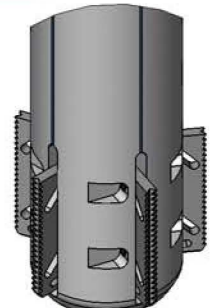
提供夾具修改



"Transfer Rollers"  
(replaces one gripper)  
運送靴  
(更換一夾具)



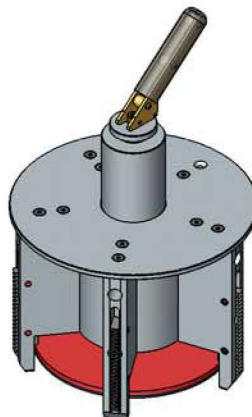
"Leaf Segments"  
(Urethane)  
葉片段(氨基甲酸乙酯)



"Increased Expansion Range"  
and  
"Indicator Marks"  
增加範圍擴大和指示標誌

### SAMPLE CUSTOM MANDRELS

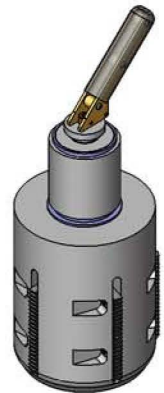
定制芯軸樣本



"LT Standoff Mandrel"  
(large core diameters)  
(light weight design)  
LT防區外芯棒  
(大軸心直徑)  
(輕重量設計)



"Custom Couplings  
and Spindle Alignment  
Features Available"  
定制聯軸器和可用的主軸定位功能



"Rotating Mandrel"  
(mandrel rotates to  
allow material winding)  
旋轉芯軸  
(芯軸轉動, 使芯軸捲繞)

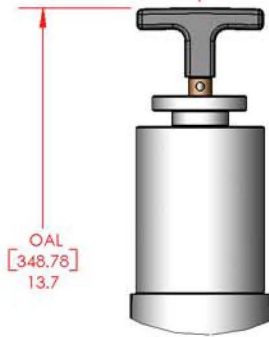
# 3寸標準使用在3"內徑心孔

## 3 Inch Standard Mandrel For use with 3" ID cores

Fail-safe, spring force expanded grippers  
 Aluminum body, clear hardcoat anodized  
 Lightweight design, approx. {8 lb. {3.6 Kg}}  
 Dimensions subject to change  
 \* Custom configurations available

### 回縮的方法 RETRACTION METHODS

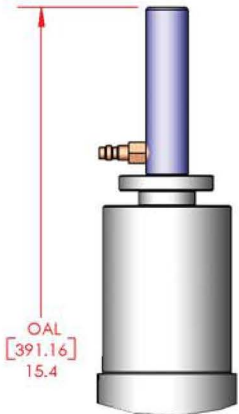
拉  
 PULL



#### "T-Handle"

Most common machines:  
 (MRT, HRL, VRL)  
 T拉手

最常見的機器(MRT, HRL, VRL)



#### "Pneumatic"

Most common machines:  
 (MRT, HRL, VRL, ERT)

Continuous air supply present (50 psi min.)  
 Pneumatic Retract Kit Sold Separately  
 氣動

最常見的機器(MRT, HRL, VRL, ERT)  
 連續供氣存在(50磅分鐘)氣動收回套件單獨出售



#### "Remote" 遠程

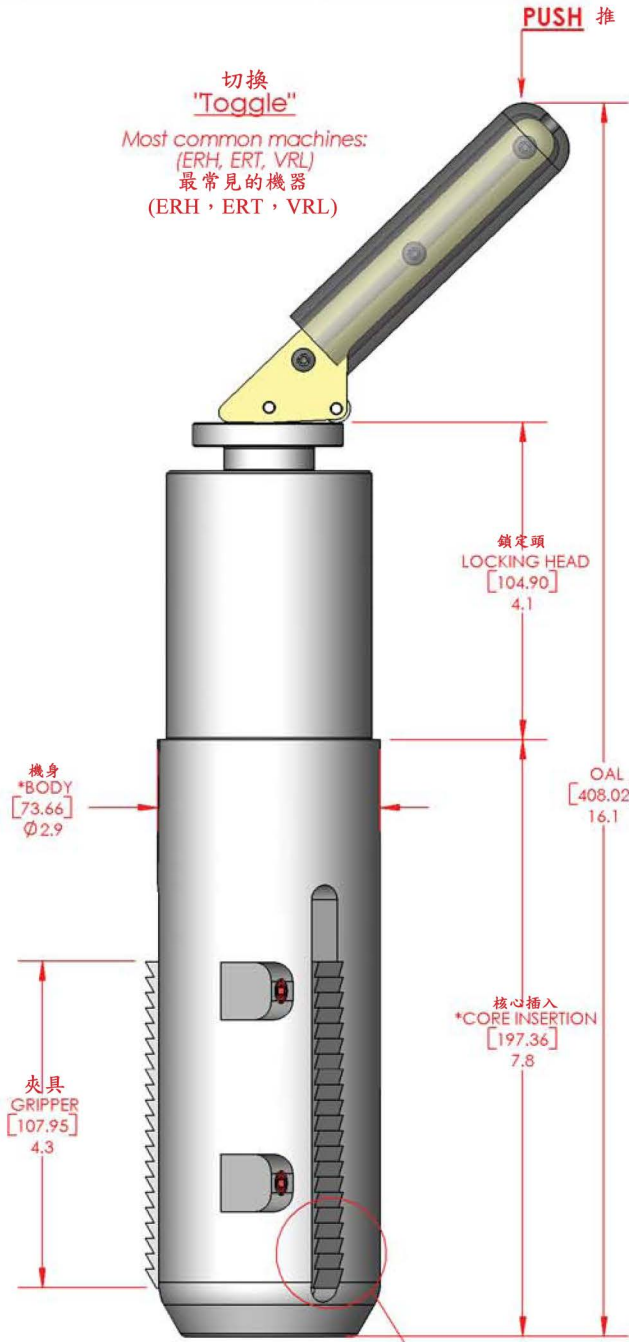
Most common machines:  
 (ERH, ERT)

Electric Remote Retract (24VDC, 110VAC)  
 or  
 Manual Remote Retract (Cable & Hand Lever)  
 Remote Retract Kits Sold Separately

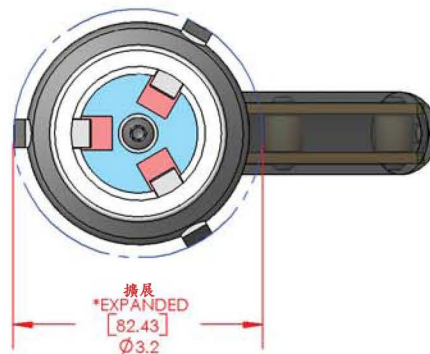
最常見的機器(ERH, ERT)電動遙控收回(24VDC, 110VAC)或  
 手動遙控收回(電纜&手柄)遠程收回套件單獨出售

### 切換 "Toggle"

Most common machines:  
 (ERH, ERT, VRL)  
 最常見的機器  
 (ERH, ERT, VRL)

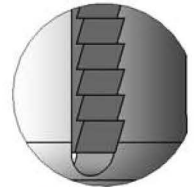


### GRIPPER PROFILE 夾具外形



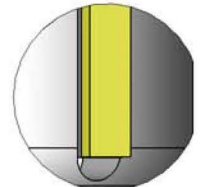
擴展  
 \*EXPANDED  
 [82.43]  
 Ø3.2

### 夾持器型材 GRIPPER PROFILES



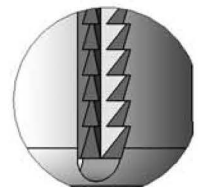
#### "Standard"

Cardboard cores  
 Most common applications  
 標準  
 紙板芯最常見的應用



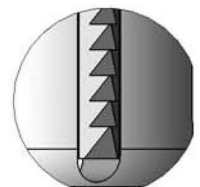
#### "Urethane"

Steel, Aluminum Cores  
 Non-marking 60-70 shore A  
 氨基甲酸乙酯  
 鋼, 鋁芯無傷痕60-70A級



#### "Shark Tooth"

PVC, Hard Cardboard Cores  
 Double Edge Contact  
 鯊魚牙  
 聚氣乙烯, 硬紙板芯雙重邊緣接觸



#### "Piranha Tooth"

PVC, Hard Cardboard Cores  
 Single Edge Contact -High Wear  
 食人魚牙  
 聚氣乙烯, 硬紙板芯單邊緣接觸-高耐磨

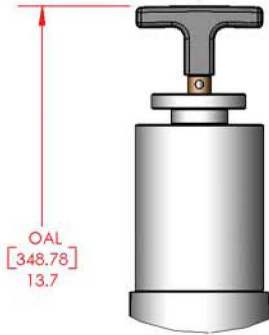
# 6寸標準使用在6"內徑心孔

## 6 Inch Standard Mandrel For use with 6" ID cores

Fail-safe, spring force expanded grippers  
 Aluminum body, clear hardcoat anodized  
 Lightweight design, approx. (20 lb. (9 Kg))  
 Dimensions subject to change  
 \* Custom configurations available

### 回縮的方法 RETRACTION METHODS

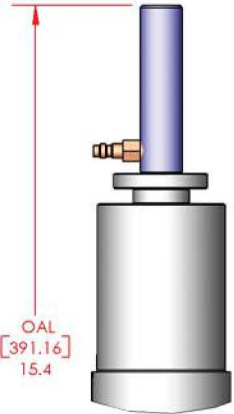
拉  
 PULL



"T-Handle"

Most common machines:  
 (MRT, HRL, VRL)  
 T拉手

最常見的機器(MRT, HRL, VRL)  
 \*BODY 機身  
 [149.86]  
 Ø5.9



"Pneumatic"

Most common machines:  
 (MRT, HRL, VRL, ERT)

Continuous air supply present (50 psi min.)  
 Pneumatic Retract Kit Sold Separately  
 氣動

最常見的機器(MRT, HRL, VRL, ERT)  
 連續供氣存在(50磅分鐘)氣動收回套件單獨出售



"Remote" 遠程

Most common machines:  
 (ERH, ERT)

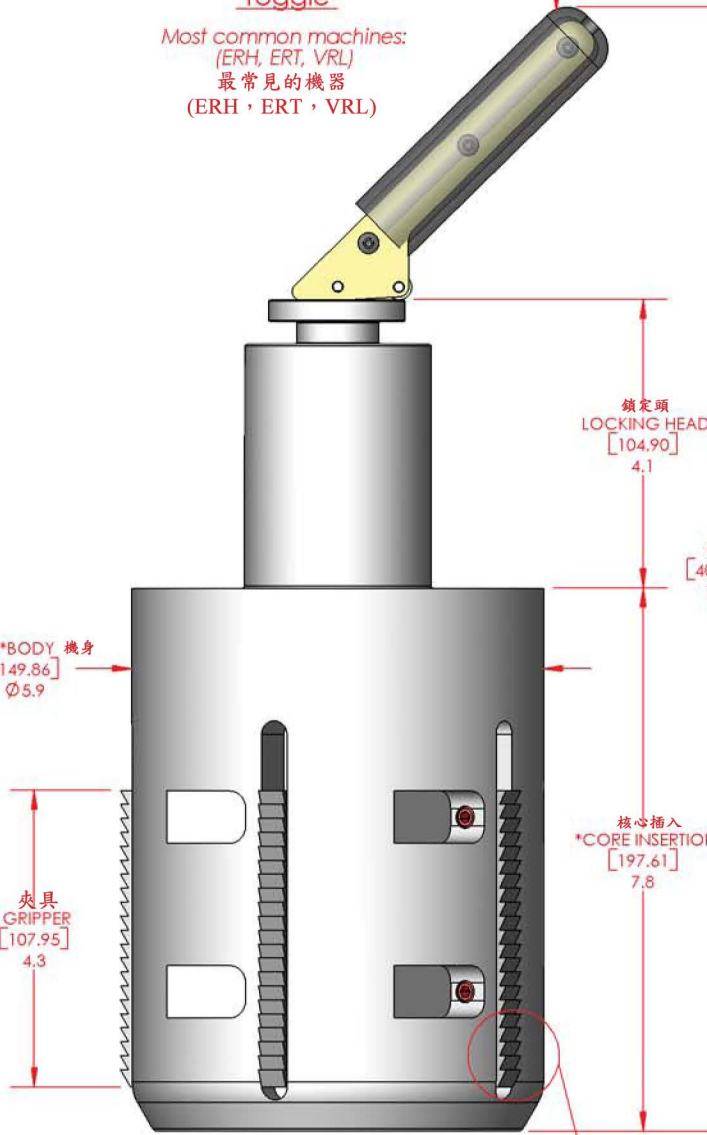
Electric Remote Retract (24VDC, 110VAC)  
 or  
 Manual Remote Retract (Cable & Hand Lever)  
 Remote Retract Kits Sold Separately

最常見的機器(ERH, ERT)電動遙控收回(24VDC, 110VAC)或  
 手動遙控收回(電纜&手柄)遠程收回套件單獨出售

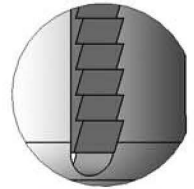
### 切换 "Toggle"

Most common machines:  
 (ERH, ERT, VRL)  
 最常見的機器  
 (ERH, ERT, VRL)

PUSH 推

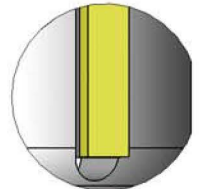


### 夾持器型材 GRIPPER PROFILES



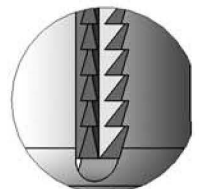
"Standard"

Cardboard cores  
 Most common applications  
 標準  
 紙板芯最常見的應用



"Urethane"

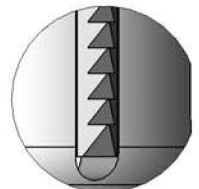
Steel, Aluminum Cores  
 Non-marking 60-70 shore A  
 氨基甲酸乙酯  
 鋼, 鋁芯無傷痕60-70A級



"Shark Tooth"

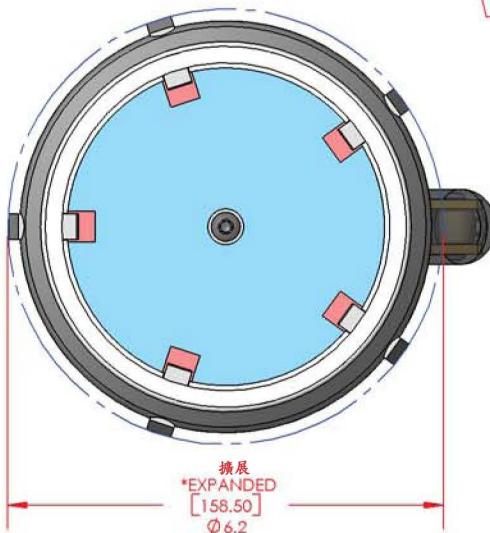
PVC, Hard Cardboard Cores  
 Double Edge Contact  
 鯊魚牙

GRIPPER PROFILE 夾具外形  
 聚氣乙烯, 硬紙板芯  
 雙重邊緣接觸



"Piranha Tooth"

PVC, Hard Cardboard Cores  
 Single Edge Contact -High Wear  
 食人魚牙  
 聚氣乙烯, 硬紙板芯單邊緣接觸-高耐磨



擴展  
 \*EXPANDED  
 [158.50]  
 Ø6.2