

Customer
Ser. No.
Date
Model

# CONAIR WORTEX

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Part Of The Conair Group

## OWNER'S MANUAL

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### BP SERIES

### GRANULATORS



**WARNING - Reliance on this Manual Could Result in Severe Bodily Injury or Death!**

This manual is out-of-date and is provided only for its technical information, data and capacities. Portions of this manual detailing procedures or precautions in the operation, inspection, maintenance and repair of the product forming the subject matter of this manual may be inadequate, inaccurate, and/or incomplete and cannot be used, followed, or relied upon. Contact Conair at [info@conairgroup.com](mailto:info@conairgroup.com) or 1-800-654-6661 for more current information, warnings, and materials about more recent product manuals containing warnings, information, precautions, and procedures that may be more adequate than those contained in this out-of-date manual.

# FOREWORD

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CONAIR WORTEX sincerely appreciates your choice of equipment and we assure performance to meet your need and, indeed, the equipment will surpass your expectations if normal recommended maintenance methods are observed.

As an owner, you can be proud of CONAIR WORTEX's granulating equipment. You have purchased the finest precision-engineered equipment available. Manufactured with superior workmanship, it will give you many years of efficient operation with the least amount of down time.

This manual provides you with a comprehensive introduction to your new CONAIR WORTEX equipment, along with specified maintenance suggestions. Please use this manual and keep it close at hand for easy reference.

## SAFETY

Detailed safety procedures are included within this manual, and should be reviewed and understood thoroughly.

## ASSISTANCE

When maintenance is required, and you do not find the necessary information in this manual, HELP is but a phone call away. Simply dial our service number listed below.

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# MANUFACTURER'S GENERAL WARRANTY

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CONAIR WORTEX warrants each new product of its own manufacture to be free from defects in material and workmanship, under normal use and service, to the original owner only, for a period of one (1) year (except on knives and screens), subject to the conditions outlined in the Manufacturer's Complete Warranty. Our obligation under this warranty is limited to repair or replacement with a genuine part, any part of the product of our manufacture which is **returned to us within 30 days after the discovery of the defect**, properly identified and transportation charges prepaid, and not more than (6) months after the purchase by the original user, provided that, in our judgement, the part is defective.

Manufacturer will furnish without charge, FOB point of manufacture, a similar genuine part to replace any part of a product of its manufacture which proves to be defective in normal use and service during this period.

**NOTICE**

**For additional warranty information regarding exact obligations and limitations see complete manufacturer's warranty enclosed with packing documents.**

**INSTRUCTION/INSTALLATION WARNING NOTICE**

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READ AND UNDERSTAND THE ENTIRE CONTENTS OF THIS MANUAL BEFORE INSTALLING, OPERATING, OR MAINTAINING THIS EQUIPMENT.

**IMPORTANT NOTICE**  
PLEASE READ BEFORE INSTALLATION  
(DAMAGE OR INJURY COULD OCCUR)

THESE GRANULATORS ARE VERY DIFFERENT COMPARED TO CONVENTIONAL GRANULATORS. PLEASE TAKE A MOMENT AND READ THIS MANUAL BEFORE INSTALLING YOUR CONAIR WORTEX GRANULATOR.

AFTER READING THE MANUAL, IF THERE ARE ANY QUESTIONS, PLEASE CALL:

## SAFE OPERATING PROCEDURES

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Equipment manufactured by CONAIR WORTEX is designed and constructed with "state of the art" precision and every possible safety provision has been incorporated at the time of manufacturing. However, no equipment can be designed for completely safe operation unless it is installed and operated as intended by the manufacturer, and unless it is protected from tampering or misuse by unauthorized personnel.

Those persons such as untrained operators or stray personnel who may be tempted to play with the controls or equipment are considered unauthorized personnel. Therefore, it is very important that the owner and/or operator take the following precautions regarding risks from mechanical components:

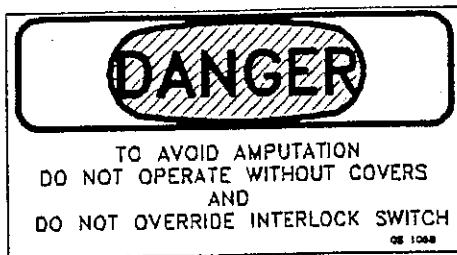
- 1) **All malfunctions or indications of improper operation** at any time during the life of the equipment should be reported to the owner to allow for immediate inspection and repair.
- 2) **No adjustments, modifications, alterations or repairs** should be made to the equipment by anyone other than qualified personnel.
- 3) **All individuals authorized to use the equipment** should be trained in the proper use of controls. All potential danger points should be specifically pointed out to the operators.
- 4) **It is suggested that a periodic review** of safety measures be conducted for all operators.
- 5) **No untrained personnel** should be allowed to operate the equipment at any time.
- 6) **Remember - safety of the operation depends on the owner and his operators.**

**CONAIR WORTEX MAKES NO WARRANTIES REGARDING SAFETY OF THE EQUIPMENT UNLESS THESE SAFETY INSTRUCTIONS ARE OBSERVED.**

# SAFE OPERATING PROCEDURES

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*figure 1*



*figure 2*

## PRECAUTIONS

1. ALWAYS DISCONNECT POWER AND LOCKOUT COMPLETELY BEFORE ATTEMPTING ANY SERVICE TO THE UNIT.
2. NEVER OPERATE THE UNIT WITH THE FEED THROAT FLAPS REMOVED OR IN POOR CONDITION.
3. NEVER OPERATE THE UNIT WITH THE GUARDS REMOVED.
4. DO NOT ATTEMPT TO OVER-RIDE SAFETY SWITCHES OR OVERLOADS.
5. NEVER ATTEMPT TO START THE GRANULATORS WITH MATERIAL IN THE CUTTING CHAMBER.
6. ALWAYS ALLOW THE UNIT TO "CLEAN OUT" BEFORE SHUTTING IT DOWN; AVOID FEEDING MATERIAL TO IT WHEN IT IS NOT OPERATING.
7. NEVER REACH INSIDE THE HOPPER WHEN FEEDING MATERIAL INTO THE MACHINE.
8. PREVENT ALL METAL AND OTHER FOREIGN MATERIAL FROM ENTERING THE HOPPER. THIS GRANULATOR IS INTENDED TO GRIND PLASTIC MATERIALS ONLY!



# SPECIFICATIONS

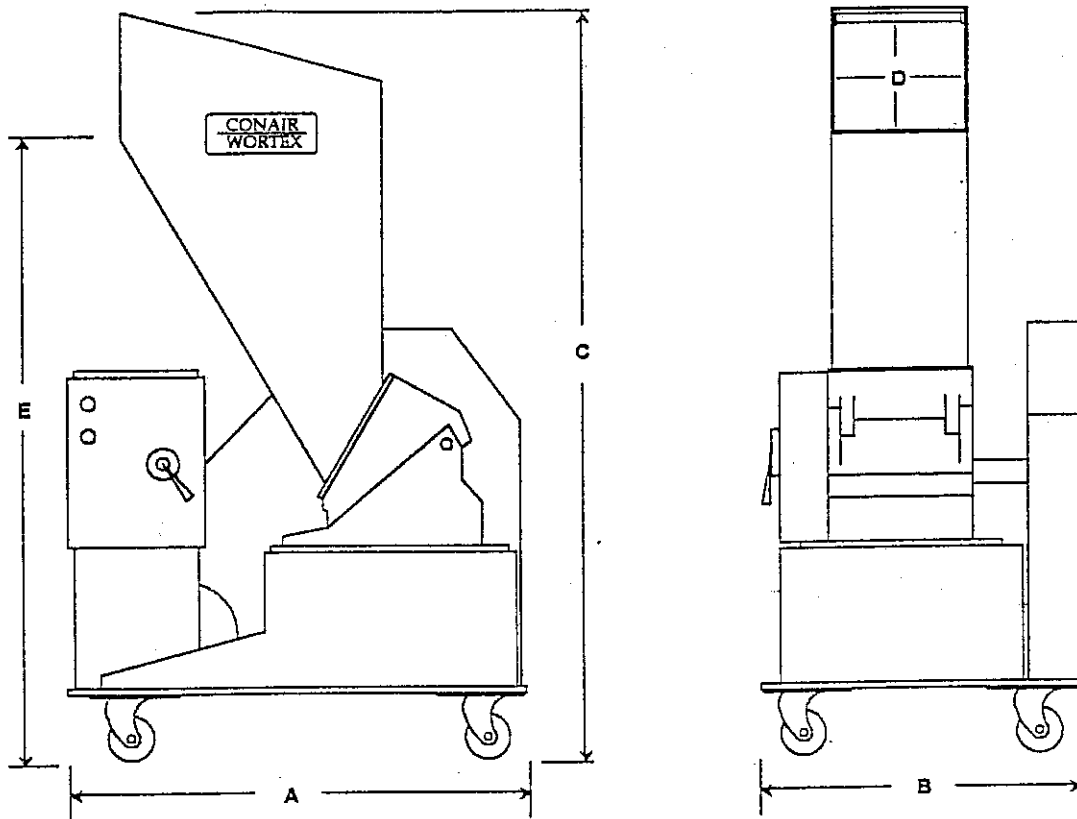


figure 3

MODEL	BPR 810	BP1012
A - Length	34.5"	34.5"
B - Width	24"	24"
C - Height	61"	64"
D - Hopper	8"hx10"w	10"hx12"w
E - Feed inlet height	52"	53"
Cutting Chamber Dimensions	8"hx10"w	10"hx12"w
Cutting Circle Diameter	10"	12"
Motor HP	5	10
Rotor RPM	376	332
Max. Throughput*	200 lbs/hr	400 lbs/hr
Noise Level*	89 dba	89 dba
Weight	710 lbs	795 lbs

Standard BP Series granulators are equipped with  $5/16"$ , 180° reversible screens. Other sizes are available.

- \* Measurement made using 1 1/2" OD x 6" long, Sched. 40 PVC pipe fed at maximum safe rate, with a  $5/16"$  screen. Actual throughputs and noise levels may vary. Contact Conair Wortex to test your specific application.

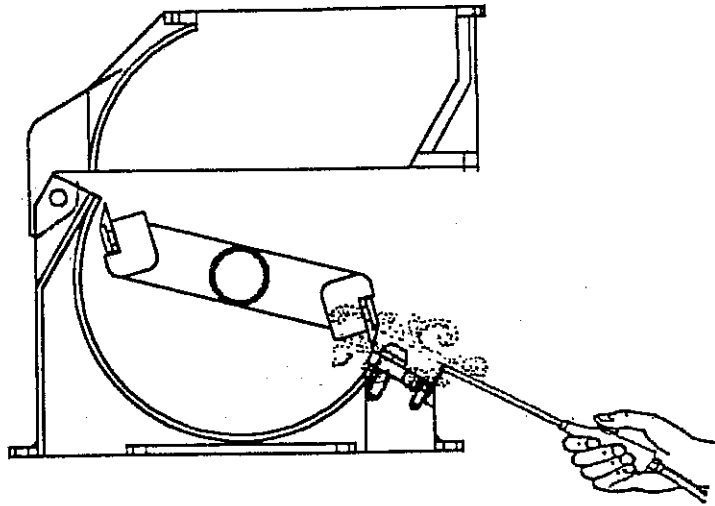
## PRE-INSTALLATION CHECKOUT

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1. Insure the proper electrical voltage supply is provided.
2. **With power off and power supply Locked Out**, open machine completely - Hopper and Cutting Chamber. Visually inspect for any foreign objects.
3. Check the rotor and bed knife bolts for proper torque. Check the knife gap for a proper clearance of .004"-.006".
4. Close the machine completely.

**NOTE: When opening the screen cradle for whatever reason, you must clean it thoroughly before closing... The screen cradle must close firmly to the cutting chamber.**

**Failure to clean the screen cradle could damage it.**



*figure 4*

5. Remove any foreign objects on and around the unit.
6. With power on, polarize the motor for proper rotation of rotor.

**NOTE: Rotor shaft may be viewed by looking at the motor shaft and following the rotation arrow sticker affixed to the motor. Contact the Conair Service Department if you have any questions at 1-800-999-5677.**

## PRE-INSTALLATION CHECKOUT

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7. Upon completion of the electrical power installation, verify the direction of the rotor using the arrow label on the motor as a guide. The direction can be changed by switching any two fused wire leads at the disconnect switch.
8. With the granulator running, release the safety interlock switch and verify that it is working properly. The granulator should stop. If the granulator does not stop under this condition call the Conair service department.

**NOTES: Make all power connections in compliance with local electrical codes and be sure the unit is properly grounded. The electrical supply should be sized for the equipment. Remember to take into account blower assembly motors when sizing.**

**If you have your own method of regrind removal, the rate of material throughput should never exceed the rate of removal, or jam-ups within the granulator will occur.**

# OPERATION GUIDELINES

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1. Do not operate with foreign articles around the granulator.
2. Do not attempt to bypass safety interlocks.
3. Do not throw purgings or large lumps into the unit.
4. Only feed the unit with the proper *volume* that the granulator is sized for and is capable of granulating.
5. If the machine jams, disconnect and lock-out electric power supply. Open the hopper assembly and remove the parts.

**NOTE: When removing the screen for whatever reason, you must clean thoroughly before installing. Failure to clean the screen could damage it.**

6. Keep the knives sharp at all times
7. Grease the rotor shaft bearings every three months or as required. Don't over grease. This could result in damage to the bearing seals.
8. Allow the machine to finish grinding before switching off. Failure to do this could result in the machine not restarting.
9. Never allow the bin to overflow. This will cause excessive wear on moving parts and shorten the life of your screens and moving parts. We recommend a high level proximity switch to turn off granulation if overflow is a problem.
10. If granulating engineered materials, rotate the screen once a month to extend screen life. The screen will show washout on the holes on one side if this is not done.
11. To start the granulator, move the disconnect switch to the on position. Material removal equipment should be started at this time.
12. Press the START button. If there is any abnormality in the sound or operation of the unit, press the STOP button and refer to the Troubleshooting section.
13. With normal operation, material may now be fed carefully into the feed hopper.

# MAINTENANCE

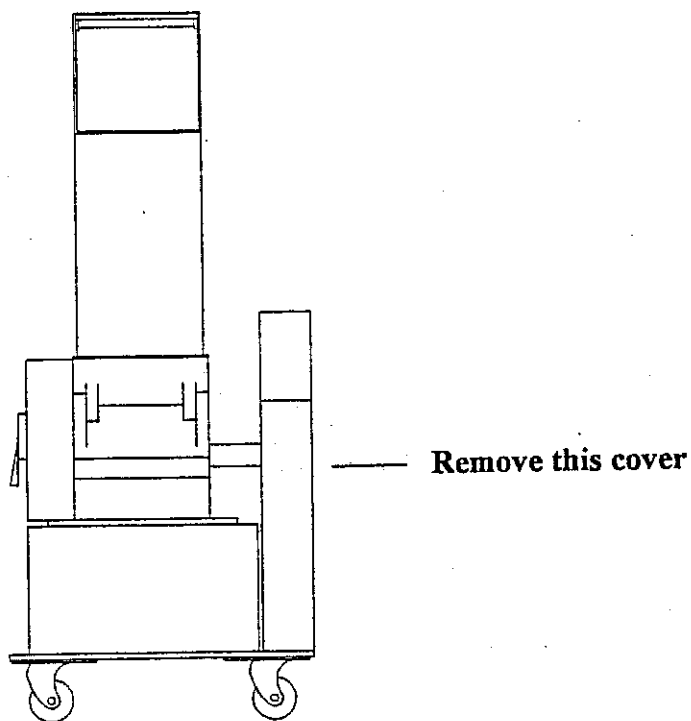
## WARNING

**LOCKOUT AND TAG OUT THE MAIN ELECTRICAL POWER SUPPLY TO THE GRANULATOR BEFORE PERFORMING ANY MAINTENANCE.**

### DRIVE BELT TENSION

**NOTE:** After the granulator has been installed for 2 weeks, tighten belts to proper tension.

1. Verify that the power is OFF and locked out.
2. Remove the side cover from the granulator.



*figure 5*

3. If the tension of the belt span is set properly, firm thumb pressure can depress the belts no more than 1/2" at the center.
4. Loosen the nuts holding the drive motor to its adjustable base.

# MAINTENANCE

5. Turn the adjusting bolt mounted on the top of the mount counter-clockwise to increase belt tension and clockwise to decrease belt tension.
6. Once proper belt tension has been achieved, tighten the motor mounting nuts. Check the pulley alignment or make sure the pulleys are in line. Misalignment may cause excessive belt wear.
7. Install the side cover and return the unit to use.

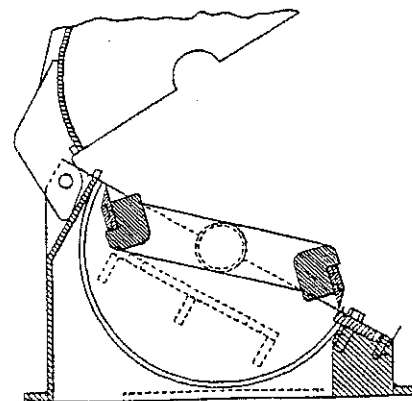
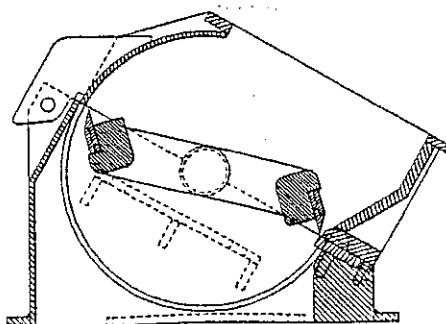
**NOTES: NEVER USE BELT DRESSING.  
CHECK THE BELTS PERIODICALLY  
FOR WEAR AND CLEANLINESS.  
ALWAYS REPLACE THE BELTS AS A SET.**

## ACCESSING THE CUTTING CHAMBER

### WARNING

**USE EXTREME CAUTION WHEN WORKING WITH THE KNIVES. THE KNIVES ARE SHARP. LOCKOUT AND TAG OUT THE MAIN ELECTRICAL SUPPLY TO THE GRANULATOR BEFORE PERFORMING ANY MAINTENANCE.**

1. Both the rotor knives and the bed knife are accessible when the hopper is open. To open the hopper, first verify that the power is OFF and locked out.
2. Loosen the upper chamber hold-down bolts and the hopper safety switch knob. Removal of the bolts will allow the granulator hopper to be raised. The hood may be pivoted into the open position for access to the cutting chamber and screen.



# MAINTENANCE

## RESETTING THE CUTTING CLEARANCES

1. See the section on "Accessing the Cutting Chamber", page 10.
2. Loosen the bed knife bolts and retract the bed knife adjusting screws.
3. Slowly move the bed knife in until it barely touches one of the rotor blades. Rotate the rotor until the opposing blade is next to the bed knife and determine which rotor blade is closest to the bed knife. This blade will be used to adjust the clearance between the bed knife and the rotor blades.
4. Moving the high rotor knife backwards past the bed knife (to avoid cutting the feeler gauge), establish a .004" to .006" clearance.

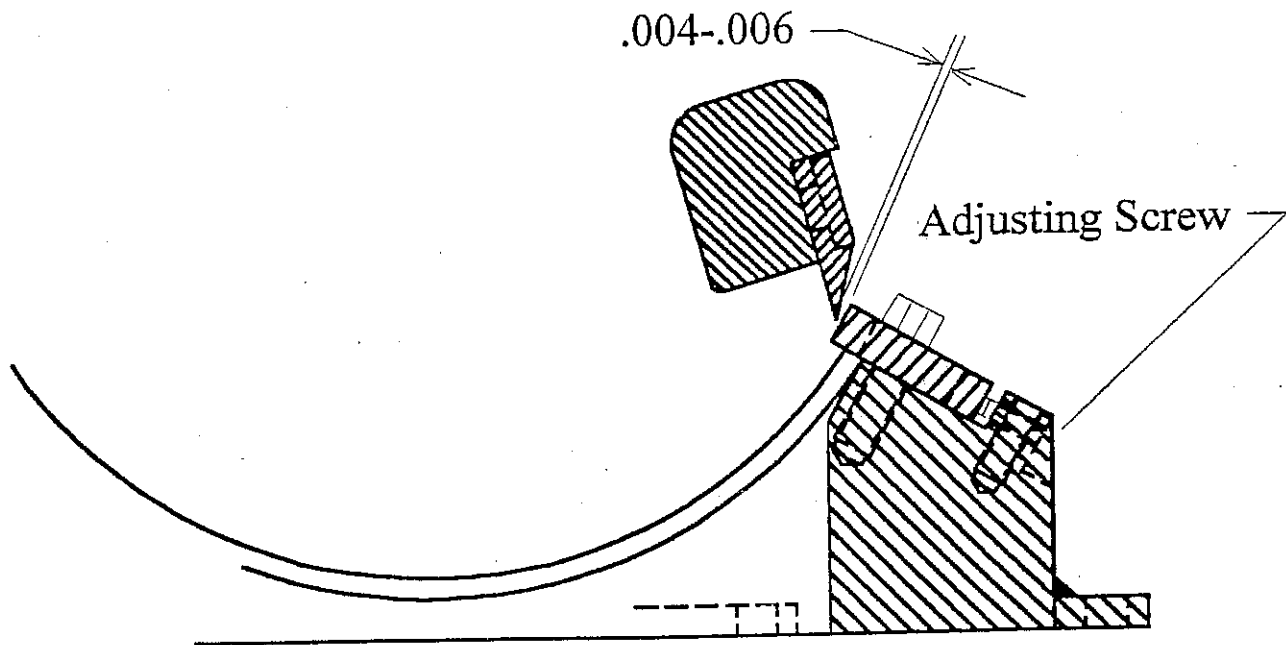


figure 7

5. Tighten the bed knife bolts, adjustment screws and jam nuts.
6. Torque the bed knife bolts to 90 ft/lbs.
7. Make sure you recheck the clearance adjustment after torquing.
8. Before lowering the hopper, clean all contact surfaces thoroughly to allow firm closing.

# MAINTENANCE

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## ROTOR KNIFE REPLACEMENT

1. Read the section on "Accessing the Cutting Chamber", page 10.
2. Remove the bolts holding the rotor blade to the rotor.
3. Remove the rotor blade.
4. Carefully and thoroughly clean the rotor knife seat and bolt holes.
5. Place the knife on the rotor seat and install clean dry bolts. Make sure the knife is fully seated .
6. Torque the knife mounting bolts to 120 ft/lbs and then check the clearance between the rotor knife seat and the knife to verify that the blade is fully seated.
7. The rotor can be turned 180° to replace the other blade using the same procedure.
8. After replacement of the blades the cutting clearance must be set. See "Resetting the Cutting Clearances", page 11.

## BED KNIFE REPLACEMENT

1. Read the section on "Accessing the Cutting Chamber", page 10.
2. Thoroughly clean the cutting chamber of all material.
3. Remove the bolts holding down the bed knife.
4. Loosen the adjusting bolts and unscrew them to the fully retracted position.
5. Remove the knife and thoroughly clean the bed knife seat.
6. Replace the knife and reset the clearance between the rotor blades and the bed knife; see "Resetting the Cutting Clearances".
7. After resetting the clearances, torque the mounting bolts to 90 ft/lbs.



# MAINTENANCE

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## SCREEN REMOVAL

1. Read the section "Accessing the Cutting Chamber", page 10.
2. Rotate the screen out of the granulator from the back of the cutting chamber on the hopper hinge side.
3. Thoroughly clean the screen tracks and screen.
4. The screen is reversible to extend its life.
5. Rotate the screen back into the cutting chamber.

# TROUBLESHOOTING

DIFFICULTY	PROBABLE CAUSE	CORRECTIVE ACTION
1. Grinder will not start.	<p>A. Power is not connected.</p> <p>B. Wrong supply voltage.</p> <p>C. Hopper not fully closed - limit switch not engaged.</p> <p>D. Overload tripped / fuse blown.</p>	<p>Disconnect switch must be in ON position. Confirm voltage at your power source.</p> <p>Check serial number tag for proper voltage.</p> <p>Check for obstructions in the cutting chamber. Check limit switch.</p> <p>Examine reason for overload and reset or replace fuses.</p>
2. Rotor will not turn.	<p>A. Unit stopped too soon at previous shutdown - should allow to clean out before stopping.</p>	<p>Open granulator - remove pieces that block knife motion.</p>
3. Clicking sound when empty.	<p>A. Knives not adjusted properly.</p>	<p>Readjust the knives.</p>
4. Grinder jams easily.	<p>A. Knives are dull.</p> <p>B. Belts are slipping.</p>	<p>Sharpen or replace knives.</p> <p>Adjust belt tension.</p>
5. Excessive fines or poor cut.	<p>A. Knives are dull.</p> <p>B. Improper knife setting.</p>	<p>Sharpen or replace knives.</p> <p>Readjust knife clearance.</p>

# TROUBLESHOOTING

DIFFICULTY	PROBABLE CAUSE	CORRECTIVE ACTION
6. Slivers or longs in the granulator.	A. Screen not installed properly.  B. Holes too big.	Reset screen - confirm fit.  Replace screen with proper hole diameter.

# PARTS LIST

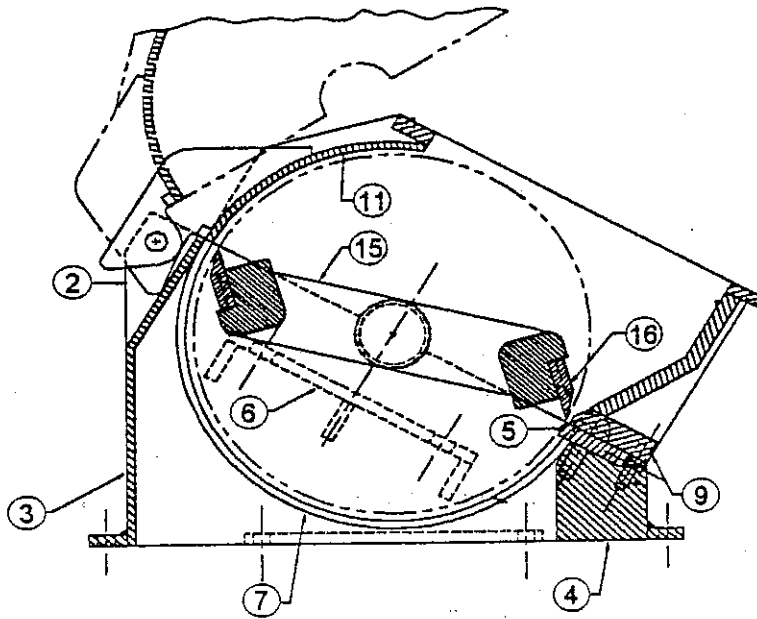


figure 8

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	CRADLE END PLATE/LEFT SIDE	PLT-01101
2	1	CRADLE END PLATE/RIGHT SIDE	PLT-01102
3	1	DEFLECTOR PLATE	PLT-01103
4	1	BED KNIFE SUPPORT	SUP-00056
5	1	BED KNIFE	KNF-00009
6	2	BEARING MOUNTING BRACKET	BRK-00748
7	1	STANDARD SCREEN W/31 HOLES	SCN-00134
9	1	BED KNIFE COVER	COV-00139
11	1	REAR DEFLECTOR PLATE	PLT-01106
15	1	ROTOR SHAFT	SHF-00270
16	2	ROTOR KNIFE	KNF-00025

# RECOMMENDED SPARE PARTS LIST

## BPR810

PART NUMBER	DESCRIPTION	QTY.
81001201	STATIONARY BLADE	1
81001301	ROTOR BLADE	2
81002601	SCREEN 1/8"	1
81002602	SCREEN 3/16"	1
81002603	SCREEN 1/4"	1
81002604	SCREEN 5/16" (standard)	1
81002605	SCREEN 3/8"	1
81002606	SCREEN 1/2"	1
81002607	SCREEN 1"	1
66840	V-BELT	2
66058	MICRO SWITCH	1

## BP1012

PART NUMBER	DESCRIPTION	QTY.
81001202	STATIONARY BLADE	1
81001302	ROTOR BLADE	2
101200701	SCREEN 1/8"	1
101200702	SCREEN 3/16"	1
101200703	SCREEN 1/4"	1
101200704	SCREEN 5/16" (standard)	1
101200705	SCREEN 3/8"	1
101200706	SCREEN 1/2"	1
101200707	SCREEN 1"	1
BET-00031	V-BELT	2
SWT-00396	MICRO SWITCH	1
BRG-003939	PILLOW BLOCK BEARING	2
SCR-00521	SCREW, USE WITH ROTOR BLADE	8