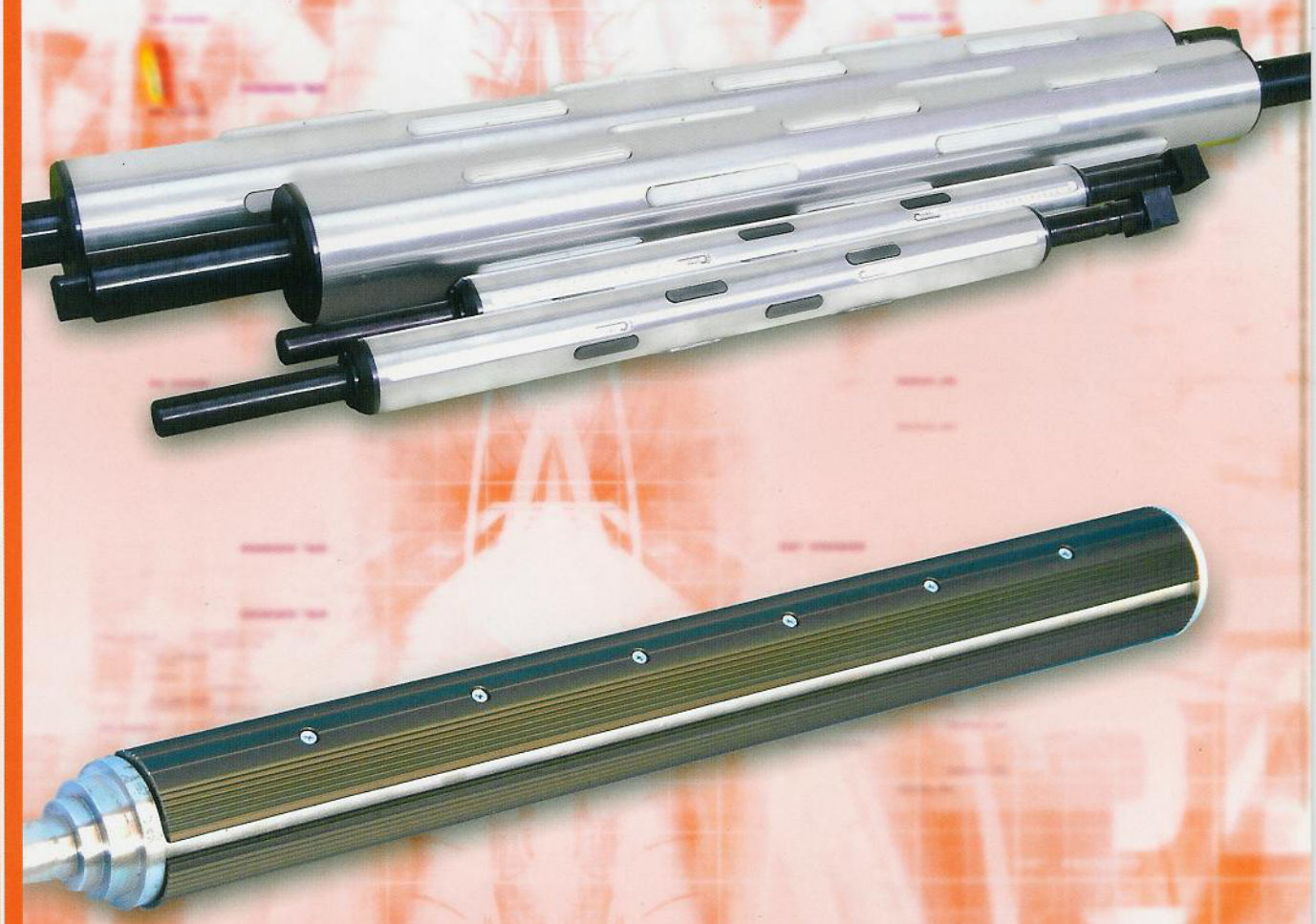
Air Shaft

Air Shaft
氣壓式軸心專業製造

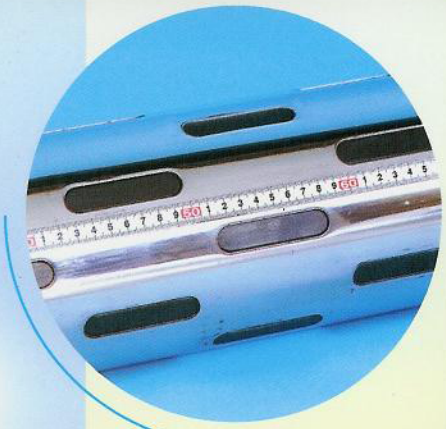


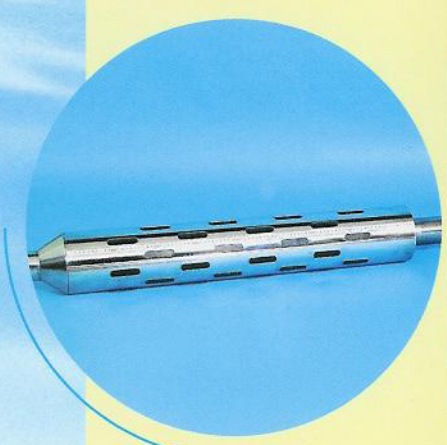
成隆機械有限公司

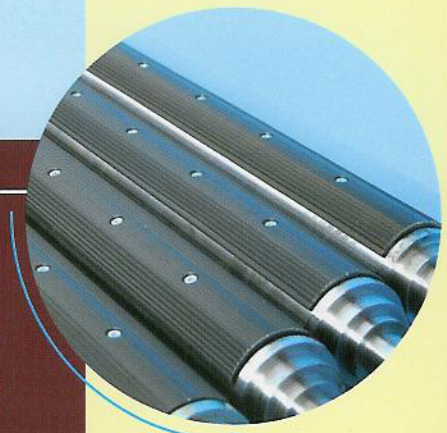
Chen Long Machinery Co., Ltd.

Production: Variety Air Shaft. Roller and Related Parts

板條式氣壓軸
LEAF TYPE AIR SHAFT







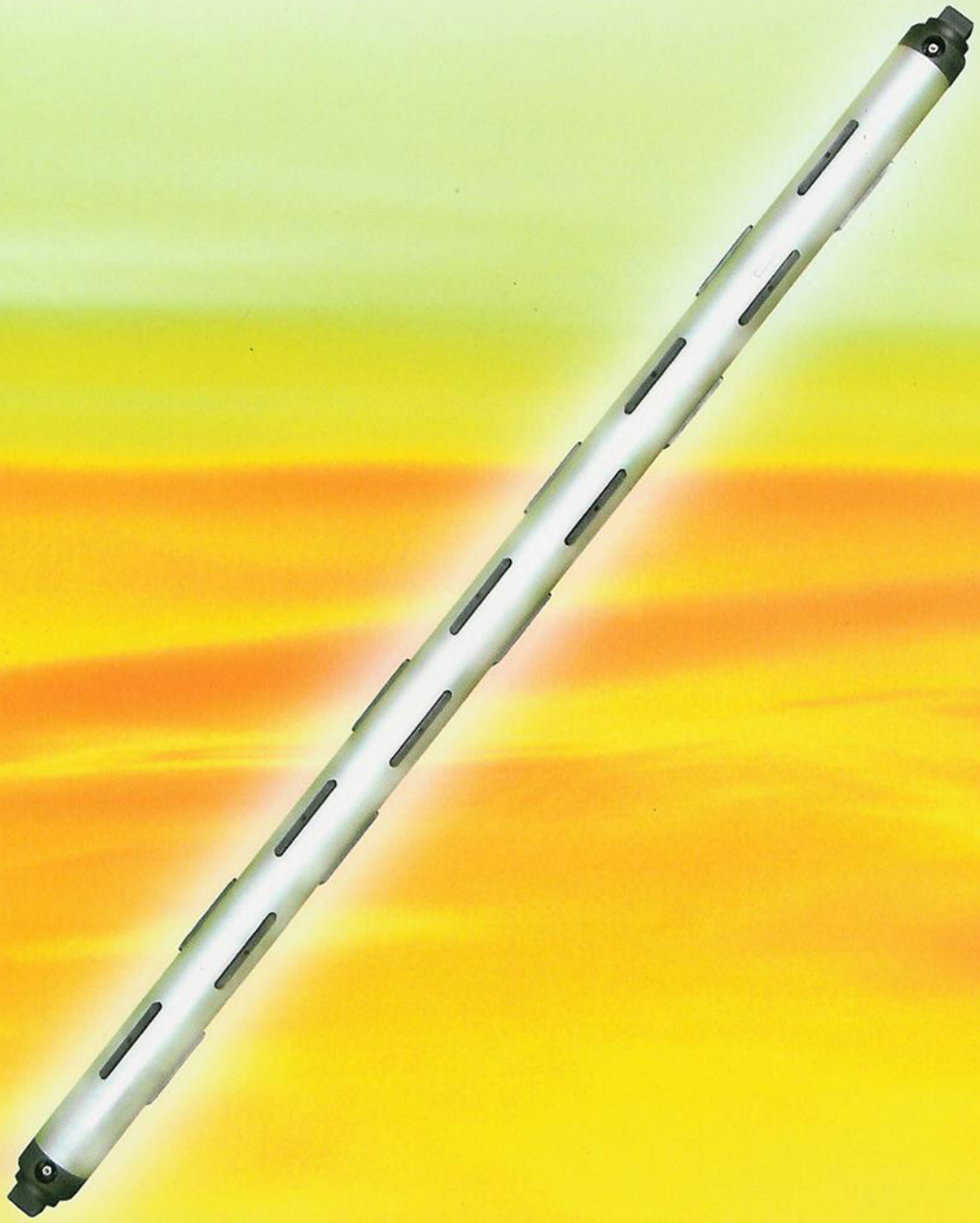
▌用途：

本品相關於分條、印刷、複卷、塗佈、貼合及其他需要較高真圓或表面卷取及發送料之結構配合使用。

▌PURPOSES:

These products are used in slitter, printing, rereeling, spreading or coating, laminating machineries and other equipments wich need high roundness, or other surface reeling and unreeling structure.

鍵條式氣壓軸
KEY TYPE AIR SHAFT



▮用途：

本品相關於扭力及承載重量較高之分條，印刷、複卷、塗佈、貼合、製袋、造紙關係機械或其他相關中心傳動卷取及發送料之機械配合使用。

▮PURPOSES:

This shaft suitable for using in high torque loading or coating slitter, printing, rereeling, spreading, laminating, bag making, paper making machineries, and other central driving, reeling unreeling equipments.

AIR SHAFT

構造及動作原理：

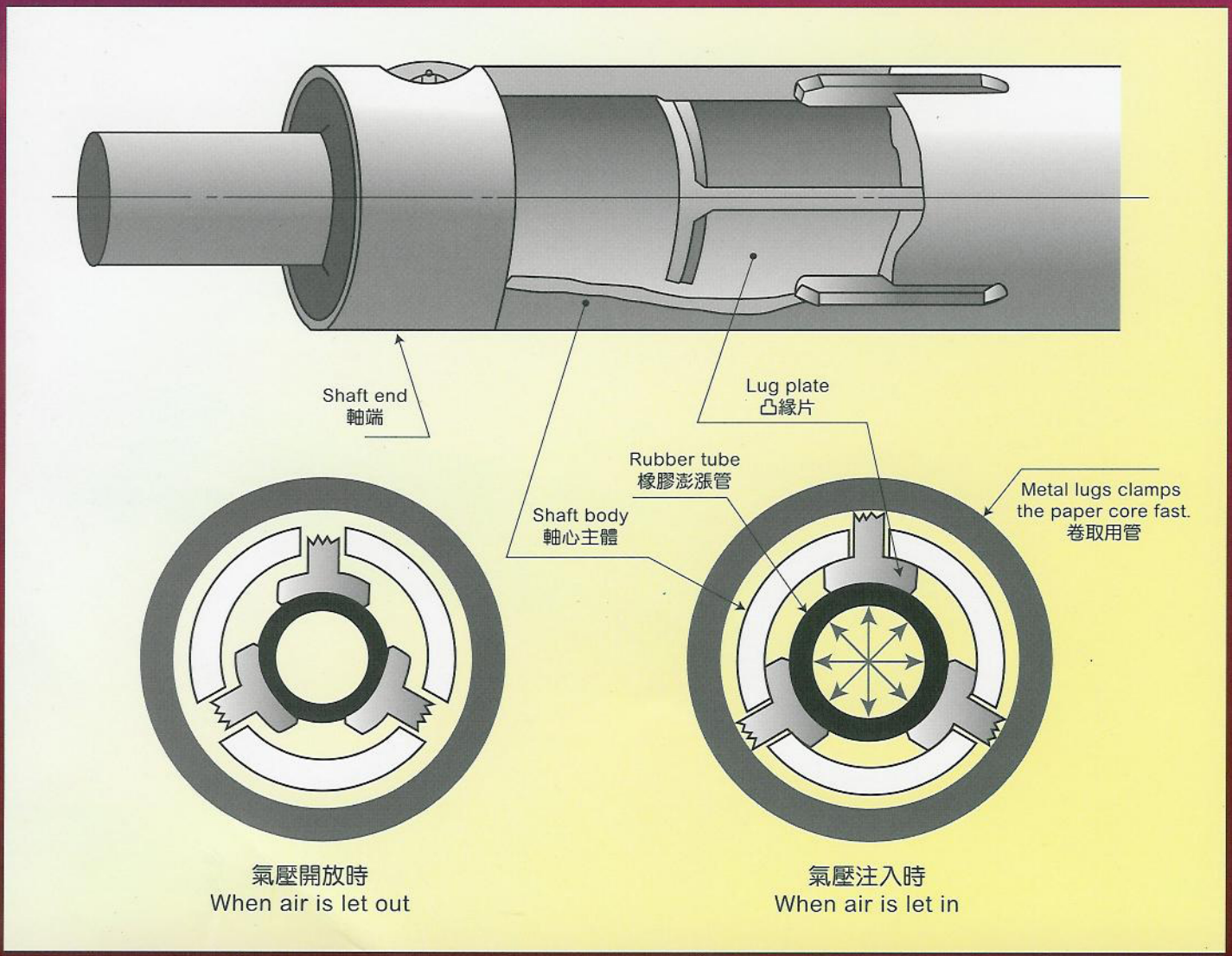
顧名思義 AIR SHAFT是以空氣壓縮原理，進而使軸與卷心管之間之緊密配合，便利於生產線之發送與卷取，促進生產線上操作之合理化，簡便化與精準化其主要構造如下圖，本體為鋼材或合金材，膨脹體為特殊之橡膠構成。

空氣注入內部膨脹體時，本體零件會擴張押出，使操作物(紙管、鋼管、塑膠管)全面寬精確的固定於卷心軸上(或發送軸)。當空氣放出時，可很方便的將卷心軸(或發送軸)取出。

Structure and Operating Principle:

As shown in the figure, AIR SHAFT consists of the metal part (body and lugs) and the expansion part (special rubber tube). When air is let in, the inside expansion part inflates and pushes the metal lugs out, thus in a few seconds the core (paper, steel, etc.) can surely be clamped at the center with a high preciseness.

When air is let out, the expansion part contracts and pulls the metal lugs in, thus the core is freed form the clamped state, enabling easy replacing, etc.



Comparision of AIR SHAFT with Mechanical Solid Shaft

Air Shaft:

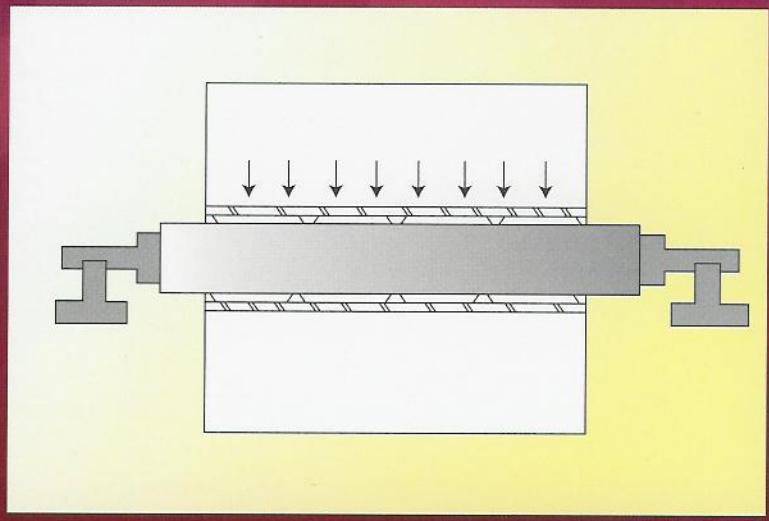
Core is surely clamped with shaft's lugs or leaves. Strong clamp permits of no slipping upon sudden stop. Thus, high-speed rotation can be made smoothly, leading to higher quality of sheet. As shown below, the load of sheet is equally distributed on the shaft, Whose deflection can thus be reduced to the minimum. Transmission torque is very high, enabling easy reeling of narrow sheet after slitting.

Mechanical Solid Shaft:

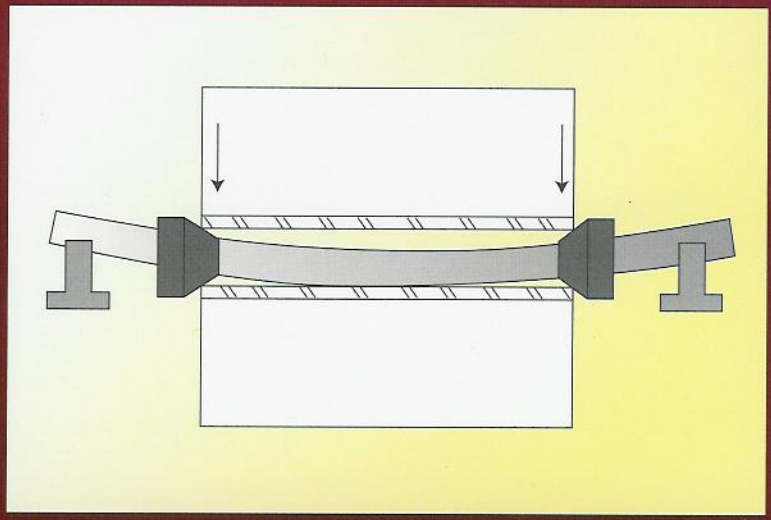
In case of mechanical solid shaft using taper cone, load is concentrated on both ends of the core, leading to deflection as shown below. This deflection can cause shaft's eccentric load and unbalanced tension. The extent of deflection increases in proportion to the sheet weight and rotation speed, resulting in wrinkles (lengthwise and breadthwise) of film. Further, as both ends of core are gripped by almost line pressure, the paper core can be heavily damaged, and slipping is caused according to increase in diameter of roll, width of roll, reeling speed or tension.

使用AIR SHAFT 與傳統式軸心固定法之比較：

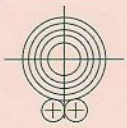
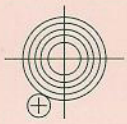
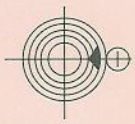
氣壓軸心承載量大
支點平均，取扱設定尺寸點容易。



傳統式軸心容易產生彎曲，
且取扱設定尺寸點不易，管端容易造成損壞。



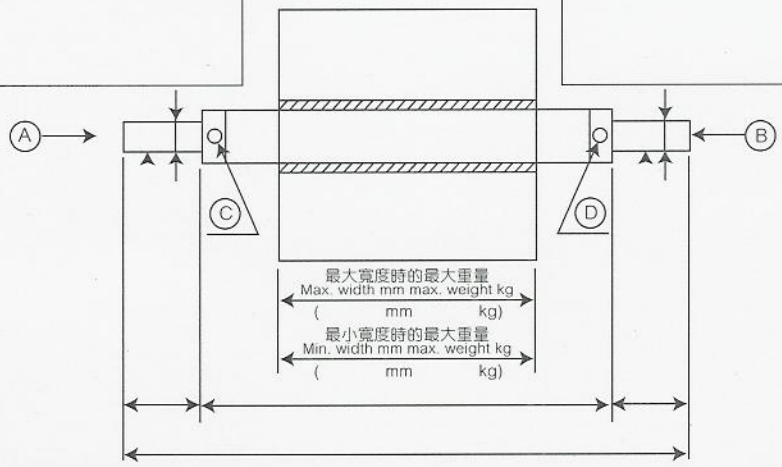
氣壓軸規格說明圖

卷管內徑 Internal dia. of core	φ_____±	使用用途 Purpose of use	
卷管外徑 External dia. of core	φ_____(厚度)	使用方法 Method of use	
卷管材質 core material	紙管 paper · 鋼管 steel · PVC管 PVC · ( )	a)軸卷取 (輸出) Axial reeling-in (center roll)	
材料重量 Raw material weight	kg		
材料寬度 Raw material width	min max	b)軸卷取 (上壓方式) Axial reeling-in (touch roll)	
卷取材質 Kind of rewind material			
最大卷徑 Max. web dia.(mm)	φ	c)表面卷取 (雙滾輪) Surface reeling-in (double roll)	
材料張力 Tension of rewind material	kg		
機台速度 Machine speed		d)表面卷取 (單滾輪) Surface reeling-in (single roll)	
Shaft本體材質 Shaft body material	鋼製 steel · 強化鋁合金製 alloy-aluminum		
Shaft本體種類 Kind of shaft		e)表面卷取 (測壓方式) Surface reeling-in (side press roll)	
空氣注入口 Air entrance	(A · B · C · D)		
軸承載距離 Lenght of shaft bearing point	mm	訂貨數量 Quantity	
使用空氣壓 Use of air pressure	kg/cm²	希望交貨期 Delivery	

(左軸端擴大圖 end of left side)

SHAFT 概略圖
SHAFT summary drawing

(右軸端擴大圖 end of right side)



成隆機械有限公司 Chen Long Machinery Co., Ltd.

公司：台北縣板橋市干城路145號
電話：02-2961-6629 · 2962-1889
傳真：02-2961-5318
統編：33096245

No.145, Kancheng Rd., Panchiao,
Taipei, Taiwan.
Tel:886-2-2961-6629 · 2962-1889
Fax:886-2-2961-5318
E-mail:clong861@ms68.hinet.net