



PARTS LIST OPERATING AND SERVICE MANUAL

RBS BLOWERS

Models RBS 15-225



RB-7-100 Version 02 May 05, 2017

MAINTAIN BLOWER RELIABILITY AND PERFORMANCE WITH GENUINE GARDNER DENVER PARTS AND SUPPORT SERVICES

Factory genuine parts, manufactured to design tolerances, are developed for optimum dependability - - - specifically for your blower. Design and material innovations are born from years of experience with hundreds of different blower applications. When you specify factory genuine parts you are assured of receiving parts that incorporate the most current design advancements manufactured in our state-of-the-art blower factory under exacting quality standards.

Your AUTHORIZED DISTRIBUTOR offers all the backup you require. A worldwide network of authorized distributors provides the finest product support in the blower industry.

- 1. Trained technical representatives to assist you in selecting the correct replacement parts.
- 2. Complete inventory of new machines and new, genuine factory parts.
- 3. A full line of factory tested AEON[®] PD blower lubricants, specifically formulated for optimum performance in all blowers.
- 4. Authorized distributor service technicians are factory-trained and skilled in blower maintenance and repair. They are ready to respond and assist you by providing fast, expert maintenance and repair service.

INSTRUCTIONS FOR DETERMINING BLOWER CONFIGURATION

- 1. Face the blower drive shaft.
- 2. In a **VERTICAL** configuration, air flow is Horizontal.
- 3. In a **HORIZONTAL** configuration, air flow is Vertical.
- 4. In a vertical configuration, a **BOTTOM HAND** exists when the drive shaft is below the horizontal center line of the blower. A **TOP HAND** exists when the drive shaft is above the horizontal center line of the blower.
- 5. In a horizontal configuration, a **RIGHT HAND** exists when the drive shaft is to the right of the vertical center line of the blower. A **LEFT HAND** exists when the drive shaft is to the left of the vertical center line of the blower.

INSTRUCTIONS FOR ORDERING REPAIR PARTS

For pricing, and ordering information contact your nearest AUTHORIZED FACTORY DISTRIBUTOR. When ordering parts, specify Blower **MODEL** and **SERIAL NUMBER** (see nameplate on unit).

Rely upon the knowledge and experience of your AUTHORIZED DISTRIBUTOR and let them assist you in making the proper parts selection for your blower.

To Contact Gardner Denver or locate your local distributor: Visit: www.contactgd.com/mobile

Or

Call: (217)222-5400

GARDNER DENVER LUBRICANT ORDER INFORMATION

Re-order Part Numbers for Factory Recommended Lubricants.

Gear and Drive End

AEON PD Synthetic Lubricant, AEON PD-XP—Extreme Duty Synthetic Lubricant or AEON PD-FG—Food Grade Synthetic Lubricant

AEON PD Synthetic Lubricant

Description	Part Number
1 Quart	28G23
Case/12Quarts	28G24
1 Gallon Container	28G40
Case/6 Gallons	28G41
5 Gallon Pail	28G25
55 Gallon Drum	28G28

AEON PD-XD – Extreme Duty Synthetic Lubricant

Description	Part Number
1 Quart	28G46
Case/12Quarts	28G47
1 Gallon Container	28G42
Case/6 Gallons	28G43
5 Gallon Pail	28G44
55 Gallon Drum	28G45

AEON PD-FG – Food Grade Synthetic Lubricant

Description 1 Quart Case/12Quarts 1 Gallon Container Case/6 Gallons 5 Gallon Pail 55 Gallon Drum Part Number 28H97 28H98 28H333 28H334 28H99 28H100

Drive End

AEON PD Grease

Description Case/10 Tubes (14oz/Tube) Part Number 28H283

Call your local Gardner Denver Distributor to place your order for Gardner Denver lubricants. Your Authorized Gardner Denver Distributor is:

FOREWORD

RBS[®] blowers are the result of advanced engineering and skilled manufacturing. To be assured of receiving maximum service from this machine, the owner must exercise care in its operation and maintenance. This manual is written to give the operator and maintenance department essential information for day-to-day operation, maintenance and adjustment. Careful adherence to these instructions will result in economical operation and minimum downtime.

Danger is used to indicate the presence of a hazard which will cause severe personal injury, death, or substantial property damage if the warning is ignored.

WARNING

Warning is used to indicate the presence of a hazard which can cause severe personal injury, death, or substantial property damage if the warning is ignored.

Caution is used to indicate the presence of a hazard which will or can cause minor personal injury or property damage if the warning is ignored.

NOTICE

Notice is used to notify people of installation, operation or maintenance information which is important but not hazard-related.

SAFETY PRECAUTIONS

Safety is everybody's business and is based on your use of good common sense. All situations or circumstances cannot always be predicted and covered by established rules. Therefore, use your past experience, watch out for safety hazards and be cautious. Some general safety precautions are given below:

A DANGER

Failure to observe these notices could result in injury to or death of personnel.

- Keep fingers and clothing away from revolving fan, drive coupling, etc.
- <u>Do not use the air discharge</u> from this unit for breathing not suitable for human consumption.
- <u>Do not loosen or remove</u> the oil filler plug, drain plugs, covers or break any connections, etc., in the blower air or oil system until the unit is shut down and the air pressure has been relieved.
- <u>Electrical shock</u> can and may be fatal.
- <u>Blower unit must be grounded</u> in accordance with the National Electrical Code. A ground jumper equal to the size of the equipment ground conductor must be used to connect the blower motor base to the unit base.
- <u>Open main disconnect switch</u>, tag and lockout before working on the control.
- <u>Disconnect the blower</u> from its power source, tag and lockout before working on the unit this machine may be automatically controlled and may start at any time.

WARNING

Failure to observe these notices could result in damage to equipment.

- <u>Stop the unit if any repairs or adjustments on or around the blower are required.</u>
- <u>Disconnect the blower</u> from its power source, tag and lockout before working on the unit this machine maybe automatically controlled and may start at any time.
- <u>Do not exceed</u> the rated maximum speed shown on the nameplate.
- <u>Do not operate unit</u> if safety devices are not operating properly. Check periodically. Never bypass safety devices.

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INTRODUCTION YOUR KEY TO TROUBLE FREE SERVICE

Thank you for investing in Gardner Denver quality. The Gardner Denver reputation for rugged dependability has been earned by over 50 years of service in demanding, industrial operations where downtime cannot be tolerated and efficient blower performance is expected.

Your Gardner Denver RBS blower is a precision engineered blower that has been carefully manufactured and thoroughly tested at the state-of the art Gardner Denver Blower Factory in PARMA, ITALY.

As with other precision machinery, there are several relatively simple installation, operation and maintenance procedures that you must observe to assure optimum blower performance. There is no guesswork in the manufacture of your highly advanced RBS blower and there must be none in preparing the blower to get the job done in the field.

The purpose of this manual is to help you properly install, operate and maintain your RBS blower. It is essential that you review all sections of this manual in preparation for installing your blower. Follow the instructions for installing your blower. Follow the instructions carefully and you will be rewarded with trouble-free Gardner Denver RBS service year in and year out.

SECTION 1 EQUIPMENT CHECK

Before uncrating, check the packing slip carefully to be sure all the parts have been received. All accessories are listed as separate items on the packing slip, and small important accessories such as relief valves can be overlooked or lost. After every item on the packing slip has been checked off, uncrate carefully.

NOTICE

Register a claim with the carrier for lost or damaged equipment.



Customers are cautioned to provide adequate protection, warning and safety equipment necessary to protect personnel against hazards involved in installation and operation of this equipment in the system or facility.

STORAGE

Your Gardner Denver Blower was packaged at the factory with adequate protection to permit normal storage for up to six (6) months.

If the unit is to be stored under adverse conditions or for extended periods of time, the following additional measures should be taken to prevent damage.

- 1. Store the blower in a clean, dry, heated (if possible) area.
- 2. Make certain inlet and discharge air ports are tightly covered to prevent foreign material from entering the air box.
- 3. All exposed, non-painted surfaces should be protected against rust and corrosion.
- 4. Provide adequate protection to avoid accidental mechanical damage.
- 5. In high humidity or corrosive environments, additional measures may be required to prevent rusting of the blower internal surfaces.
- 6. To prevent rusting of gears, bearings, etc., the oil reservoirs may be filled with normal operating oil.



Before running the blower, drain the oil and replace to the proper operating level with clean, fresh lubricant.

- 7. Rotate the blower shaft (10 to 25 turns) weekly during storage. Inspect the blower shaft (near the shaft seal area) monthly and spray with rust inhibitor if needed.
- 8. For long term storage (over six (6) months), contact Gardner Denver Compressor Division Customer Service for recommendations.

REMOVING PROTECTIVE MATERIALS

The shaft extension is protected with rust inhibitor which can be removed with any standard solvent.



Follow the safety directions of the solvent manufacturer.

Blower inlet and outlet are temporarily capped to keep out dirt and other contaminants during shipment. These covers must be removed before start-up.

The internal surfaces of all RBS units are mist sprayed with a rust preventative to protect the machine during shipment. Remove this film upon initial startup, using any commercial safety solvent. Position the blower so that the inlet and discharge connections are in the vertical position (vertical airflow). On vertically mounted units, it will be necessary to lay the unit on its side supporting the ends of the unit so as not to restrict the port on the bottom side. Place a shallow pan on the underside of the unit. With the blower disconnected from power, spray the solvent in the top port, rotating the impellers by spinning the shaft manually. Continue this procedure until the unit is visibly clean.

Rotating components will cause severe injury in case of personal contact. Keep hands and loose clothing away from blower inlet and discharge ports.

SECTION 2 INSTALLATION

LOCATION

Install the blower in a well lit, clean dry place with plenty of room for inspection and maintenance.

FOUNDATIONS

For permanent installation we recommend concrete foundations be provided, and the equipment should be grouted to the concrete. It is necessary that a suitable base be used, such as a steel combination base under blower and motor, or a separate sole plate under each. Before grouting, equipment must be leveled, free of all strains, and anchored so no movement will occur during setting of grout. After grout has completely hardened, a recheck is necessary to compensate for shrinkage, etc. If required, add shims under blower feet after final tightening of foundation anchor bolts to remove strain from the blower housing.

Where jack screws or wedges are used during grouting, they must be backed off and wedges removed before final tightening of anchor bolts. Refer to grouting instructions.

Where a concrete foundation is not feasible, care must be taken to insure that equipment is firmly anchored to adequate structural members, restricting movement and vibration.

MOUNTING CONFIGURATIONS

The blower flex-mount design enables horizontal and vertical mounting configurations with top or bottom hand, right or left hand shaft positioning. The units are discharge timed allowing rotation in one direction (refer to Figure 2-1).

REPOSITIONING THE MOUNTING FEET

- 1. Position the mounting feet to the desired location and snug the cap screw.
- 2. Place the blower on its feet on a flat surface.

3. Loosen mounting feet cap screws and level unit up. The bench or blower base flatness should be within .002 of an inch.

NOTICE

If the unit is not flat within .002 of an inch, it will be necessary to shim the blower feet at installation.



FIGURE 2-1 – BLOWER MOUNTING CONFIGURATIONS

4. Secure the mounting feet capscrews to the torque value in Figure 7-9.

NOTICE

When changing mounting configuration, it may be necessary to reposition breather/oil fill (B), oil level gauge (H) and drain plug (A). Refer to Figure 3-1, for correct location.

DRIVE INSTALLATION

When selecting a V-belt drive, check to be sure the shaft overhung load limitation is not exceeded. Refer to FIGURE 2-2, for overhung load calculations and limitations.

Belt drives must be carefully aligned. Motor and blower pulleys must be parallel to each other and in the same plane within 1/32 inch. Belt tension should be carefully adjusted to the belt manufacturer's recommendation using a belt tension gauge. Check tension frequently during the first day of operation.



Over tightening belts leads to heavy bearing loads and premature failure.

On the direct connected units, alignment and lubrication of couplings to specifications of the coupling manufacturer is very important. When mounted drives are supplied from the factory proper alignment has been established before shipment. However, during shipping, handling and installation, it is likely that the alignment has been disturbed and final adjustment must be made before startup.

WARNING

Exceeding overhung load limitations leads to unwarrantable premature bearing failure and shaft breakage.

The location of the sheave on the blower shaft greatly affects the stress in the shaft. The optimum blower sheave positioning is as close as possible to the blower drive cover.

The calculated shaft load must not exceed the maximum allowable load listed in Maximum Belt Load Chart, FIGURE 2-2. If the calculated shaft load exceed the maximum allowable load:

- Increase Sheave Diameters to Reduce Belt Pull
- Use Jackshaft Drive
- Use Direct Coupled or Gearbox Drive

To calculate shaft load for a given V-Belt Drive Arrangement:

• Insert the belt pull into the formula for Calculation of Shaft load, FIGURE 2-2, to arrive at the calculated shaft load.

PIPING

Inlet and discharge connections on all blowers are large enough to handle maximum volume with minimum friction loss. Reducing the pipe diameter on either inlet or discharge will only create additional line loss and increase the overall pressure differential. Excessive weight of piping and fittings will cause internal misalignment and premature wear. Never allow the blower to carry the weight of the pipe. If possible, a spool or sleeve-type expansion joint should be installed between the unit and the piping. Where a flexible connection is not practical, the weight of the rigid connection must be separately supported.

All system piping must be cleaned internally before connecting to the blower.



RBS blowers are shipped dry from the factory. Do not attempt to operate the blower before following proper lubrication instructions. Permanent damage to the gears, bearings and seals will occur.

FIGURE 2-2 – BELT DRIVE OVERHUNG LOAD CALCULATIONS RBS OVERHUNG LOAD



Blower	Gear	size	H	1	xo		Z				
size	mm	inch	mm	inch	mm	inch	mm	inch			
15	60	27	175	6,9	41	16	50	2.0			
25	00	2,1	210	8,3	41	1,0	50	2,0			
35			215	8,5							
45	85	3,3	275	10,8	53	2,1	80	3,1			
46			375	14,8							
55			276	10,9							
65	107	4,2	341	13,4	56	2,2	110	4,3			
66			451	17,8							
75			316	12,4							
85	135	5,3	431	17,0	62	2,4	110	4,3			
86			541	21,3							
95			406	16,0							
105	168	6,6	501	19,7	77	3,0	140	5,5			
106						651	25,6				
115			480	18,9							
125	212	8,3	590	23,2	85	3,3	140	5,5			
126			790	31,1							
135			542	21,3							
145	270	10,6	747	29,4	100	3,9	170	6,7			
155			897	35,3							
165	240	12.4	750	29,5	105	4.4	240	0.2			
175	540	15,4	970	38,2	105	4,1	210	0,5			
205	425	16.7	890	35,0	114	4.5	210	0.2			
225	420	10,7	1240	48,8	114	4,5	210	0,0			



T_o=Max load at z=0 (see table in next page)

RBS OVERHUNG LOAD

Blower	maximum belt load To								
Diowei		[lbs]							
SIZE	0°	45°	90°	135°	180°	225° 2	70° 3	15°	
15	112	90	67	73	79	84	90	101	
25	112	90	67	73	79	84	90	101	
35	360	288	216	234	252	270	288	324	
45	360	288	216	234	252	270	288	324	
46	292	234	175	190	205	219	234	263	
55	585	468	351	380	409	438	468	526	
65	585	468	351	380	409	438	468	526	
66	495	396	297	321	346	371	396	445	
75	899	719	540	585	629	674	719	809	
85	899	719	540	585	629	674	719	809	
86	787	629	472	433	393	492	590	688	
95	1236	989	742	680	618	773	927	1082	
105	1236	989	742	680	618	773	927	1082	
106	1012	809	607	556	506	632	759	885	
115	2698	2158	1619	1484	1349	1686	2023	2360	
125	2698	2158	1619	1484	1349	1686	2023	2360	
126	2158	1727	1295	1187	1079	1349	1619	1888	
135	3372	2698	2023	1855	1686	2108	2529	2951	
145	3372	2698	2023	1855	1686	2108	2529	2951	
155	2698	2158	1619	1484	1349	1686	2023	2360	
165	4496	3597	2698	2473	2248	2810	3372	3934	
175	4496	3597	2698	2473	2248	2810	3372	3934	
205	5620	4496	3372	3091	2810	3513	4215	4918	
225	5620	4496	3372	3091	2810	3513	4215	4918	

AIR FILTERS AND FILTER SILENCERS



Servicing the air filters is one of the most important maintenance operations to be performed to insure long blower life.

Servicing frequency of filter elements is not time predictable. A differential pressure indicator, with a continuous gauge reading, should be installed across the inlet filter. It will tell how much of the service life of the filter element has been used. It will also eliminate both premature filter servicing and premature blower failure due to a plugged filter when the filter pressure drop is used to establish maintenance points. In all cases refer to the filter manufacturer's service instructions. Due to the many types of filters, it is not practical to give specific instructions covering all models.

NOTICE

No matter what type of filter is used, always make sure all seats, gaskets, clamps and hose connections on the filter and inlet line are absolutely air tight. Each time the filter is serviced, inspect interior of the blower for dirt.

SECTION 3 LUBRICATION



- A. OIL DRAIN PLUG
- B. BREATHER/OIL FILL
- C. OIL LEVEL GAUGE

FIGURE 3-1 – LUBRICATION

DRIVE END LUBRICATION (For Dual Splash Lube Blowers)

At the drive end, the bearings are lubricated by the slinger, which must be on the lowest rotor when in a vertical configuration.

Approximate oil sump capacities are listed in Figure 3-2.

NOTICE

Machines are shipped without oil in the sump. Do not operate before adding lubricant.

Lubrication Instructions

Filling procedure

Refer to Figure 3-1. Remove the breather (B) from the drive cover. Add oil to the drive sump until oil reaches the center of the oil level gauge (C). Secure breather (B) in the drive cover.

Add fresh oil as required to maintain proper level. The oil level should be at the middle of the sight glass when the machine is not operating. Refer to Figure 3-2, for approximate oil capacities.

Approximate Sump capacity in pints or ounces								
SIZE	HOF	RIZONTAL CONFIGUR	ATION	VERTICAL CONFIGURATION				
	GEARS	DRIVE	TOTAL	GEARS	DRIVE	TOTAL		
15-25	0.8 PT (13 oz.)	0.6 PT (11 oz.)	1.5 PT (24 oz.)	0.4 PT (7 oz.)	0.2 PT (4 oz.)	0.6 PT (11 oz.)		
35-45-46	1.5 PT (25 oz.)	0.8 PT (13.5 oz.)	2.4 PT (38 oz.)	0.9 PT (15 oz.)	0.5 PT (8 oz.)	1.4 PT (24 oz.)		
55-65-66	2.5 PT (40 oz.)	1.2 PT (20 oz.)	3.7 PT (60 oz.)	1.2 PT (20 oz.)	0.6 PT (10 oz.)	1.8 PT (30 oz.)		
75-85-86	4.2 PT (67 oz.)	1.8 PT (30 oz.)	6 PT (97 oz.)	1.8 PT (30 oz.)	0.8 PT (13 oz.)	2.7 PT (44 oz.)		
95-105-106	7.3 PT (117 oz.)	3.3 PT (53 oz.)	10.7 PT (171 oz.)	3.3 PT (53 oz.)	1.6 PT (27 oz.)	5 PT (81 oz.)		
115-125-126	10 PT (161 oz.)	5.8 PT (94 oz.)	15.9 PT (255 oz.)	6.5 PT (104 oz.)	3.7 PT (60 oz.)	10 PT (165 oz.)		
135-145-155	22 PT (352 oz.)	12.6 PT (202 oz.)	34.6 PT (554 oz.)	12.6 PT (202 oz.)	7.3 PT (118 oz.)	20 PT (319 oz.)		
165-175	37 PT (604 oz.)	21 PT (336 oz.)	58.8 PT (941 oz.)	-	-	-		
205-225	63 PT (1008 oz.)	33 PT (538 oz.)	96.6 PT (1546 oz.)	-	-	-		

RBS Series, Dual Splash Lube Blower Oil Capacities

Note: Quantities are for purchase estimates only.

FIGURE 3-2 – APPROXIMATE OIL CAPACITIES

GEAR END LUBRICATION (Dual Splash Lube Blowers)

At the gear end, the timing gear teeth are lubricated by being partially submerged in oil. The gear teeth serve as oil slingers for gear end bearings.

Approximate oil sump capacities are listed in Figure 3-2.

WARNING

Do not overfill as this will tend to cause excessive heating of the gears and may damage the unit.

NOTICE

Machines are shipped without oil in the sump. Do not operate before adding lubricant.

LUBRICATION INSTRUCTIONS

Filling procedure Refer to FIGURE 3-1. Remove the breather (B) from the gear cover. Add oil to the gear case until oil reaches the center of the oil level gauge (C). Secure breather (B) in the gear cover.

Add fresh oil as required to maintain proper level. The oil level should be at the middle of the sight glass when the machine is not operating. Refer to Figure 3-2.for approximate oil capacities.

RECOMMENDED LUBRICANT

AEON PD Synthetic Blower Lubricant is recommended. Refer to FIGURE 3-3, for AEON PD, AEON PD-FG (Food Grade) and AEON PD-XD (Extreme Duty) part numbers. Order AEON PD from your Gardner Denver Distributor or call Gardner Denver directly.

Convenient Package Sizes	AEON PD Part No.	AEON PD-FG Part No.	AEON PD-XD Part No.
1 quart	28G23	28H97	28G46
Case	28G24	28H98	28G47
12 quarts			
1 gallon	28G40	28H333	28G42
Case	28G41	28H334	28G43
6 gallons			
5 gallon pail	28G25	28H99	28G44
55 gallon drum	28G28	28H100	28G45

FIGURE 3-3 – AEON PD SYNTHETIC LUBRICANT

AEON PD is formulated especially for positive displacement blower service to provide maximum blower protection at any temperature. One fill of AEON PD will last a minimum of 4 times longer than a premium mineral oil. Refer to FIGURE 3-4.

		Ambient Temperatures				
		Less than 10° F	10°F to 32°F	32°F to 90°F	Greater than 90°F	
	Less than 32°F	AEON PD AEON PD-FG	AEON PD AEON PD-FG			
Blower Discharge Temperature	32° F to 100° F	AEON PD AEON PD-FG	AEON PD AEON PD-FG	AEON PD AEON PD-FG		
	100° F to 225°F	AEON PD AEON PD-FG	AEON PD AEON PD-FG	AEON PD AEON PD-FG	AEON PD AEON PD-FG	
	225° F to 300° F	AEON PD AEON PD-FG	AEON PD AEON PD-FG	AEON PD AEON PD-FG	AEON PD XD	
	Greater than 300°F			AEON PD XD	AEON PD XD	

FIGURE 3-4 – SYNTHETIC LUBRICANT CHART

AEON PD Synthetic Lubricant should be drained after 6000 hours of operation. Re-fill with fresh AEON PD oil. If mineral oil is used, perform the above oil change maintenance every 1500 hours. Recommended service intervals are for normal blower operating conditions. Severe operating conditions may warrant more frequent oil changes. Laboratory analysis of lubricant should be used to help determine the optimum oil change interval.

For best performance and equipment protection, use AEON PD Synthetic Lubricant, which has been specifically formulated for positive displacement blowers.

NOTICE

Flush the oil whenever a change is made from one type of oil to another.

Drain the current lubricant as thoroughly as possible. Refill with the new lubricant. Fill to normal level of the blower, which is at the middle of the sight glass when the machine is not operating. Run the blower for one hour. Shut off the blower and drain the lubricant completely. Refill the blower again with the new lubricant.

SECTION 4 OPERATION

Future operating problems can be avoided if proper precautions are observed when the equipment is first put into service.

Before starting under power, the blower should be turned over by hand to make certain there is no binding or internal contact.

Each size blower has limits on pressure differential, running speed and discharge temperature which must not be exceeded. These limits are shown in "Maximum Operating Limitations", FIGURE 4-1, below.



Operating beyond the specified operating limitations will result in damage to the unit.

It is important that the pressures and temperatures are measured directly at the ports of the blower to avoid error that may be caused by intervening pipe runs, fittings, etc.

Relief valves must be used to protect against excessive pressure or vacuum conditions. These valves should be tested at initial startup to be sure they are adjusted to relieve at or below the maximum pressure differential rating of the blower.

NOTICE Relief valves should be placed as close as possible to the blower inlet or discharge.

In some instances, pressure may be relieved at a lower point than the blower maximum in order to protect the motor or the equipment served by the blower.

Discharge temperature switches are recommended to protect against excessive inlet restriction or inlet temperatures. Check valves in the discharge line on pressure blowers and in the inlet line on vacuum blowers are recommended to protect the blower from motoring backwards when shut down under load.

LIMITATIONS

For information regarding limitations, refer to FIGURE 4-1, below.

	RPM		P1 (ppi)		D2 D1 (ppi)	T1		T2	T2-T1
Size			i i (psi)		F2-F1 (psi)	(<°F)		(<°F)	(<°F)
	MAX	MIN (1)	MAX	MIN	MAX	MAX	MIN	MAX	MAX
15	5000				13.05				230
25	5000	1200	15.95	2.9	10.15	122	-13	266	194
35					14.5				266
45	5000	1000	15.95	2.9	14.5	122	-13	302	230
46					10.15				194
55					14.5				266
65	4800	900	15.95	2.9	1.45	122	-13	302	230
66					10.15				194
75					14.5				266
85	3800	700	15.95	2.9	14.5	122	-13	302 (2)	230
86					10.15				194
95					14.5				266
105	3000	550	15.95	2.9	14.5	122	-13	302 (2)	230
106					10.15				194

115					14.5				266
125	2400	450	15.95	2.9	14.5	122	-13	302 (2)	230
126					10.15				194
135	1800				14.5				266
145	2000	350	15.95	2.9	14.5	122	-13	302 (2)	230
155	2000				10.15				194
165	1500				14.5			202 (2)	266
175	1500	300	15.95	2.9	14.5	122	-13	302 (2)	230
205	1200				14.5			302 (2)	230
225	1200	250	15.95	2.9	10.15	122	-13	JUZ (Z)	194

DO NOT EXCEED THESE LIMITS

NOTICE

Blower speed, line losses, elevation, and increased inlet temperatures will affect the maximum operating limitations. The minimum RPM for the blowers is based on lubrication only. The blowers may only be operated down to the minimum RPM, when the temperature rise and discharge temperature are below the maximum limitations as shown.

FIGURE 4-1 – MAXIMUM / MINIMUM OPERATING LIMITATIONS

- (1) Resonance phenomena in the plant are possible when the rotation speed is close to the minimum.
- (2) 320°F for blowers /R-V

4.1 Flow adjustment

Change transmission ratio Change frequency of the motor Use a two-speed motor Discharge excess flow and silence it

WARNING

Do not use relief valve to discharge excess flow Do not recirculate flow to blower inlet. Do not adjust flow by throttling inlet or outlet pipe

4.2 Noise level

Noise level of the blower is indicated at page 4 as Sound Pressure Level according to ISO 3476 at 1m distance from the blower and in free air (tolerance+/- 2dB(A))

WARNING

For high compression ratio and for high speed of rotation noise level of blower can be higher than 85 dB(A)

BLOWER STARTUP CHECKLIST

This startup procedure should be followed during the initial installation and after any shutdown periods or after the blower has been worked on or moved to new location. It is suggested that the steps be followed in sequence and checked off ($\sqrt{}$) in the boxes provided.

- 1. Check the unit and all piping for foreign material and clean if required.
 - 2. Check the flatness of the feet and the alignment of the drive. Feet that are bolted down in a bind can cause housing distortion and internal rubbing. Misaligned V-drives can cause the rotors to rub against the headplates and cause a reduction in the volumetric efficiency of the unit. Misaligned couplings can ruin bearings.
- 3. If the blower is V-belt driven, check the belt tension and alignment. Over-tensioned belts create heavy bearing/shaft loads which lead to premature failure.
- 4. Be sure adequate drive guards are in place to protect the operator from severe personal injury and incidental contact.
 - 5. Check the unit for proper lubrication. Proper oil level cannot be over-emphasized. Too little oil will ruin bearings and gears. Too much oil will cause overheating and can ruin gears and cause other damage. Insure that grease lubricated bearings are properly lubricated.
- 6. With motor electrical power locked out and disconnected, turn the drive shaft by hand to be certain the impellers do not bind.
- 7. "Jog" the unit with the motor a few times to check that rotation is in the proper direction, and to be certain it turns freely and smoothly.
 - 8. The internal surfaces of all RBS units are mist sprayed with a rust preventive to protect the machine during the shipping and installation period. This film should be removed upon initial startup.
- 9. Start the unit and operate 15 minutes at no load. During this time, check for hot spots and other indications of interference.
- 10. Apply the load and observe the operation of the unit for one hour. Check frequently during the first day of operation.
- 11. If malfunctions occur, do not continue to operate. Problems such as knocking rotors can cause serious damage if the unit is operated without correction.

SAFETY PRECAUTIONS

- 1. Do not operate blower with open inlet or outlet port.
- 2. Do not exceed specified vacuum or pressure limitations.
- 3. Do not operate above or below recommended blower speed range.
- 4. Blower is not to be used where non-sparking equipment is specified.
- 5. Do not operate without belt guard or coupling shield.



Do not exceed sheave or coupling manufacturer's rim speed limit.

6. The blower and blower discharge piping may be extremely hot and cause skin burns on contact.

TROUBLE SHOOTING

No matter how well the equipment is designed and manufactured, there may be times when servicing will be required due to normal wear, the need for adjustment, or various external causes. Whenever equipment needs attention, the operator or repairman should be able to locate the cause and correct the trouble quickly. The Trouble Shooting Chart below is provided to assist the mechanic in those respects.

PROBLEM	POSSIBLE CAUSES	SOLUTION
	1. Unit out of time.	1. Re-time impellers
	2. Distortion due to improper	Check mounting alignment and
	mounting or pipe strains.	relieve pipe strains.
Knocking	3. Excessive pressure differential.	Reduce to manufacturer's
KHOCKING		recommended pressure. Examine relief
		valve, re-set if necessary.
	4. Worn gears.	Replace timing gears.
	5. Worn bearings.	5. Replace bearings
	1. Too much oil in gear case.	1. Reduce oil level.
	Too low operating speed.	Increase blower speed.
	Dirty air Filter.	Clean or replace air filter
Excessive blower temperature	Clogged filter or muffler.	Remove cause of obstruction.
Excessive blower temperature.	5. Excessive pressure differential.	Reduce pressure differential
		across the blower.
	Worn impeller clearances.	6. Replace impeller.
	7. Internal contact.	7. Correct clearances.
	 Insufficient assembled 	 Correct clearances.
	clearances.	
Impeller and or tip drag	Case or frame distortion.	Check mounting and pipe strain.
impeller end of tip drag.	Excessive operating pressure.	3. Remove cause.
	Excessive operating	4. Remove cause
	temperature.	
	 Slipping belts. 	1. Tighten belts.
Lack of volume.	2. Worn clearances.	Re-establish proper clearances.
	Dirty air filter	Clean or replace air filter.
Excessive bearing or dear wear	1 Improper lubrication	1. Correct lubrication level. Replace dirty
Excessive searing of gear wear.		oil.
	1. Headplate, gear case or drive	1. Clean vents.
Loss of oil.	cover vents plugged.	
	2. Worn Seal.	2. Replace seals.

SECTION 5 MAINTENANCE

FIGURE 5-1 – MAINTENANCE CHECK LIST

												F	REQ	UEN	Y												
	[Daily	1	W	eek	ly	3	wee	ks	Π	6 v	vee	ks	12	2 we	eks	2	4 we	eks	s	36	we	eks	!	52 v	vee	ks
Durby Cycles See poter		ard	e		ard	e		ard	le	11		ard	e	Г	ard	e	Г	r d	9	υ		ard	e		Т	ard	ē
Duty Cycle. See notes	Ħ	anda	Len	보	anda	Ter	Ħ	and a	ren		Ħ	anda	Len	Ħ	nd i	Len	1	i ĝ		2	Ħ	and a	Le l		Ľ	ğ	ren
	Ľ.	St	Ä	Ľ.	St	Ä	Ľ.	ŝ	Ä		Ľ.	ŝ	Ä	Ľ.	Š	Ä		÷	i à	8	Ę.	St	Ä		9	š	Ä
Bare Blower																											
Lube level				<u> </u>											_		H	-		-1				╎┝	\perp	_	
Lube Sample*																	H			-							
Lube change** 1* 2*																1*	H		2	•							
Grease ***																	L			_							
Lube flush**** 1* 2*																1*	L		2	•					- 		
Lube Temperature																	L										
Discharge Temperature																											
Discharge Pressure																											
Vibration																											
System Components*****																											
Air filter Inspect																											
Air filter Change****** 1* 2*] [1•			2*											
Expansion Joint Inspect										1 [Г							1 [
Silencer Inspect										1																	
Check valve inspect] [
Check valve Test										1														1 [
PRV inspect] [
PRV Test										$\left \right $																	
Duty Cycle: The intervals stated	are g	gene	ral r	ecom	men	datio	ons ai	nd sh	ould	l be	e adj	uste	d foi	r acti	ıal si	te co	nditi	ions.									
Light: 8-10hr day 40hr week																											
Standard:8-24hr day 40-168hr w	eek																										
Extreme: 8-24hr day 40-168hr w	eek	High	/Lov	v Am	bient	Ten	npera	ture	, Hu	ımi	idity	and	Alti	tude;	Higl	h Envi	iron	ment	al C	ont	amiı	iate	s;				
High cycling of system pressure,	/flow	v																									
*Lube Sample: A lube sampling	progr	ram	is th	e reco	omm	ende	ed me	thod	l of d	let	term	ining	g lub	rican	t life												
**Lube Change: The lube change	inte	rval	s are	base	d on	Aeo	n PD	lubri	cant	s a	and g	reas	ies.														
Minimum 52 week change may	vary	dep	enda	nt up	on p	roce	ss or	envi	ronm	ner	ntal d	ond	ition	s and	l lub	e sam	ple	resu	lts								
Note: Duty Cycle may not accrue	e 600)0hrs	at 5	i2 we	eks .	Ext	reme	Duty	/ (1•	&	2*) i	nay	requ	ire i	ncrea	ased f	requ	iency	/ de	pen	dant	upo	n				
lube sample results																											
*** Grease: Do Not Over Grease	e ens	ure	that	greas	e ve	nts a	re cl	ear to	o exp	pel	l con	tam	inate	ed gro	ease												
Note: Not all models have greas	e lub	oe be	arin	gs																							
****Lube Flush: Periodic cleanin	g of	lube	sum	ips ar	id gr	ease	vent	s is r	equi	rec	d to i	remo	ove a	accur	nula	ted co	onta	mina	tes								
Note: Extreme Duty (1*& 2*) may require increased frequency dependant upon Lube Sample results																											
*****System Components: System components are not typically supplied by Gardner Denver.																											
Note: Contact the system component provider or packager for appropriate service intervals.																											
******Air Filter Change: The air	filte	r cha	inge	inter	val is	s dep	enda	nt u	pon e	env	viron	mer	ital c	ondi	tions												
Note: Extreme Duty (1*& 2*) m	ay re	quir	e inc	rease	d fre	eque	ncy d	epen	dant	t u	pon t	filte	r elei	ment	diff	erent	ial p	ressi	ıre								

SECTION 6 DISASSEMBLY AND ASSEMBLY INSTRUCTIONS

Disassembly the blower within the guarantee period results in the cancellation of the guarantee.

Disassembly, repair work and reassembling of the blower must be carried out only by qualified personnel and with the aid of suitable equipment and relevant manual.

This manual provides both the assembly and disassembly operations necessary for ordinary maintenance. For any references to components see the drawings at pages 29.

NOTICE

Warranty does not cover damages caused by operations carried out incorrectly during disassembly and/or reassembling of the blower.

DISASSEMBLY

Before starting disassembly stop the blower by following the procedure described at paragraph 6

PREPARATION OF THE BLOWER

Disassemble the drive components (pulleys, coupling) following manufacturer's instructions if there are locking devices or by means of an extractor if attached directly onto the shaft.

WARNING

Do not hammer the shaft coupling or pulley

AWARNING

Dispose the used oil in accordance with local regulations

DISASSEMBLY OF DRIVE SIDE SUMP

Remove the key 30. Fix the side cover 5A by four clamps at least. Loose the fixing screws and extract the sump 12A and extract it.

Reassembling

Before reassembling, thoroughly clean all components and lubricate with oil those components, which have to slide over each other

Reassembling of drive side sump

Lubricate the lip of the seal and sliding housing on the shaft with grease Mount the sump 12A on the cover SA with a new gasket 50 in between.

WARNING

Do not damage the lip of the ring 43 or the seal faces of the mechanical seal for /TMS version

Secure the sump 12A with the relevant screws.

REINSTALL THE BLOWER

Couple the motor as shown in paragraph 4.4.1 04.4.2 Refill the sump 12A with new lubricating oil as per paragraph 6.1.2.

7.1 RBS 15-25 Sectional drawing, FIGURE 7-1



Itom	Description	Otr	RBS 15	RBS 25
nem	Description	Qiy.	Part Number	Part Number
1	CASING	1	RB3204510301	RB3204520301
2B	SHAFT+ROTOR P	1	RB3195680305	RB3195700305
2C	SHAFT+ROTOR S	1	RB3195690305	RB3195710305
5A	COVER DRIVE SIDE	1	RB3215430301	RB3215430301
5B	COVER DRIVEN SIDE	1	RB3215430301	RB3215430301
11A	DRIVING GEAR	1	RB3117540108	RB3117540108
11B	DRIVEN GEAR	1	RB3117540108	RB3117540108
12A	OIL SUMP DRIVE END	1	RB3167140301	RB3167140301
12B	OIL SUMP NON DRIVE END	1	RB3312160301	RB3312160301
16A	LUBRICATING DISK – DRIVE	1	RB3152011203	RB3152011203
16B	LUBRICATING DISK – DRIVEN	1	RB3125791203	RB3125791203
17	BEARING LOCK DISK	1	RB3152701240	RB3152701240
20	SEALING CHAMBER	4	RB3209830310	RB3209830310
23A	OIL SPLASH DISK	2	RB3195721204	RB3195721204
23B	OIL SPLASH DISK	2	RB3195721204	RB3195721204
26	LOCK NUT	2	RB1595600172	RB1595600172
27B	SCREW	1	RB1525000116	RB1525000116
30	KEY 'A'	1	RB1805510124	RB1805510124
31	BEARING	1	RB3000440100	RB3000440100
32	BEARING	1	RB1502100100	RB1502100100
33	BEARING	2	RB3000460100	RB3000460100
35	BEARING PLATE	1	RB3152070100	RB3152070100
35B	SHAFT PROTECTION	1	RB3158871051	RB3158871051
37	INTERNAL RING	1	RB2022930100	RB2022930100
43	SEAL RING	1	RB3008480954	RB3008480954
50	GASKET	2	RB3159671005	RB3159671005
68A	PIN	4	RB3140070124	RB3140070124
68B	PIN	2	RB3140070124	RB3140070124
72	PLUG	2	RB1530000309	RB1530000309
75	PLUG	1	RB2035391006	RB2035391006
75C	PLUG	1	RB1518700901	RB1518700901
76	PLUG	1	RB1519000901	RB1519000901
77	PLUG	1	RB1519700901	RB1519700901
78	PLUG	1	RB2035391006	RB2035391006
79	PLUG	2	RB2022880901	RB2022880901

7.2 RBS 35-106 Sectional drawing, FIGURE 7-2



ltem	Description	Otv	RBS 35	RBS 45	RBS 46	RBS 55	RBS 65	RBS 66
nom	Description	Giy.	Part Number					
1	CASING	1	RB3175780301	RB3210300301	RB3210310301	RB3166260301	RB3181710301	RB3181720301
2B	SHAFT+ROTOR P	1	RB3202400305	RB3202420305	RB3202440305	RB3263010305	RB3263030305	RB3263050305
2C	SHAFT+ROTOR S	1	RB3202390305	RB3202410305	RB3202430305	RB3263020305	RB3263040305	RB3263060305
5A	COVER DRIVE SIDE	1	RB3202130301	RB3202130301	RB3202130301	RB3188600301	RB3188600301	RB3188600301
5B	COVER DRIVEN SIDE	1	RB3123660301	RB3123660301	RB3123660301	RB3188610301	RB3188610301	RB3188610301
11A	DRIVING GEAR	1	RB3176720108	RB3176720108	RB3176720108	RB3182550108	RB3182550108	RB3182550108
11B	DRIVEN GEAR	1	RB3176730108	RB3176730108	RB3176730108	RB3182560108	RB3182560108	RB3182560108
12A	OIL SUMP DRIVE END	1	RB3202330301	RB3202330301	RB3202330301	RB3188620301	RB3188620301	RB3188620301
12B	OIL SUMP NON DRIVE END	1	RB3312170301	RB3312170301	RB3312170301	RB3312180301	RB3312180301	RB3312180301
16A	LUBRICATING DISK – DRIVE	1	RB3199401203	RB3199401203	RB3199401203	RB3186521203	RB3186521203	RB3186521203
16B	LUBRICATING DISK – DRIVEN	1	RB3135821203	RB3135821203	RB3135821203	RB3182591203	RB3182591203	RB3182591203
17	BEARING LOCK DISK	1	RB3050770109	RB3050770109	RB3050770109	RB3192730100	RB3192730100	RB3192730100
20	SEALING CHAMBER	4	RB3077670318	RB3077670318	RB3077670318	RB3077680318	RB3077680318	RB3077680318
22	GEAR SPACER	2	RB3135830157	RB3135830157	RB3135830157	RB3182640157	RB3182640157	RB3182640157
23A	OIL SPLASH DISK	1	RB3050791204	RB3050791204	RB3050791204	RB3051201204	RB3051201204	RB3051201204
23B	OIL SPLASH DISK	2	RB3050791204	RB3050791204	RB3050791204	RB3051201204	RB3051201204	RB3051201204
23C	OIL SPLASH DISK	1	RB3050791204	RB3050791204	RB3050791204	RB3051201204	RB3051201204	RB3051201204
25	SEALING SPACER	4	RB3202501252	RB3202501252	RB3202501252	RB3262480310	RB3262480310	RB3262480310
26	LOCK NUT	2	RB3005420125	RB3005420125	RB3005420125	RB1506000125	RB1506000125	RB1506000125
27B	SCREW	2	RB1524400116	RB1524400116	RB1524400116	RB1526900116	RB1526900116	RB1526900116
30	KEY 'A'	1	RB1529100124	RB1529100124	RB1529100124	RB1529300124	RB1529300124	RB1529300124
31	BEARING	1	RB2041610100	RB2041610100	RB2041610100	RB2035190100	RB2035190100	RB2035190100
32	BEARING	1	RB1503000100	RB1503000100	RB1503000100	RB1502400100	RB1502400100	RB1502400100
33	BEARING	1	RB2046180100	RB2046180100	RB2046180100	RB1504400100	RB1504400100	RB1504400100
35	BEARING COVER	2	RB3098000141	RB3098000141	RB3098000141	RB3183150141	RB3183150141	RB3183150141
35B	SHAFT PROTECTION	2	RB3202071051	RB3202071051	RB3202071051	RB3183401051	RB3183401051	RB3183401051
37	INTERNAL RING	1	RB2038620100	RB2038620100	RB2038620100	RB2033490100	RB2033490100	RB2033490100
43	SEAL RING	1	RB1987640954	RB1987640954	RB1987640954	RB1978220954	RB1978220954	RB1978220954
45	FLEXIBLE RING	1	RB1516100308	RB1516100308	RB1516100308	RB1516200308	RB1516200308	RB1516200308
50	GASKET	16	RB1964741005	RB1964741005	RB1964741005	RB1978031005	RB1978031005	RB1978031005
63A	COMP. RING	2	RB1993790145	RB1993790145	RB1993790145	RB1993800145	RB1993800145	RB1993800145
64	COMP. RING	6	RB2038630145	RB2038630145	RB2038630145	RB2012570145	RB2012570145	RB2012570145
68A	PIN	1	RB3098080124	RB3098080124	RB3098080124	RB3098080124	RB3098080124	RB3098080124
68B	PIN	4	RB3098080124	RB3098080124	RB3098080124	RB3098080124	RB3098080124	RB3098080124
72	PLUG	2	RB1530000309	RB1530000309	RB1530000309	RB1530000309	RB1530000309	RB1530000309
75	PLUG	2	RB2035010901	RB2035010901	RB2035010901	RB2035010901	RB2035010901	RB2035010901
76	PLUG	1	RB1518700901	RB1518700901	RB1518700901	RB1518700901	RB1518700901	RB1518700901
77	PLUG	3	RB1519700901	RB1519700901	RB1519700901	RB1519800901	RB1519800901	RB1519800901
78	PLUG	4	RB2035391006	RB2035391006	RB2035391006	RB2035391006	RB2035391006	RB2035391006
79	PLUG	2	RB2009420901	RB2009420901	RB2009420901			

ltom	Description	Otv	RBS 75	RBS 85	RBS 86	RBS 95	RBS 105	RBS 106
item	Description	Giy.	Part Number					
1	CASING	1	RB3272480301	RB3181510301	RB3181520301	RB3128190301	RB3206470301	RB3206480301
2B	SHAFT+ROTOR P	1	RB3181240305	RB3181260305	RB3181280305	RB3206490305	RB3206510305	RB3206530305
2C	SHAFT+ROTOR S	1	RB3181230305	RB3181250305	RB3181270305	RB3206500305	RB3206520305	RB3206540305
5A	COVER DRIVE SIDE	1	RB3188630301	RB3188630301	RB3188630301	RB3206440301	RB3206440301	RB3206440301
5B	COVER DRIVEN SIDE	1	RB3188640301	RB3188640301	RB3188640301	RB3206460301	RB3206460301	RB3206460301
11A	DRIVING GEAR	1	RB3182570108	RB3182570108	RB3182570108	RB3206310108	RB3206310108	RB3206310108
11B	DRIVEN GEAR	1	RB3182580108	RB3182580108	RB3182580108	RB3206320108	RB3206320108	RB3206320108
12A	OIL SUMP DRIVE END	1	RB3188650301	RB3188650301	RB3188650301	RB3206420301	RB3206420301	RB3206420301
12B	OIL SUMP NON DRIVE END	1	RB3312190301	RB3312190301	RB3312190301	RB3312200301	RB3312200301	RB3312200301
16A	LUBRICATING DISK – DRIVE	1	RB3183421203	RB3183421203	RB3183421203	RB3205951203	RB3205951203	RB3205951203
16B	LUBRICATING DISK – DRIVEN	1	RB3182601203	RB3182601203	RB3182601203	RB3206351203	RB3206351203	RB3206351203
17	BEARING LOCK DISK	1	RB3182630109	RB3182630109	RB3182630109	RB3206360109	RB3206360109	RB3206360109
20	SEALING CHAMBER	4	RB3077690318	RB3077690318	RB3077690318	RB3205880318	RB3205880318	RB3205880318
22	GEAR SPACER	2	RB3182650157	RB3182650157	RB3182650157	RB3206340157	RB3206340157	RB3206340157
23A	OIL SPLASH DISK	1	RB3052241204	RB3052241204	RB3052241204	RB3205911204	RB3205911204	RB3205911204
23B	OIL SPLASH DISK	2	RB3052241204	RB3052241204	RB3052241204	RB3205911204	RB3205911204	RB3205911204
23C	OIL SPLASH DISK	1	RB3052241204	RB3052241204	RB3052241204	RB3205911204	RB3205911204	RB3205911204
25	SEALING SPACER	4	RB3182670310	RB3182670310	RB3182670310	RB3253100301	RB3253100301	RB3253100301
26	LOCK NUT	2	RB1937640125	RB1937640125	RB1937640125	RB1506300125	RB1506300125	RB1506300125
27B	SCREW	1	RB1524600116	RB1524600116	RB1524600116	RB1524600116	RB1524600116	RB1524600116
30	KEY 'A'	1	RB1529400124	RB1529400124	RB1529400124	RB1805490124	RB1805490124	RB1805490124
31	BEARING	1	RB2077930100	RB2077930100	RB2077930100	RB2077950100	RB2077950100	RB2077950100
32	BEARING	1	RB2032920100	RB2032920100	RB2032920100	RB1503200100	RB1503200100	RB1503200100
33	BEARING	2	RB2032930100	RB2032930100	RB2032930100	RB1505000100	RB1505000100	RB1505000100
35	BEARING COVER	2	RB3183160141	RB3183160141	RB3183160141	RB3206330141	RB3206330141	RB3206330141
35B	SHAFT PROTECTION	1	RB3183411051	RB3183411051	RB3183411051	RB3206371051	RB3206371051	RB3206371051
37	INTERNAL RING	1	RB2033500100	RB2033500100	RB2033500100	RB3256110100	RB3256110100	RB3256110100
43	SEAL RING	2	RB2033510954	RB2033510954	RB2033510954	RB1891180954	RB1891180954	RB1891180954
45	FLEXIBLE RING	16	RB1516300308	RB1516300308	RB1516300308	RB3253090308	RB3253090308	RB3253090308
50	GASKET	2	RB1937601005	RB1937601005	RB1937601005	RB2200241005	RB2200241005	RB2200241005
63A	COMP. RING	6	RB2018270145	RB2018270145	RB2018270145	RB2309610145	RB2309610145	RB2309610145
64	COMP. RING	1	RB2033520145	RB2033520145	RB2033520145	RB2012330145	RB2012330145	RB2012330145
68	PIN	2	RB3140060124	RB3140060124	RB3140060124	RB3128490124	RB3128490124	RB3128490124
68A	PIN	2	RB3140070124	RB3140070124	RB3140070124	RB3119740124	RB3119740124	RB3119740124
68B	PIN	1	RB3140070124	RB3140070124	RB3140070124	RB3119740124	RB3119740124	RB3119740124
69	PIN	1	RB3140060124	RB3140060124	RB3140060124	RB3128490124	RB3128490124	RB3128490124
72	PLUG	2	RB1530000309	RB1530000309	RB1530000309	RB1530000309	RB1530000309	RB1530000309
76	PLUG	2	RB2011510901	RB2011510901	RB2011510901	RB2011510901	RB2011510901	RB2011510901
77	PLUG	2	RB2054010901	RB2054010901	RB2054010901	RB1519800901	RB1519800901	RB1519800901
77A	PLUG	2	RB1519700901	RB1519700901	RB1519700901	RB2054010901	RB2054010901	RB2054010901
78	PLUG	4	RB1519301006	RB1519301006	RB1519301006	RB1519301006	RB1519301006	RB1519301006
79	PLUG	2	RB2011300901	RB2011300901	RB2011300901	RB2011300901	RB2011300901	RB2011300901



Itom	Description	Otv	RBS 115	RBS 125	RBS 135	RBS 145
Item	Description	Qiy.	Part Number	Part Number	Part Number	Part Number
1	CASING	1	RB3129280301	RB3191850301	RB3166290301	RB3194560301
2	SHAFT+ROTOR P	1	RBAR3186160001	RBAR3186180001	RBAR3186380001	RBAR3186400001
2	SHAFT+ROTOR S	1	RBAR3186170001	RBAR3186190001	RBAR3186390001	RBAR3186410001
5A	COVER DRIVE SIDE	1	RB3186740301	RB3186740301	RB3186770301	RB3186770301
5B	COVER DRIVEN SIDE	1	RB3163020301	RB3163020301	RB3186780301	RB3186780301
11A	DRIVING GEAR	1	RB3176800108	RB3176800108	RB3186470108	RB3186470108
11B	DRIVEN GEAR	1	RB3176810108	RB3176810108	RB3186480108	RB3186480108
12A	OIL SUMP DRIVE END	1	RB3186750301	RB3186750301	RB3312250301	RB3312250301
12B	OIL SUMP NON DRIVE END	1	RB3312210301	RB3312210301	RB3312220301	RB3312220301
16A	LUBRICATING DISK – DRIVE	1	RB3186271203	RB3186271203	RB2001781203	RB2001781203
16B	LUBRICATING DISK – DRIVEN	1	RB1311101203	RB1311101203	RB1403301203	RB1403301203
17	BEARING LOCK DISK	1	RB3092870109	RB3092870109	RB3135300109	RB3135300109
20	SEALING CHAMBER	4	RB2000600318	RB2000600318	RB3189300318	RB3189300318
22	GEAR SPACER	2	RB3126420157	RB3126420157	RB3135290157	RB3135290157
23A	OIL SPLASH DISK	1	RB3092861204	RB3092861204	RB3198661204	RB3198661204
23B	OIL SPLASH DISK	2	RB3092861204	RB3092861204	RB3198661204	RB3198661204
23C	OIL SPLASH DISK	1	RB3092861204	RB3092861204	RB3198661204	RB3198661204
24	SPACER - LUBRICATING DISK	1	RB3186280157	RB3186280157	RB3014790157	RB3014790157
25	SEALING SPACER	2	RB3250850301	RB3250850301	RB3203150301	RB3203150301
25B	SEALING SPACER	2	RB3250860301	RB3250860301	RB3203160301	RB3203160301
26	LOCK NUT	2	RB1507400125	RB1507400125	RB1507000125	RB1507000125
27A	LOCK NUT	1	RB1982930125	RB1982930125	RB2034020125	RB2034020125
27B	SCREW	1	RB1998670116	RB1998670116	RB1998670116	RB1998670116
30	KEY 'A'	1	RB1920210124	RB1920210124	RB1501000124	RB1501000124
31	BEARING	1	RB1830760100	RB1830760100	RB1504000100	RB1504000100
32	BEARING	1	RB1918970100	RB1918970100	RB3005370100	RB3005370100
33	BEARING	2	RB1504600100	RB1504600100	RB1504700100	RB1504700100
35	BEARING COVER	2	RB3126440301	RB3126440301	RB3179310301	RB3179310301
35B	SHAFT PROTECTION	1	RB3124151051	RB3124151051	RB3124161051	RB3124161051
36	ROTOR CAP	12	RB3229821205	RB3229821205	RB3150441205	RB3150441205
37	INTERNAL RING	1	RB3256270100	RB3256270100	RB3256280100	RB3256280100
43	SEAL RING	1	RB1628200954	RB1628200954	RB1498300954	RB1498300954
45	FLEXIBLE RING	16	RB3250840308	RB3250840308	RB1516600308	RB1516600308
50	GASKET	2	RB2300261005	RB2300261005	RB2300951005	RB2300951005
63A	COMP. RING	8	RB2018570145	RB2018570145	RB3186490100	RB3186490100
68	PIN	2	RB3128490124	RB3128490124	RB3125290124	RB3125290124
68A	PIN	2	RB3119740124	RB3119740124	RB3125240124	RB3125240124
68B	PIN	1	RB3119740124	RB3119740124	RB3125240124	RB3125240124
69	PIN	1	RB3128490124	RB3128490124	RB3125290124	RB3125290124
72	PLUG	2	RB1530000309	RB1530000309	RB1530000309	RB1530000309
76	PLUG	2	RB1518900901	RB1518900901	RB1518900901	RB1518900901
77	PLUG	4	RB1519800901	RB1519800901	RB1519800901	RB1519800901
78	PLUG	4	RB1519401006	RB1519401006	RB1519401006	RB1519401006
79	PLUG	2	RB2026730901	RB2026730901	RB2026730901	RB2026730901

Itom	Description	Otv	RBS 155	RBS 165	RBS 175	RBS 205	RBS 225
nem	Description	Gty.	Part Number				
1	CASING	1	RB3194570301	RB3163390301	RB3242100301	RB3255340301	RB3312310301
2	SHAFT+ROTOR P	1	RBAR3186420001	RBAR3245220001	RBAR3245240001	RBAR3245260001	RBAR3245280001
2	SHAFT+ROTOR S	1	RBAR3186430001	RBAR3245230001	RBAR3245250001	RBAR3245270001	RBAR3245290001
5A	COVER DRIVE SIDE	1	RB3186770301	RB3188960301	RB3188960301	RB3206850301	RB3206850301
5B	COVER DRIVEN SIDE	1	RB3186780301	RB3188970301	RB3188970301	RB3206860301	RB3206860301
11A	DRIVING GEAR	1	RB3186470108	RB3189240108	RB3189240108	RB3207210108	RB3207210108
11B	DRIVEN GEAR	1	RB3186480108	RB3189250108	RB3189250108	RB3207220108	RB3207220108
12A	OIL SUMP DRIVE END	1	RB3312250301	RB3312260301	RB3312260301	RB3312270301	RB3312270301
12B	OIL SUMP NON DRIVE END	1	RB3312220301	RB3312230301	RB3312230301	RB3312240301	RB3312240301
16A	LUBRICATING DISK – DRIVE	1	RB2001781203	RB2202540955	RB2202540955	RB2201020955	RB2201020955
16B	LUBRICATING DISK – DRIVEN	1	RB1403301203	RB3140470955	RB3140470955	RB3150090955	RB3150090955
17	BEARING LOCK DISK	1	RB3135300109				
20	SEALING CHAMBER	4	RB3189300318	RB3189170318	RB3189170318	RB3206660318	RB3206660318
22	GEAR SPACER	2	RB3135290157	RB3140500157	RB3140500157	RB3150070157	RB3150070157
23A	OIL SPLASH DISK	1	RB3198661204	RB2200690955	RB2200690955	RB2200870955	RB2200870955
23B	OIL SPLASH DISK	2	RB3198661204	RB2200690955	RB2200690955	RB2200860955	RB2200860955
23C	OIL SPLASH DISK	1	RB3198661204	RB2200680955	RB2200680955	RB2200870955	RB2200870955
24	SPACER - LUBRICATING DISK	1	RB3014790157	RB3014790157	RB3014790157	RB3150460109	RB3150460109
24A	SPACER - LUBRICATING DISK	1				RB2001710157	RB2001710157
25	SEALING SPACER	2	RB3203150301	RB3245160301	RB3245160301	RB3245170301	RB3245170301
25B	SEALING SPACER	2	RB3203160301	RB3245390301	RB3245390301	RB3245400301	RB3245400301
26	LOCK NUT	2	RB1507000125	RB3005950125	RB3005950125	RB2022590125	RB2022590125
27A	LOCK NUT	1	RB2034020125	RB1507300100	RB1507300100	RB1981830100	RB1981830100
27B	SCREW	1	RB1998670116	RB1888680100	RB1888680100	RB1981830100	RB1981830100
30	KEY 'A'	1	RB1501000124	RB1805500124	RB1805500124	RB1981840124	RB1981840124
31	BEARING	1	RB1504000100	RB3003290100	RB3003290100	RB3005360100	RB3005360100
32	BEARING	1	RB3005370100	RB1504000100	RB1504000100	RB3008090100	RB3008090100
33	BEARING	2	RB1504700100	RB1504000100	RB1504000100	RB1502000100	RB1502000100
35	BEARING COVER	2	RB3179310301	RB1981410955	RB1981410955	RB1981370955	RB1981370955
35B	SHAFT PROTECTION	1	RB3124161051	RB3150451205			
36	ROTOR CAP	12	RB3150441205	RB2002600108	RB3150451205	RB3150451205	RB3150451205
37	INTERNAL RING	1	RB3256280100	RB2039200954	RB2002600108	RB2005980108	RB2005980108
43	SEAL RING	1	RB1498300954	RB3245300308	RB2039200954	RB1981810954	RB1981810954
45	FLEXIBLE RING	16	RB1516600308	RB2300871005	RB3245300308	RB3245310308	RB3245310308
50	GASKET	2	RB2300951005	RB2021310145	RB2300871005	RB2300861005	RB2300861005
63A	COMP. RING	8	RB3186490100	RB3186800100	RB2021310145	RB2054950145	RB2054950145
67	REGOLATION RING				RB3186800100	RB3206840100	RB3206840100
68	PIN	2	RB3125290124	RB3140520124	RB3140520124	RB3140520124	RB3140520124
68A	PIN	2	RB3125240124	RB3140530124	RB3140530124	RB3140530124	RB3140530124
68B	PIN	1	RB3125240124	RB3140530124	RB3140530124	RB3140530124	RB3140530124
69	PIN	1	RB3125290124	RB3140520124	RB3140520124	RB3140520124	RB3140520124
72	PLUG	2	RB1530000309	RB1530000309	RB1530000309	RB1530000309	RB1530000309
76	PLUG	2	RB1518900901	RB1518900901	RB1518900901	RB1518900901	RB1518900901
77	PLUG	4	RB1519800901	RB1519900901	RB1519900901	RB1519900901	RB1519900901
78	PLUG	4	RB1519401006	RB1836851006	RB1836851006	RB1836851006	RB1836851006
79	PLUG	2	RB2026730901				

RBS 15-25

Kit	300RBS6010		
Postion	Part Number	Description	Qty
23A	RB3195721204	OIL SPLASH DISK	2
23B	RB3195721204	OIL SPLASH DISK	2
26	RB1595600172	NUT	2
31	RB3000440100	BEARING	1
32	RB1502100100	BEARING	1
33	RB3000460100	BEARING	2
37	RB2022930100	INTERNAL RING	1
43	RB3008480954	SEAL RING	1
50	RB3159671005	GASKET	2
75	RB2035391006	PLUG	1
75C	RB1518700901	PLUG	1
76	RB1519000901	PLUG	1
77	RB1519700901	PLUG	1
78	RB2035391006	PLUG	1
79	RB2022880901	PLUG	2

RBS 55-66

Kit	302RBS6010		
Postion	Part Number	Description	Qty
23A	RB3051201204	OIL SPLASH DISK	1
23B	RB3051201204	OIL SPLASH DISK	2
23C	RB3051201204	OIL SPLASH DISK	1
25	RB3262480310	SEALING SPACER	4
26	RB1506000125	LOCK NUT	2
31	RB2035190100	BEARING	1
32	RB1502400100	BEARING	1
33	RB1504400100	BEARING	2
37	RB2033490100	INTERNAL RING	1
43	RB1978220954	SEAL RING	1
45	RB1516200308	FLEXIBLE RING	16
50	RB1978031005	GASKET	2
63A	RB1993800145	COMP. RING	6
75	RB2035010901	PLUG	2
76	RB1518700901	PLUG	2
77	RB1519800901	PLUG	2
78	RB2035391006	PLUG	4

RBS 35-46

Kit	301RBS6010		
Postion	Part Number	Description	Qty
23A	RB3050791204	OIL SPLASH DISK	1
23B	RB3050791204	OIL SPLASH DISK	2
23C	RB3050791204	OIL SPLASH DISK	1
25	RB3202501252	SEALING SPACER	4
26	RB3005420125	LOCK NUT	2
31	RB2041610100	BEARING	1
32	RB1503000100	BEARING	1
33	RB2046180100	BEARING	2
37	RB2038620100	INTERNAL RING	1
43	RB1987640954	SEAL RING	1
45	RB1516100308	FLEXIBLE RING	16
50	RB1964741005	GASKET	2
63A	RB1993790145	COMP. RING	6
75	RB2035010901	PLUG	1
76	RB1518700901	PLUG	2
77	RB1519700901	PLUG	3

RBS 75-86

Kit	303RBS6010		
Postion	Part Number	Description	Qty
23A	RB3052241204	OIL SPLASH DISK	1
23B	RB3052241204	OIL SPLASH DISK	2
23C	RB3052241204	OIL SPLASH DISK	1
25	RB3182670310	SEALING SPACER	4
26	RB1937640125	LOCK NUT	2
31	RB2077930100	BEARING	1
32	RB2032920100	BEARING	1
33	RB2032930100	BEARING	2
37	RB2033500100	INTERNAL RING	1
43	RB2033510954	SEAL RING	2
45	RB1516300308	FLEXIBLE RING	16
50	RB1937601005	GASKET	2
63A	RB2018270145	COMP. RING	6
76	RB2011510901	PLUG	2
77	RB2054010901	PLUG	2
77	RB1519700901	PLUG	2
78	RB1519301006	PLUG	4
79	RB2011300901	PLUG	2

RBS 95-106

		-	
Kit	304RB \$6010		
Postion	Part Number	Description	Qty
23A	RB3205911204	OIL SPLASH DISK	1
23B	RB3205911204	OIL SPLASH DISK	2
23C	RB3205911204	OIL SPLASH DISK	1
25	RB3253100301	SEALING SPACER	4
26	RB1506300125	LOCK NUT	2
31	RB2077950100	BEARING	1
32	RB1503200100	BEARING	1
33	RB1505000100	BEARING	2
37	RB3256110100	INTERNAL RING	1
43	RB1891180954	SEAL RING	2
45	RB3253090308	FLEXIBLE RING	16
50	RB2200241005	GASKET	2
63A	RB2309610145	COMP. RING	6
76	RB2011510901	PLUG	2
77	RB1519800901	PLUG	2
78	RB1519301006	PLUG	4
79	RB2011300901	PLUG	2

RBS 115-126

Kit	305RBS6010		
Postion	Part Number	Description	Qty
23A	RB3092861204	OIL SPLASH DISK	1
23B	RB3092861204	OIL SPLASH DISK	2
23C	RB3092861204	OIL SPLASH DISK	1
25	RB3250850301	SEALING SPACER	2
26	RB1507400125	LOCK NUT	2
27A	RB1982930125	LOCK NUT	1
31	RB1830760100	BEARING	1
32	RB1918970100	BEARING	1
33	RB1504600100	BEARING	2
37	RB3256270100	INTERNAL RING	1
43	RB1628200954	SEAL RING	1
45	RB3250840308	FLEXIBLE RING	16
50	RB2300261005	GASKET	2
63A	RB2018570145	COMP. RING	8
76	RB1518900901	PLUG	2
77	RB1519800901	PLUG	4
78	RB1519401006	PLUG	4
79	RB2026730901	PLUG	2

RBS 135-155

Kit	306RBS6010]	
Postion	Part Number	Description	Qty
23A	RB3198661204	OIL SPLASH DISK	1
23B	RB3198661204	OIL SPLASH DISK	2
23C	RB3198661204	OIL SPLASH DISK	1
25	RB3203150301	SEALING SPACER	2
26	RB1507000125	LOCK NUT	2
27A	RB2034020125	LOCK NUT	1
31	RB1504000100	BEARING	1
32	RB3005370100	BEARING	1
33	RB1504700100	BEARING	2
37	RB3256280100	INTERNAL RING	1
43	RB1498300954	SEAL RING	1
45	RB1516600308	FLEXIBLE RING	16
50	RB2300951005	GASKET	2
76	RB1518900901	PLUG	2
77	RB1519800901	PLUG	4
78	RB1519401006	PLUG	4
79	RB2026730901	PLUG	2

RBS 165-175

Kit	307RBS6010		
Postion	Part Number	Description	Qty
23A	RB2200690955	OIL SPLASH DISK	1
23B	RB2200690955	OIL SPLASH DISK	2
23C	RB2200680955	OIL SPLASH DISK	1
25	RB3245160301	SEALING SPACER	2
26	RB3005950125	LOCK NUT	2
27A	RB1507300100	LOCK NUT	1
31	RB3003290100	BEARING	1
32	RB1504000100	BEARING	1
33	RB1504000100	BEARING	2
37	RB2002600108	INTERNAL RING	1
43	RB2039200954	SEAL RING	1
45	RB3245300308	FLEXIBLE RING	16
50	RB2300871005	GASKET	2
63	RB2021310145	COMP. RING	4
76	RB1518900901	PLUG	2
77	RB1519900901	PLUG	2
78	RB1836851006	PLUG	4

RBS 205	-225		
Kit	308RBS6010		
Postion	Part Number	Description	Qty
23A	RB2200870955	OIL SPLASH DISK	1
23B	RB2200860955	OIL SPLASH DISK	2
23C	RB2200870955	OIL SPLASH DISK	1
25	RB3245170301	SEALING SPACER	2
26	RB2022590125	LOCK NUT	2
27A	RB1981830100	LOCK NUT	1
31	RB3005360100	BEARING	1
32	RB3008090100	BEARING	1
33	RB1502000100	BEARING	2
37	RB2005980108	INTERNAL RING	1
43	RB1981810954	SEAL RING	1
45	RB3245310308	FLEXIBLE PISTON RI	16
50	RB2300861005	GASKET	2
63	RB2054950145	COMP. RING	4
76	RB1518900901	PLUG	2
77	RB1519900901	PLUG	2
78	RB1836851006	PLUG	4

Gardner Denver

RB-3-406 WARRANTY GARDNER DENVER BLOWERS RBS SERIES

GENERAL PROVISIONS AND LIMITATIONS

Gardner Denver (the "Company") warrants to each original retail purchaser ("Purchaser") of its products from the Company or its authorized distributor that such products are, at the time of delivery to the Purchaser, made with good material and workmanship. No warranty is made with respect to:

- 1. Any product which has been repaired or altered in such a way, in the Company's judgment, as to affect the product adversely.
- Any product which has, in the Company's judgment, been subject to negligence, accident, improper storage, or improper installation or application.
- 3. Any product which has not been operated or maintained in accordance with the recommendations of the Company.
- 4. Components or accessories manufactured, warranted and serviced by others. Claims for items described in (4) above should be submitted directly to the manufacturer.

WARRANTY PERIOD

The Company's obligation under this warranty is limited to repairing or, at its option, replacing, during normal business hours at an authorized service facility of the Company, any part which in its judgment proved not to be as warranted within the applicable Warranty Period as follows.

BARE BLOWERS

Basic bare blowers, consisting of all parts within, are warranted for 12 months from date of initial use or 18 months from date of shipment to the first purchaser, whichever occurs first. Any disassembly or partial disassembly of the blower, or failure to return the "unopened" blower per Company instructions, will be cause for denial of warranty.

OTHER COMPONENTS

All other components are warranted for 12months from date of initial use or 18 months from date of shipment to first purchaser, whichever comes first. The Company reserves the right to withdraw the Warranty where evidence indicates application outside the stated performance area, or where there is evidence of abuse

LABOR TRANSPORTATION AND INSPECTION

The Company will provide labor, by Company representative or authorized service personnel, for repair or replacement of any product or part thereof which in the Company's judgment is proved not to be as warranted. Labor shall be limited to the amount specified in the Company's labor rate schedule.

Labor costs in excess of the Company rate schedules caused by, but not limited to, location or inaccessibility of equipment, or labor provided by unauthorized service personnel is not provided by this warranty.

All costs of transportation of product, labor or parts claimed not to be as warranted and, of repaired or replacement parts to or from such service facilities shall be borne by the Purchaser. The Company may require the return of any part claimed not to be as warranted to one of its facilities as designated by the Company, transportation prepaid by Purchaser, to establish a claim under this warranty. Replacement parts provided under the terms of the warranty are warranted for the remainder of the Warranty Period of the product upon which installed to the same extent as if such parts were original components.

DISCLAIMER

THE FOREGOING WARRANTY IS EXCLUSIVE AND IT IS EXPRESSLY AGREED THAT, EXCEPT AS TO TITLE, THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY.

THE REMEDY PROVIDED UNDER THIS WARRANTY SHALL BE THE SOLE, EXCLUSIVE AND ONLY REMEDY AVAILABLE TO THE PURCHASER AND IN NO CASE SHALL THE COMPANY BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES. UNDER NO CIRCUMSTANCES SHALL THE COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, EXPENSES, LOSSES OR DELAYS HOWSOEVER CAUSED.

No statement, representation, agreement, or understanding, oral or written, made by any agent, distributor, representative, or employee of the Company which is not contained in this Warranty will be binding upon the Company unless made in writing and executed by an officer of the Company.

This warranty shall not be effective as to any claim which is not presented within 30 days after the date upon which the product is claimed not to have been as warranted. Any action for breach of this warranty must be commenced within one year after the date upon which the cause of action occurred.

Any adjustment made pursuant to this warranty shall not be construed as an admission by the Company that any product was not as warranted.

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For additional information, contact your local representative or visit: www.contactgd.com/mobile

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