



ISO 9001 2000國際品質認證

# 高品質 低噪音

# 直立式魯氏鼓風機

Minimal Vibration and Low Noise  
Vertical Roots Blower



專業製造魯氏鼓風機

Specializing in the manufacturing of Roots blowers

## 春鼎直立式鼓風機特點：

❖ 本公司葉輪採用最先進之四軸加工一次加工法，以減少人為誤差，提昇葉輪之精密度，並提高鼓風機之效率。

### ❖ 葉輪免潤滑油，故障率低

在轉子與轉子間，及轉子與殼體間，設有適當間隙，在運轉中互不接觸，內部不需潤滑處理、機械部份之接觸，採正時齒輪啮合模式，且殼體（轉子動作室）以割蓋氣油分離，不致有潤滑油混入之虞，故吐出之氣體為不含油成份之清淨空氣，即使在長期運轉情況下，亦可安心使用。

高度標準化之組件、品質保證，所有零件均經CNC自動工作母機加工，規格均一致化，即使因不當使用所導致之損害，亦能輕而易舉的更換新舊零件，節省維修時間與工時費用，零件特價供應不虞無維修之困擾，訓練有素之外勤服務人員，讓客戶得到最佳之售後服務。

### ❖ 低噪音、低震動

在噪音及振動之改善方面，本公司經多年加以研究，此一系列新機種乃採高精密度轉子結構，以遂行理想之逆流壓縮功能，鼓風機吐出空氣之脈動可更平滑的進行，噪音及振動均可大幅度減低，因此就小型鼓風機而言，可免加裝出口消音器。

### The Characteristic of the TRUN-DEAN Blower:

❖ To reduce man-made errors, enhance the precision of the leave-wheel, and to promote the blower efficiently, our rotor has uses the most advanced--one time work process Four- Shaft method.

### ❖ Unique Design with Quality Components

Appropriate clearance between the rotors and the rotors with the casing ensure no direct operational contact, hence no lubrication is necessary. The synchronous gear drive system and the shaft bearings are the only parts which require lubrication. Separate lateral chambers are designed to house these moving parts with proper seals to prevent oil leakage to the main chamber. Computerized CNC machines are used to produce components and parts of high quality and precision, also saves the user both time and labor during maintenance and replacement.

### ❖ Low Noise & Minimal Vibration

Noise and vibration reduction are the main emphasis in developing the new series of roots blower. The TRUNDEAN Blower rotor concept was adopted based on its flow characteristics which is very stable and even compared to the 2 lobes type, also coupled with the fact that it shows a considerable reduction of both noise and vibration. The extent of reduction can even allow the smaller unit to operate without the need of a silencer.

### 鼓風機動作原理：



魯氏鼓風機之動作原理為機體氣室內裝置兩組葉輪，以相反方向迴轉時，吸入側因容積V1變化而產生低壓，為平衡壓力而吸入空氣，而形成容積V2之空氣，再由吐出側送出空氣，由吐出口之阻力而產生高壓。

由於兩葉輪間保有一定之間隙，因此兩葉輪並無相互摩擦，所以不必在葉輪間添加任何潤滑劑，即可高速運轉排送潔淨空氣，亦可用於真空用途。

### Principle of the Blower Operation:

There are two sets of rotors in the air compartment of the blower body, when the rotors operate in opposite directions they suck in air to balance the pressure created due to the volume V1 change on the inlet side. And the air of the volume V2 will be sent out thru the outlet side and the high pressure will be created thru the outlet mouth.

Also, there is no need to apply any lubrication between the two rotors because of the existing gap between them which gives no worry about the possibility of friction. It runs well at high speed and produces clean air. It also can be used in vacuum circumstances.

# 為何選擇春鼎直立式魯氏鼓風機?

Why Should You Select the Trundean Vertical Roots Blower?

傳統皮帶式鼓風機壓力振幅大，造成振動及噪音，縮短軸承、齒輪及其他傳動元件的壽命。  
Traditional blowers result in pressure pluses and vibrations that rob power and shorten the life of every bearing, gear and other transmission component.

## 較低的能源損耗

春鼎直立式魯氏鼓風機的設計能減少逆流對轉子的壓力，相對的也減少能源的損耗。

### Lower Energy Consumption

TRUNDEAN Vertical Roots Blower are designed to control backflow pressure to the rotor in order to reduce energy consumption.

## 減免經常性之保養困擾

春鼎直立式魯氏鼓風機採用直結式傳動，可減免皮帶之經常性損耗保養及機器漏油之困擾。

### Reduces the amount of regular maintenance that needs to be performed.

The TRUNDEAN Vertical Roots Blower uses direct-drive, reducing wear and tear on the belt, reducing the amount of maintenance needed, and reducing the risk of oil leaks.

## 裝置簡單

裝置簡單、省工時、不佔空間、不需防音設備……即達成低噪音之生活空間。

### Easy Installation

The Blower is simple to install, does not require much time to maintain, does not occupy much space, and provides a noise-free living environment without the need for additional noise prevention equipment.

## 較低的噪音

壓力脈衝是主要的噪音源，春鼎直立式魯氏鼓風機相較於皮帶式鼓風機能有效降低噪音達 5dB。

### Lower Noise

Pressure pluses are the major noise source in blowers. The TRUNDEAN Vertical Roots Blower design can efficiently reduce noise by approximately 5 dB.

## 機器體積小，不佔空間

春鼎直立式魯氏鼓風機體積小，不佔空間，而出氣口可依現場環境調整方向，安裝容易。

### The blower is compact, occupying only a small amount of space.

Not only is the TRUNDEAN Vertical Roots Blower very compact, the direction of the air vent can be adjusted according to actual needs, and the unit is easy to install.

## 軸承壽命延長

由於葉輪傳遞的振動減少，得以延長軸承壽命達 20%。

### Longer Bearing Life

Less vibration transmitted through the lobe results in approximately 20% longer bearing life.

直立式魯氏鼓風機外觀圖 The Surface of Vertical Roots Blower



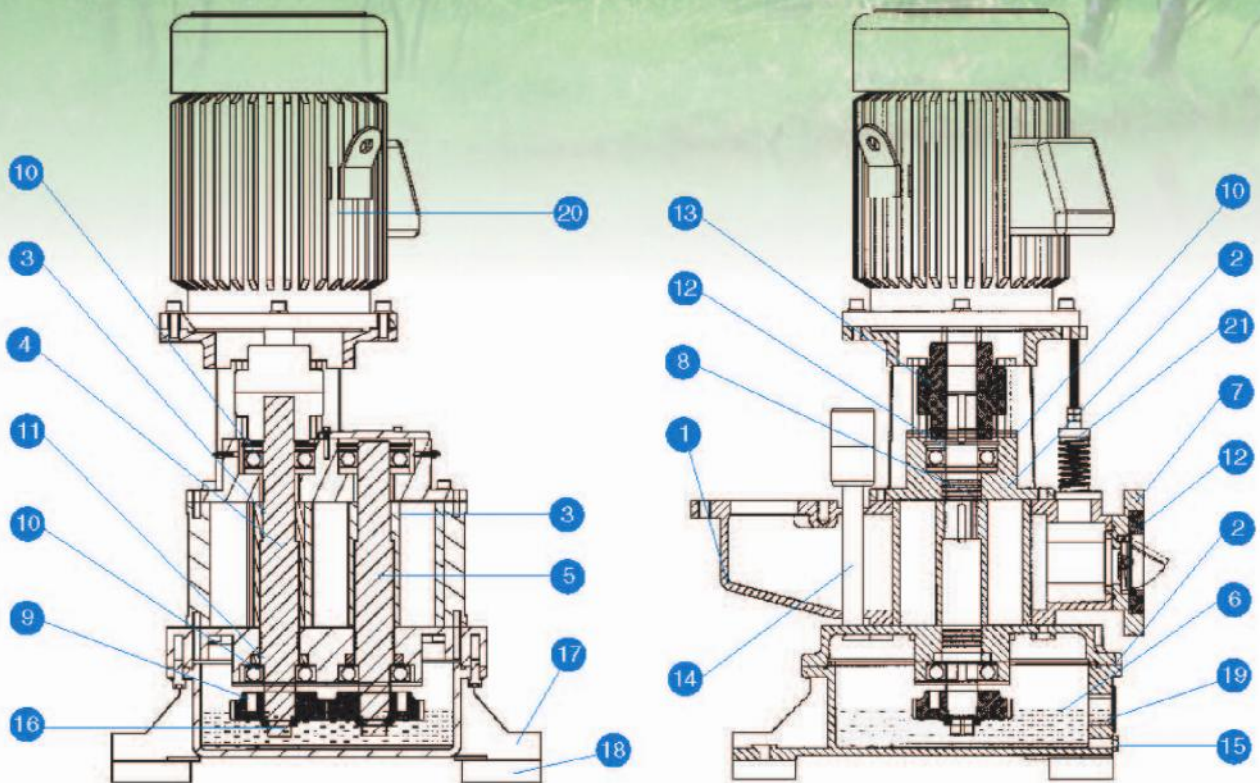
U 型配置



L 型配置

公司的经营理念 研究创新、技术超群、产品精良、服务诚恳。

春鼎直立式魯氏鼓風機掌握核心技术，絕對是您最佳的選擇

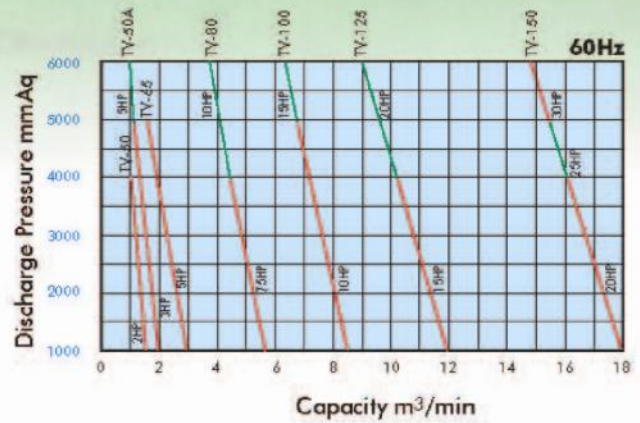
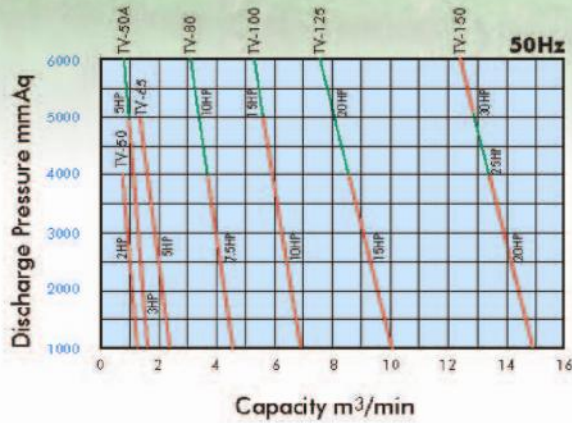


直立式魯氏鼓風材質表 **Material**

NO.	名稱	Name	數量Qty	材質 Material	NO.	名稱	Name	數量Qty	材質 Material
1	本體	Main Body	1	FC 250	12	碟型彈簧片	Dish Springs	2	N 63 CA
2	軸承座	Bearing Base	1	FC 250	13	聯結器	Coupling	1	FCD 500
3	葉輪	Rotor	2	FC 250	14	入油柱塞	Lubrication Plug	1	FCMB 28
4	主動軸	Drive Shaft	1	SCM 440	15	洩油柱塞	Oil Drain Plug	1	FCMB 28
5	被動軸	Driven Shaft	1	SCM 440	16	固定螺絲帽	Nut	2	S 45 C
6	油箱	Oil Box	1	FC 250	17	支撐腳座	Base	1	FC 250
7	逆止閥	Cheek Valve	1	FC 250	18	防震墊片	Vibration Isolator	1	SBR
8	軸心襯套	Shaft Link	2	S 45 C	19	油鏡	Oil Gauge	1	BRASS
9	齒輪	Gear	2	SNCM 21	20	馬達	Motor	1	FC 200
10	軸承	Bearing	4	SUJ 2	21	安全閥	Safety Valve	1	FC 200
11	油封	Oil Seal	2	NBR					

※可依特殊材質指定設計製作

## 性能曲線圖 Performance Curves

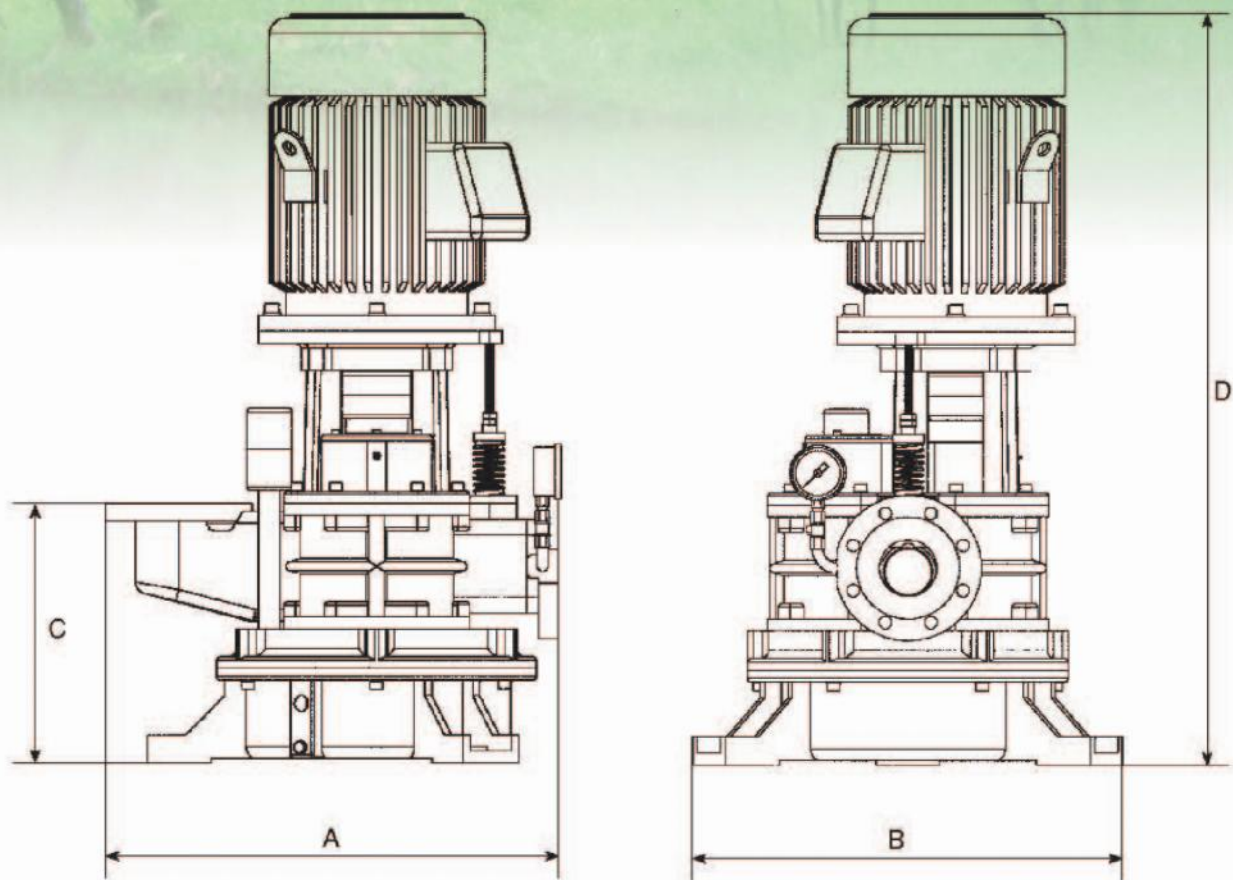


## 直立式魯氏鼓風機性能表 Specifications

機 型  Model	口 徑  Bore	馬 力 Power  HP	壓力 kgf/cm <sup>2</sup> 風量 m <sup>3</sup> /min Pressure kgf/cm <sup>2</sup> Capacity m <sup>3</sup> /min													
			50 Hz				噪音值 Noise	60 Hz				噪音值 Noise				
			0.1	0.2	0.3	0.4		0.5	0.6	0.1	0.2		0.3	0.4	0.5	0.6
TV-50	2"	2	1.26	1.10	0.93	0.76			54	1.58	1.37	1.16	0.95			56
TV-50A	2"	3	1.60	1.44	1.28	1.12	0.96		56	1.99	1.79	1.59	1.39	1.19		58
TV-50A	2"	5	1.60	1.44	1.28	1.12	0.96	0.80	58	1.99	1.79	1.59	1.39	1.19	0.99	60
TV-65	2.5"	5	2.46	2.18	1.90	1.63	1.35		60	3.02	2.68	2.34	2.00	1.66		62
TV-80	3"	7.5	4.59	4.30	4.00	3.70			65	5.60	5.24	4.88	4.52			67
TV-80	3"	10	4.59	4.30	4.00	3.70	3.41	3.11	68	5.60	5.24	4.88	4.52	4.16	3.80	70
TV-100	4"	10	6.98	6.64	6.31	5.97	5.63		71	8.45	8.04	7.63	7.22	6.81		73
TV-100	4"	15	6.98	6.64	6.31	5.97	5.63	5.29	73	8.45	8.04	7.63	7.22	6.81	6.40	75
TV-125	5"	15	10.0	9.52	9.02	8.52			75	12.0	11.4	10.8	10.2			77
TV-125	5"	20	10.0	9.52	9.02	8.52	8.02	7.52	76	12.0	11.4	10.8	10.2	9.6	9.0	78
TV-150	6"	20	14.9	14.4	13.9	13.4			79	17.9	17.3	16.7	16.1			81
TV-150	6"	25	14.9	14.4	13.9	13.4	12.9		81	17.9	17.3	16.7	16.1	15.5		83
TV-150	6"	30	14.9	14.4	13.9	13.4	12.9	12.4	83	17.9	17.3	16.7	16.1	15.5	14.9	85

※噪音值係壓力0.3kgf/cm<sup>2</sup>，在標準配管狀態下，離鼓風機1m處所量測之值。

外型尺寸圖 *Dimensions*



外型尺寸圖 *Outside Dimensions* (Unit: mm)

型號 Model	HP	A	B	C	D	重量 Weight (kg)
TV-5015	2	430	425	288	820	125
TV-50A22	3	430	425	308	834	145
TV-50A37	5	430	425	308	834	150
TV-6537	5	430	425	363	952	160
TV-8055	7.5	572	542	330	972	290
TV-8075	10	572	542	330	1018	300
TV-10075	10	605	542	400	1080	315
TV-10011	15	605	542	400	1118	370
TV-12511	15	768	681	385	1148	570
TV-12515	20	768	681	385	1192	595
TV-15015	20	784	681	450	1272	625
TV-15018	25	784	681	450	1409	690
TV-15022	30	784	681	450	1409	695

※重量為L型配置含附件及馬達之重量。

# 科技研發 與時俱進 開創新局



專利—是肯定我們研發的成果及領先業界的榮耀  
Patent is to Approve our result and lead the glory



迎賓大廳



嚴謹的測試品質，提供最佳品質



完善的組立生產線



完整的測試品質，提供產品最佳保護



主機庫存區



貨櫃碼頭



CNC電腦加工區



成品出貨區



專業製造生產鼓風機·產品齊全·並有特殊用途之規格材質  
Specializing in the manufacturing of blowers; wide varieties of  
products; and special order with specific designs.

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經銷商