



ISO 9001 2000國際品質認證

## Minimal Vibration and Low Noise Vertical Roots Blower

ISO 9001



Specializing in the manufacturing of Roots blowers

### 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.

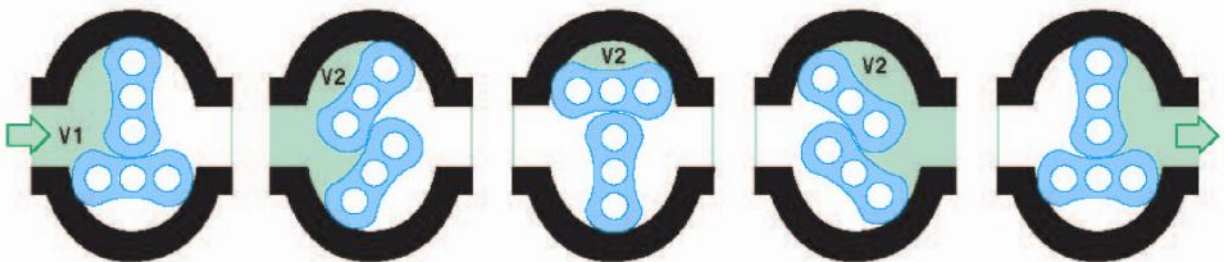
#### ❖ Unique Design with Quality Components

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.

### 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  $V_1$  change on the inlet side. And the air of the volume  $V_2$  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.

## *Why Should You Select the Trundean Vertical Roots Blower?*

Traditional blowers result in pressure pluses and vibrations that rob power and shorten the life of every bearing, gear and other transmission component.

### **Lower Energy Consumption**

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

### **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.

### **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.

### **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.

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

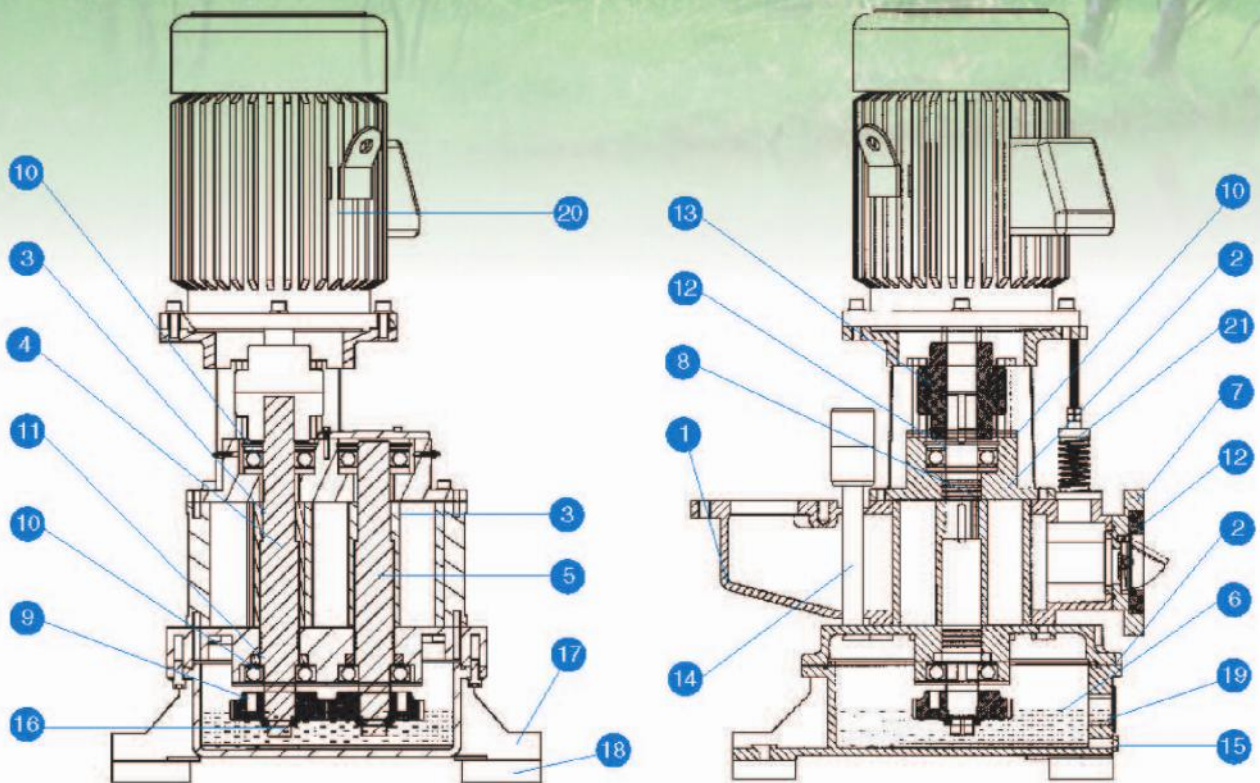
Not only is the TRUNDEAN Vertical Roots Blower very compact, the direction of the air vent can be adjusted according to actual needs, and the unit is easy to install.

### **Longer Bearing Life**

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

## **The Surface of Vertical Roots Blower**

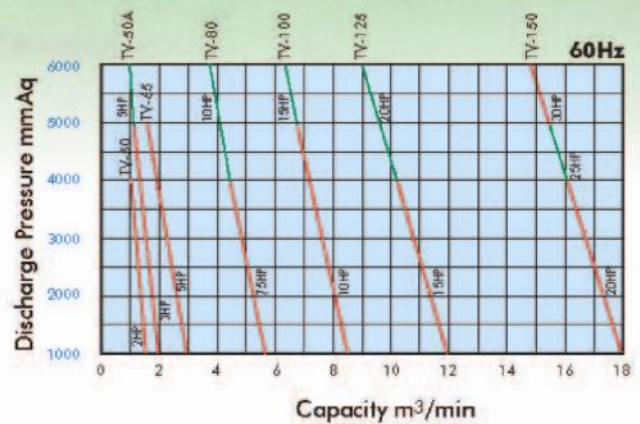
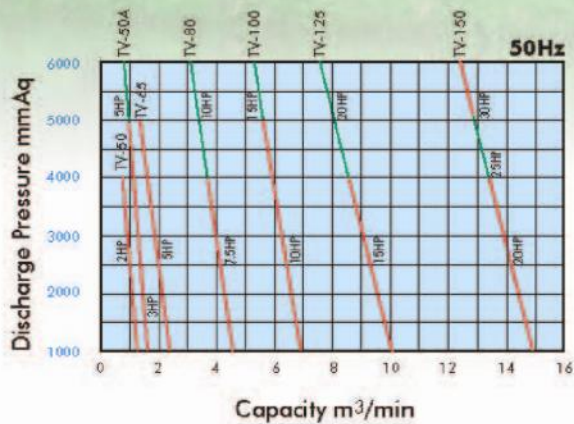




### Material

NO.	Name	Q'ty	Material	NO.	Name	Q'ty	Material
1	Main Body	1	FC 250	12	Dish Springs	2	N 63 CA
2	Bearing Base	1	FC 250	13	Coupling	1	FCD 500
3	Rotor	2	FC 250	14	Lubrication Plug	1	FCMB 28
4	Drive Shaft	1	SCM 440	15	Oil Drain Plug	1	FCMB 28
5	Driven Shaft	1	SCM 440	16	Nut	2	S 45 C
6	Oil Box	1	FC 250	17	Base	1	FC 250
7	Cheek Valve	1	FC 250	18	Vibration Isolator	1	SBR
8	Shaft Link	2	S 45 C	19	Oil Gauge	1	BRASS
9	Gear	2	SNCM 21	20	Motor	1	FC 200
10	Bearing	4	SUJ 2	21	Safety Valve	1	FC 200
11	Oil Seal	2	NBR				

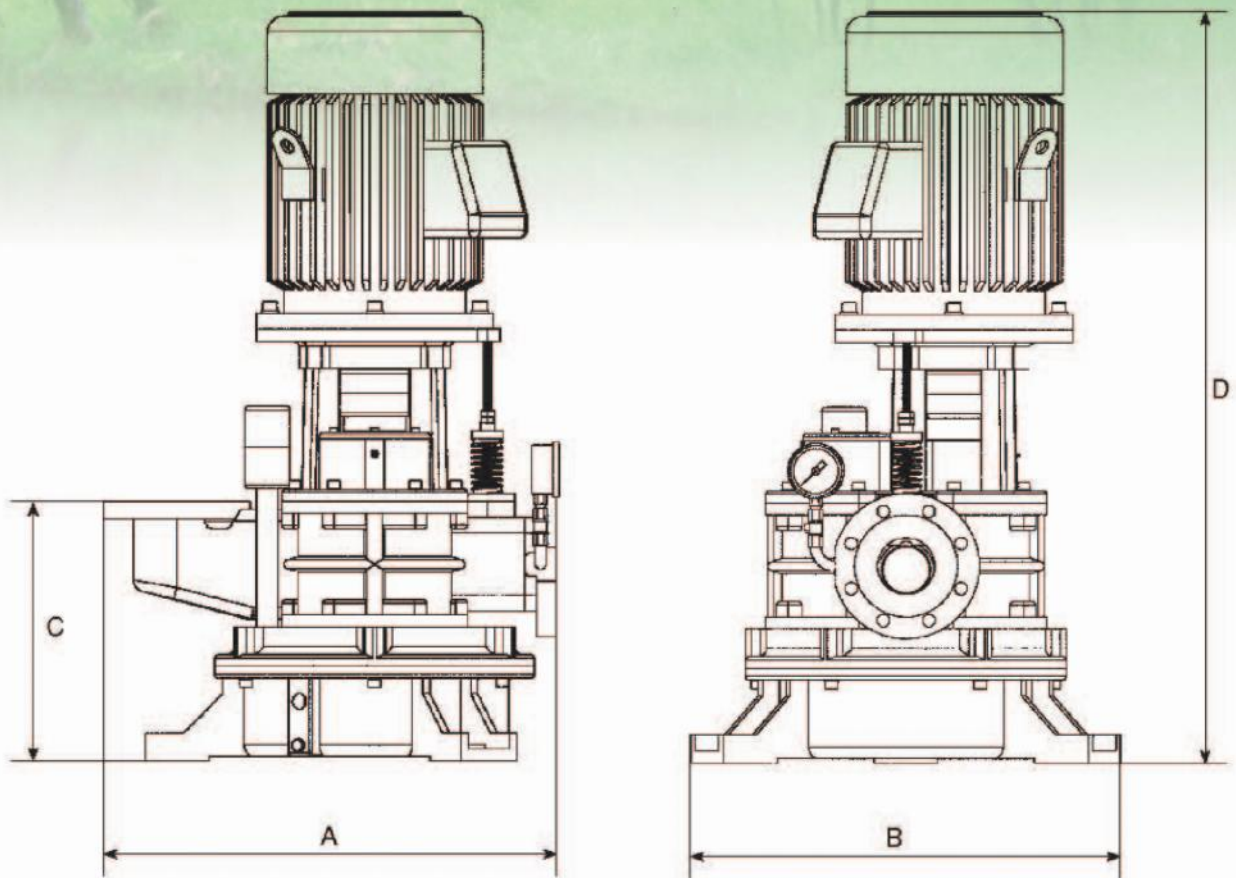
## Performance Curves



## Specifications

Model	Bore	Power HP	Pressure kgf/cm <sup>2</sup> Capacity m <sup>3</sup> /min							Noise	Pressure kgf/cm <sup>2</sup> Capacity m <sup>3</sup> /min						Noise
			50 Hz								60 Hz						
			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	

## Dimensions



## Outside Dimensions (Unit: mm)

Model	HP	A	B	C	D	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

# 科技研發 與時俱進 開創新局



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



完善的測試品質·提供產品最佳保證



主機庫存區



貨櫃碼頭



CNC電腦加工區



成品出貨區



Specializing in the manufacturing of blowers; wide varieties of products; and special order with specific designs.

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