

DSR系列罗茨鼓风机 ROOTS TYPE ROTARY BLOWERS



Company Profile

Shandong Dacheng Machinery Technology Co., Ltd. is a professional large-scale manufacturer of all types of blowers, integrating development and production together. Our main products include roots blower, roots vacuum pump and multistage centrifugal blower. Our company was established in 2004, and we have many years of history in the blower industry. Located near Jinan, we enjoy convenient water, land and air transportation.

Our company employs more than 300 workers; through the efforts of our entire staff, we have become the leading manufacturer of blowers in China. DACHENG people have continuously tried to improve product quality, purchase large-scale precision production and testing equipment more than 20 sets, introducing CNC machining center, Large CNC milling machine, Dynamic balance detector and etc. Moreover, we have a CAD Design Center, giving our company good technical capabilities. Our annual production capability is 10 thousand sets of blower.

Currently, DACHENG blower is already exported to America, Australia, Korea and 20 other countries and regions. Our company has always focused on research, development and innovation, and has recently developed new multistage centrifugal blower and now is developing air suspension turbo blower. Till now, we attained ISO9001 quality management certification and CE safety certification.

Dacheng Machinery will initiate the second phase of our development strategy. Our company regards "reasonable prices, efficient production time and good after-sales service" as our tenet. We hope to cooperate with more customers for mutual development and benefits. We welcome potential buyers to contact us.





Product Introduce

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DICHENG DSR Series Roots Blowers adopts the advanced technology of Japan, its air capacity is 0.225m3/min - 434m3/min, the pressure is from 9.8Kpa to 98Kpa. The main characteristic of our air blower is small volume, light weight, flow strong, noise small, steadily reliable operation. This air blower is mainly applied to such trades as water treatment, air transport, mine, vacuum packaging, aquaculture and etc. Our products export to Southeast Asia, Europe, North and South America and etc.

Product Feature



- 1. Air flow and pressure can be customized
- 2. Stable air flow and less pressure variation
- 3. Clean air not with oil moist
- 4. Construction simple and easy maintenance
- 5. Bearing are all lubricated by oil moist
- 6. Long service life

Blower Selection

DSR Low Pressure Tri-lobe Roots Blower

DSR50	0.78-2.48 m3/min	9.8-58.8 Kpa
DSR65	1.07-3.64 m3/min	9.8-58.8 Kpa
		-
DSR80	2.36-5.43 m3/min	9.8-58.8 Kpa
DSR100	3.28-9.07 m3/min	9.8-58.8 Kpa
DSR125	5.37-12.48 m3/min	9.8-58.8 Kpa
DSR125A	8.05-20.11 m3/min	9.8-58.8 Kpa
DSR150	10.39-27.05 m3/min	9.8-58.8 Kpa
DSR175	19.65-40.57 m3/min	9.8-58.8 Kpa
DSR200D	21.50-45.70 m3/min	9.8-58.8 Kpa
DSR200	27.63-59.20 m3/min	9.8-58.8 Kpa
DSR225	33.19-71.08 m3/min	9.8-58.8 Kpa
DSR250B	54.77-77.55 m3/min	9.8-58.8 Kpa
DSR250	60.7-94.3 m3/min	9.8-58.8 Kpa
DSR300	85.9-134.7 m3/min	9.8-58.8 Kpa
DSR300A	101.9-157.4 m3/min	9.8-58.8 Kpa
DSR350	105.5-188.7 m3/min	9.8-58.8 Kpa
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DSR-G High Pressure Tri-lobe Roots Blower

0		
DSR50G	0.45-2.31m3/min	63.7 - 98Kpa
DSR65G	0.78-3.09m3/min	63.7-98Kpa
DSR80G	1.82-5.26m3/min	63.7-98Kpa
DSR100G	2.65-8.65m3/min	63.7 - 98Kpa
DSR125G	4.64-12.23m3/min	63.7 - 98Kpa
DSR150G	9.53-28.35m3/min	63.7-98Kpa
DSR200DG	19.60-44.49m3/min	63.7-98Kpa
DSR200G	25.34-56.92m3/min	63.7-98Kpa
DSR250G	58.0-93.7m3/min	63.7 - 98Kpa
DSR300G	83.8-134.1m3/min	63.7 - 98Kpa
DSR300AG	66.18-144.1m3/min	63.7-98Kpa
DSR350G	97.9-172.4m3/min	63.7 - 98Kpa

DSR-V Roots Vacuum Pump

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DSR50V	0.86-2.46m3/min	9.8-40Kpa
DSR65V	1.45-3.57m3/min	9.8-40Kpa
DSR80V	2.5-5.53m3/min	9.8-40Kpa
DSR100V	3.57-9.08m3/min	9.8-40Kpa
DSR125V	5.14-12.50m3/min	9.8-40Kpa
DSR150V	11.60-27.80m3/min	9.8-40Kpa
DSR200V	27.08-58.65m3/min	9.8-40Kpa





Blower Selection

DS-L Low Pressure Twin-lobe Roots Blower

L52LD	18.3-35.2m3/min	9.8-49Kpa
L53LD	23.5-44.3m3/min	9.8-49Kpa
L62LD	25.8-67.4m3/min	9.8-49Kpa
L63LD	31.7-84.6m3/min	9.8-49Kpa
L72WD	53.4-89.2m3/min	9.8-49Kpa
L73WD	65.8-99.9m3/min	9.8-49Kpa
L74WD	79.8-124m3/min	9.8-49Kpa
L81WD	60.1-129m3/min	9.8-49Kpa
L82WD	78.4-168m3/min	9.8-49Kpa
L83WD	104-216m3/min	9.8-49Kpa
L84WD	132-270m3/min	9.8-49Kpa
L93WD	233-332m3/min	9.8-49Kpa
L94WD	266-376m3/min	9.8-49Kpa
L95WD	308-434m3/min	9.8-49Kpa

DRRF High Pressure Twin-lobe Roots Blower

DRRF240	38.9-78.0m3/min	9.8-98Kpa
DRRF245	47.5-97.4m3/min	9.8-98Kpa
DRRF250	61.6-120.4m3/min	9.8-98Kpa
DRRF290	75.8-144.5m3/min	9.8-98Kpa
DRRF295	81.0-152.5m3/min	9.8-98Kpa
DRRF300	101.5-188.7m3/min	9.8-98Kpa
DRRF350	126.0-224.9m3/min	9.8-98Kpa

DH Rotary Vane Type Blower

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DH-25S	0.225-0.278m3/min	9.8-49Kpa
DH-251S	0.28-0.31m3/min	9.8-49Kpa
DH-30S	0.31-0.35m3/min	9.8-49Kpa
DH-301S	0.38-0.42m3/min	9.8-49Kpa
DH-40S	0.59-0.66m3/min	9.8-49Kpa
DH-401S	0.67-0.80m3/min	9.8-49Kpa
DH-50S	1.02-1.14m3/min	9.8-49Kpa
DH-501S	1.32-1.44m3/min	9.8-49Kpa
DH-60S	1.71-1.90m3/min	9.8-49Kpa
DH-601S	2.18-2.41m3/min	9.8-49Kpa
DH-80S	2.50-2.82m3/min	9.8-49Kpa
DH-801S	3.25-3.53m3/min	9.8-49Kpa
DH-100S	4.11-4.32m3/min	9.8-49Kpa
DH-1001S	5.11-5.41m3/min	9.8-49Kpa
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Description of Performance parameters

The performance parameters table shows the model, outlet diameter, rotate speed, discharge pressure, air capacity and power of motor.

1. The air capacity and pressure in the tables is in standard suction state. The standard suction state

is 20°C temperature, 1.033 kgf/cm2(101.3Kpa) Standard atmospheric pressure and 65% relative humidity.

2. The air capacity and pressure range of some blower models is repeated, to ensure the service life and low noise, should use the larger model.

Unit conversion table

	Pressure								
Unit	N/m² (Pa)	(Pa) kgf/m ² kgf/cm ² ba		$/m^2$ (Pa) kgf/m^2 kgf/cm^2 bar atm mmH_2		mmH ₂ O	mmHg	lb/in² (psi)	
N/m² (Pa)	1	0.101972	10.1972×10 ⁻⁶	1×10 ⁻⁵	0.986923×10 ⁻⁵	0.101972	7.50062×10 ⁻³	145.038×10 ⁻⁶	
kgf/m ²	9.80665	1	1×10-4	9.80665×10 ⁻⁵	9.67841×10 ⁻⁵	1×10 ⁻⁸	0.0735559	0.00142233	
kgf/cm ²	98.0665×10 ³	1×10^{4}	1	0.980665	0.967841	10×10 ³	735.559	14.2233	
bar	1×10 ⁵	10197.2	1.01972	1	0.986923	10.1972×10 ³	750.061	14.5038	
atm	1.01325×10 ⁵	10332.3	1.03323	1.01325	1	10.3323×10 ³	760	14.6959	
mmH ₂ O	0.101972	1×10 ⁻⁸	1×10 ⁻⁴	9.80665×10 ⁻⁵	9.67841×10 ⁻⁵	1	73.5559×10 ⁻³	1.42233×10 ⁻³	
mmHg	133.322	13.5951	0.00135951	0.00133322	0.00131579	13.5951	1	0.0193368	
lb/in ² (psi)	6.89476×10 ³	703.072	0.0703072	0.0689476	0.0680462	703.072	51.7151	1	

	Air Capacity									
Unit	m ³ /S	L/S	cm ³ /S	m ³ /h	m ³ /min	L/h	L/min	ft/min (scfm)	Gallon/ min UK	Gallon/ min USA
m ³ /S	1	10 ³	106	3.6×10 ³	60	3.6×10 ⁶	60×10 ³	2.12×10 ³	13.2×10 ³	15.85×10 ³
L/S	10-3	1	10 ³	3.6	60×10 ⁻³	3.6×10 ³	60	2.12	13.2	15.85
cm ³ /S	10-6	10-3	1	3.6×10 ⁻³	60×10-6	3.6	60×10 ⁻³	2.12×10-3	13.2×10 ⁻³	15.58×10-3
m ³ /h	0.28×10 ⁻³	0.28	0.28×10 ⁻³	1	16.67×10-3	10 ³	16.67	0.59	3.67	4.4
m ³ /min	16.67×10-3	16.67	16.67×10-3	60	1	60×10 ³	10 ³	35.31	219.97	264.17
L/h	0.28×10 ⁻⁶	0.28×10 ⁻³	0.28	10-3	16.67×10-3	1	16.67×10-3	0.59×10 ⁻³	3.67×10 ⁻³	4.4×10 ⁻³
L/min	16.67×10 ⁻⁶	16.67×10 ⁻³	16.67	60×10 ⁻³	10-3	60	1	35.31×10 ⁻³	219.97×10 ⁻ 3	264×10 ⁻³
ft/min (scfm)	0.47×10 ⁻³	0.47	0.47×10 ³	1.699	28.32×10 ⁻³	1.699×10 ³	28.32	1	6.23	7.48
Gallon/ min UK	75.79×10 ⁻⁶	75.79×10 ⁻³	75.77	0.273	4.55×10 ⁻³	0.273×10 ³	4.55	0.16	1	1.2
Gallon/ min USA	63.09×10 ⁻⁶	63.09×10 ⁻³	63.09	0.227	3.79×10 ⁻³	0.227×10 ³	3.79	0.13	0.83	1

Blower Application

Pressure Roots Blowers:

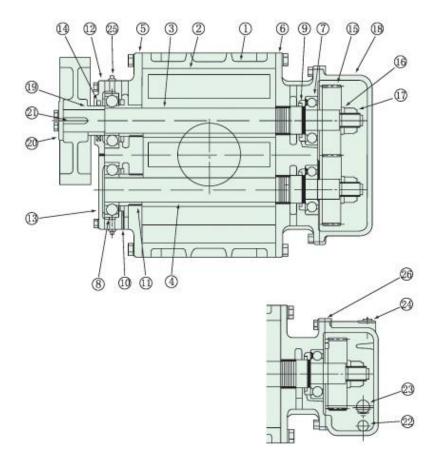
Water Treatment	Aquaculture	Powder and granules transportation
		Powder Gramules
Be used in water treatment plant for water purification and sediment mixing	Be used in a variety of fish pond for oxygen supply and mixing, and also for aquariums and live fish tank	Powder or granules (such as plastic materials, etc.) can be transported by pressure or vacuum
Incinerator	Ballast pump	Sandblast
		Storage bucket Processing pieces
Air combustion and exhaust emissions	Used for chemical liquid unloading and other ballast pumps	Used as air source for blast jet
Booster	Compost fermentation	Cereals Transportation
Exhaust vent	Livestock excrement Sawdust Rice skin	Wheat, rice and etc. Rotary valve
Used for high-pressure exhaust to make the gas into tiny molecules	High-pressure air take into the livestock manure tank to increase contact area of livestock manure and air , also apply to sewage treatment	Cereals such as wheat are transported from the rotary pilot valve with air

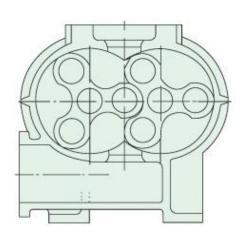
Pipe clearing	Sauna	Plating Bath
		Electrolytic cell
Used to remove dirt and iron dust during pipeline replacement or overhaul	Used for the sauna to provide air bubbles, mainly used for hospitals, hotels and etc.	Use air to stir the electrolyte to keep the electrolyte circulation, and disperse the attached blister to make plating quickly, spread evenly
Produce line drying	Car wash dry	Smoke exhaust
Wind Knife	Wind Knife	Wind Knife
Quickly remove the water or oil on the cleaned items	Dry the car after washing	Exhaust smoke quickly to reduce pollution
Stripping from mold	Air cushion of Cut off machine	Dry air knife
Finished	Cutter Paper	Water drops Dust
Easy to remove the finished product after stamping	Increase buoyancy, easy to move	Use the blower to blow off the tiny dust and water droplets on the circuit board
Feed paper/cloth	Washing machine blow dry	Gas /heavy fuel injection
Cutter Wheel	Water drops	Fuel
Collect plastic, cloth, paper and other scrap generated after trimming	Dried bottles after washing, suitable for food industry	Provide high pressure (2000 mmAq) and sufficient air volume

Vacuum Roots Blowers:

Vacuum packaging	Exhaust dust emissions	Vacuum dehydration
A starting of the start of the	Inhale Tunnel	Wheel Cutter Dry Mud
Vacuum packaging using vacuum suction	Remove dust or toxic gas from tunnels and small construction sites	Pulp dewatering, sludge dewatering, cloth dehydration and etc.
Industrial vacuum	Powder and granules	Draw welding waste
cleaner	transportation	gas
Filter Dust box	Barrel Filter Powder inler	Filter Welding rod
Remove residual debris from the machine	Powder or granules (such as plastic materials, etc.) can be transported by pressure or vacuum	Remove fumes and dust from welding to ensure operator health
Printing machine adsorption		
Printed matter		
Using the adsorption force fixed in printing operations		

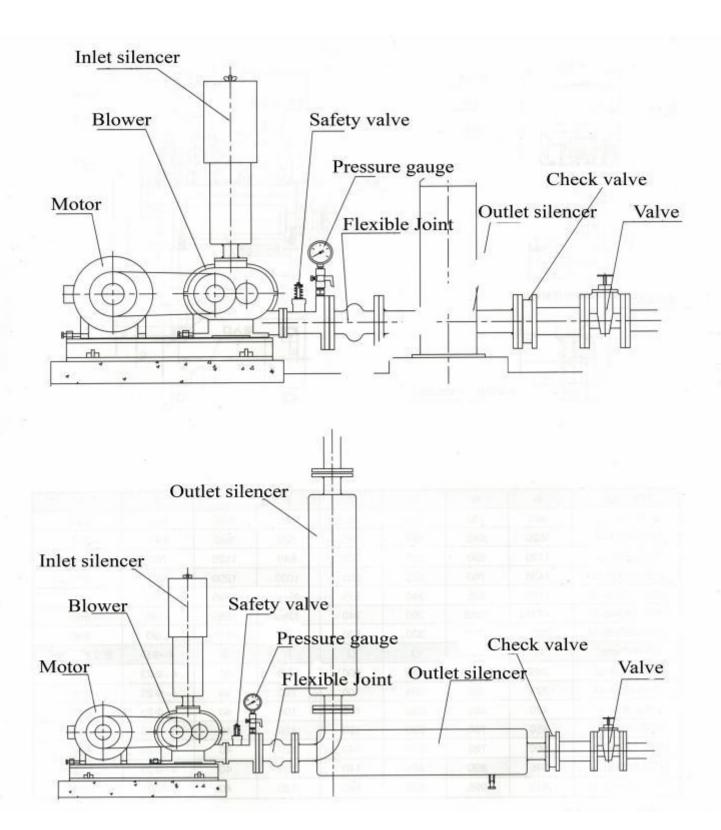
Blower Structure Diagram





No.	Name	Material	Q' ty	No.	Name	Material	Q' ty
1	Shell	HT200	<u> </u>	14	Z sealing ring	Nitrile rubber	2 0
1	Sileii	111200	1	17			1
2	Impeller	HT200	2	15	Gear	35CrM	2
3	Drive shaft	45Cr	1	16	Gear lock washer	Q235	2
4	Driven shaft	45Cr	1	17	Gear lock nut	SS400	2
5	Drive side siding	HT200	1	18	Gearbox	HT200	1
6	Gear side siding	HT200	1	19	Sleeve	45	1
7	Drive bearing	NSK	2	20	End cover	Q235	2
8	Driven bearing	NSK	2	21	Pin	45	1
9	Sealing ring	Nitrile rubber	2	22	Plug	35	1
10	Sealing ring	Nitrile rubber	2	23	Oil gauge		1
11	Bearing sleeve	45	4	24	Vent		1
12	Bearing cover	HT200	1	25	Grease nipple	C3605	2
13	Bearing cover	HT200	1	26	Gearbox seals	Barley paper	2

Pipe installation reference drawing



Blower Accessorie

Inlet silencer

	Model	Dn	D1	D	L	N-Φh	Weight (Kg)
nd	XF-40	Φ40	85	110	220	4- Φ14	4
	XF-50	Φ50	85	150	500	4- Φ14	5
	XF-65	Φ65	110	155	550	4- Φ14	7
	XF-80	Φ80	130	180	800	4- Φ14	15
	XF-100	Φ100	145	207	850	8-Ф18	19
知,请谅解。	XF-125	Φ125	165	260	915	8-Ф18	22
	XF-150	Φ150	200	260	1100	8-Ф18	35
	XF-200	Φ200	280	320	1450	8-Φ20	60
	XF-250	Φ250	350	395	1650	12-Ф20	120
	XF-300	Φ300	400	445	1750	12-Ф22	140

Outlet silencer

	Model	ФЕ	А	В	С	D	N-Φh	Weight (Kg)
	KM-40	Φ40	500	135	110	150	4- Φ19	9
	KM-50	Φ50	600	140	125	165	4- Φ19	12
	KM-65	Φ65	700	165	145	185	4- Φ19	16
	KM-80	Φ80	900	190	160	200	8-Ф19	20
	KM-100	Φ100	1200	217	180	220	8-Ф19	38
Flange	KM-125	Φ125	1400	261	210	250	8-Ф22	45
	KM-150	Φ150	1600	286	240	285	8-Ф22	68
	KM-200	Φ200	1800	320	295	310	8-Ф22	85
	KM-250	Ф250	2000	450	350	395	12-Ф22	130
	KM-300	Φ300	2000	500	400	445	12-Ф22	160

Vertical outlet silencer

→ <u> </u>	Model	ΦF	А	В	С	D	Е	F	G	N-Фh	Weight (Kg)
	RKM-40	Φ40	350	90	125	145	125	110	150	4- Φ18	10
┝┉╢╼╟╼╶┆╶╸╠╴┟	RKM-50	Φ50	450	130	140	165	140	125	165	4- Φ19	15
↓ ↓ ↓ ↓ Flange	RKM-65	Ф65	500	140	170	190	170	145	185	4- Φ19	20
	RKM-80	Φ80	610	150	190	217	190	160	200	8 - Φ19	27
	RKM-100	Φ100	680	160	220	261	220	180	220	8 - Φ19	34
	RKM-125	Φ125	820	200	240	286	240	210	250	8-Ф22	58
	RKM-150	Φ150	940	220	290	370	290	240	285	8-Ф22	80
	RKM-200	Φ200	1060	260	320	420	320	295	340	8-Ф22	97
	RKM-250	Φ250	1250	400	350	500	500	350	395	12-Ф22	140
	RKM-300	Φ300	1300	430	560	560	560	400	445	12-Ф22	180

Flexible joint

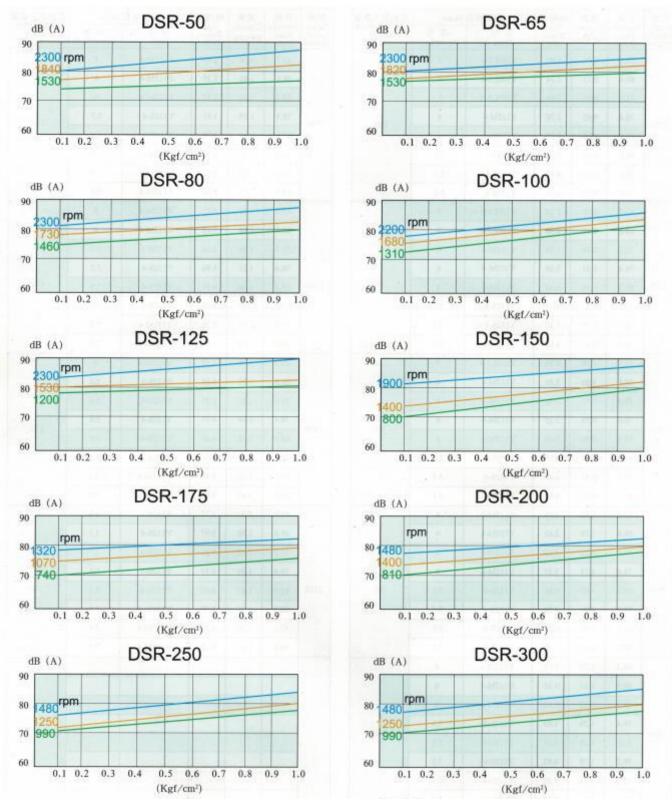
	Model	Φ	D1	D2	L	Т	N-Φh	Weight (Kg)
	KXT-40	Φ40	110	150	90	16	4- Φ18	2
п-ФН	KXT-50	Φ50	125	165	105	18	4- Φ19	3
	KXT-65	Φ65	145	185	115	20	4 -Φ 19	3.5
	KXT-80	Φ80	160	200	135	20	8-Ф19	4
	KXT-100	Φ100	180	220	150	22	8-Ф19	5
	KXT-125	Φ125	210	250	165	24	8-Ф19	6.5
	KXT-150	Φ150	240	285	180	24	8-Ф22	9.5
	KXT-200	Φ200	295	340	190	24	8-Ф22	16
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	KXT-250	Ф250	350	395	230	24	12-Ф22	25
	KXT-300	Ф300	400	445	245	24	12-Ф22	38

Check valve

	Model	Φ	А	В	С	J	Weight (Kg)
	DCV-40	Ф40	20	16	90	40	1.0
	DCV-50	Ф50	25	19	105	50	1.2
	DCV-65	Φ65	36	19	125	65	1.5
	DCV-80	Φ80	46	19	135	80	1.8
	DCV-100	Φ100	67	19	160	100	2.5
	DCV-125	Φ125	88	21	190	125	3.6
	DCV-150	Φ150	108	24	220	150	5.2
	DCV-200	Φ200	138	29	270	200	11.0
	DCV-250	Φ250	200	30	330	250	15.0
	DCV-300	Ф300	240	40	380	300	22.0



Noise test results



Note:

- 1: The noise test result is tested at a distance of 1 meter from the blower.
- 2: The noise level is affected by the length of the line, the number of turns and the surrounding environment.

Common malfunctions and Solution

Malfunctions			Reason	Solution	
	Can not	Can rotated by hand	The motor is damaged	Repair or replace the motor	
	rotate	Can rotated round by	The lobes are locked	Open to repair	
		hand	The impurity in blower	Open to clean	
			Skid, v-belt is too tight or too loose	Adjust v-belt tension	
			Pulley offset	Reset pulley	
			Pulley and belt cover friction	Adjust belt cover	
			Bearing oil lack or aging	To replace the oil	
			Gear oil lack or aging	To replace the oil	
			The safe valve leakage	Adjust the safe valve	
		Abnormal sound or vibration	Foundation insufficient strength	To strengthen the foundation strength	
		Can rotate Overheating	Piping resonance	Eliminate by the silencer and support	
			Exhaust pressure rises abruptly	See <i>X</i> annotated	
			Anchor bolt is too loose	Tighten	
			Rotor interference	Open to repair	
			The impurity in blower	Open to clean	
Blower			Check valve bad	Replace	
	Can		Exhaust pressure rises abruptly	See <i>image and the method</i> and the set of th	
			Temperature of working	Ventilated working	
	Totale		environment exceeds 40 °C	environment	
			Inlet silencer obstruction	Cleaning/replace filter	
		Airflow insufficient	Pipeline leaks	Tighten the pipe connection	
			Inlet silencer obstruction	Cleaning/replace filter	
			The safe valve leakage	Adjust the safe valve	
			V-belt is too loose	Adjust v-belt tension	
			Exhaust pressure rises abruptly	See <i>X</i> annotated	
			Shut off the valve	Fully open the valve	
			The water level rises	Adjust water level	
		Exhaust pressure	Inlet/outlet pipe jams	Cleaning debris	
		Exhaust pressure rises abruptly	Valve bad or twist reversed	Replace or reverse	
			direction	direction twist	
			Airflow overpowered	Reduce round speed or exhaust	
	Oil leak		Lubrication oil overmuch	Refuel to the center of oil standard	

Processing Workshop



Processing Workshop

Advanced Processing Equipment



Gantry Display Milling Machine



CNC Planer



High Precision Machinery Center



CNC Machinery Center



Large Digital Display Horizontal Boring Machine



Precision Grinder



Roots Blowers





























<u>Multistage Centrifugal Blowers</u>













Air Suspension Turbo Blowers









- 1. What's the information should I provide when inquiry?
- A: Air capacity
- B: Pressure
- C: Application
- D: Use environment(Temperature, atmospheric pressure)
- E: Do you need motor?
- Or other specials you give us will be more appreciated.
- 2. What is your warranty?

Our warranty is 12 months after received the roots blower. During the warranty period, replace the damaged parts for free of charge. Out warranty period, to provide timely, high-quality technical services and price concessions spare parts to ensure continuous safe and high-quality equipment operation.

3. How long is the service life of roots blower?

In normal use environment

- A- Service life of blower is more than 10 years.
- B- Service life of Impeller is more than 60,000 hours.
- C- Service life of bearing is more than 30,000 hours.
- D- Service life of gear is more than 60,000 hours.



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