

Binks Model 201-510 ROVING CUTTER



🋦 WARNING

Extreme caution needed when using this product. Cutters have sharp blades which are rotating at high speed. Never operate this product with the safety guard removed.

The 201-510 Roving Cutter is designed to cut glass roving into short lengths (1/4" to 1"), and dispense them into the resin fan. When properly adjusted, the glass/resin mixture will need a minimum amount of rolling.

The air supply hose must have a minimum 5/16" ID. Lower air pressures or a smaller diameter hose could result in poor operation.

Max. Air Consumption: 27cfm (47 m³/h) Max. Air Inlet Pressure: 80 psi (5.52 bar)

201-510 ROVING CUTTER PACKAGE CONTENTS			
207-10501 SQUARE CHUTE			
207-12194 ANGLED CHUTE			
207-10903	SPARE PARTS KIT		



In this part sheet, the words WARNING, CAUTION and NOTE are used to emphasize important safety information as follows:

WARNING

Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

Hazards or unsafe practices which could result in minor personal injury, product or property damage.

NOTE

Important installation, operation or maintenance information.

A WARNING





READ THE MANUAL

Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.

WEAR SAFETY GLASSES

Failure to wear safety glasses with side shields could result in serious eye injury or blindness.



DE-ENERGIZE, DEPRESSURIZE, DISCONNECT AND LOCK OUT ALL POWER SOURCES DURING MAINTENANCE

Failure to De-energize, disconnect and lock out all power supplies before performing equipment maintenance could cause serious injury or death.

OPERATOR TRAINING

All personnel must be trained before operating finishing equipment.



EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.



KEEP EQUIPMENT GUARDS IN PLACE Do not operate the equipment if the safety devices have been removed.



HIGH PRESSURE CONSIDERATION

High pressure can cause serious injury. Relieve all pressure before servicing. Spray from the spray gun, hose leaks, or ruptured components can inject fluid into your body and cause extremely serious injury.



NOISE HAZARD

You may be injured by loud noise. Hearing protection may be required when using this equipment.

PLURAL COMPONENT MATERIALS HAZARD

Because of the vast number of chemicals that could

be used and their varying chemical reactions, the

buyer and user of this equipment must determine all facts relating to the materials used, including any of the potential hazards involved.



FIRE AND EXPLOSION HAZARD

open flame or sparks can cause hazardous conditions and result in fire or explosion and serious injury.



PINCH POINT HAZARD

Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.



KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY



PRESSURE RELIEF PROCEDURE Always follow the pressure relief procedure in the equipment instruction manual.



PROP 65 WARNING

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.

FOR FURTHER SAFETY INFORMATION REGARDING BINKS AND DEVILBISS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).

MODEL 201-510 CUTTER ASSEMBLY



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.	ITEM NO.	PART NO.	DESCRIPTION	ç
1	207-11403	BACK PLATE	1	14	207-11182	CHOPPER GUARD ASSEMBLY	
2	237-39	SOCKET HEAD SCREW	1	15	237-175	REARING	
4	207-11192	ECCENTRIC NUT	2	17	207-11196-1	ANVIL SLEEVE	
5	207-12393	AIR MOTOR ASSEMBLY	1	18	207-11195	FEEDER BAR ASSEMBLY	
6	207-11198-1	MANIFOLD ASSEMBLY	1	21	107-1670	BALL VALVE	
7	207-11205	MODIFIED SCREW	1	22	207-11415	MOUNTING BRACKET KIT	
10	207-11193	SPACER	2	23	237-572	ELBOW	
11	207-11185	CUTTING HEAD ASSEMBLY	1	24	237-573	AIR HOSE (NOT SHOWN)	
12	207-11189	CUTTING HEAD AXLE	1				
13A	207-10501	SQUARE CHOPPER CHUTE	1				
13B	207-12194	ANGLED CHOPPER CHUTE (NOT SHOWN)	1	REPAI	R KITS		

106-1265	AIR MOTOR REPAIR KIT FOR ITEM 5
207-10903	SPARE PARTS KIT

QTY.

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1



Binks MODEL 201-510 ROVING CUTTER

OPERATION:

To introduce roving to the cutter, double over one end of roving and insert it through one of the three holes in the feed bar (18) on the top of the cutter assembly. The air motor control knob, on the front of the manifold (6), should be opened three or four turns, and the blower control knob, on the rear should be opened a 1/4 turn. Pull the trigger and the glass will be dispensed into the resin stream. By opening or closing the blower control knob, the glass pattern will vary in width. By opening the motor control knob, glass content will be increased. Close this knob and glass content will be decreased. Adjust both motor control and blower control to produce the desired output and pattern. The resin fan should be approximately 3" wider than the glass pattern. This allows the fan pattern to pre-wet the part and post wet the glass.

ADJUSTMENTS:

Cutting head (11): It should have sufficient tension against the anvil sleeve (17) to cut properly. Excessive tension will overload the air motor (5) and create starting problems. Insufficient tension will not allow complete cutting of the roving. The eccentric nuts (4) can be used to adjust the tension correctly.

Idler bearing (16): This should be adjusted to have a slight contact with the anvil sleeve (17). Excessive contact will create starting problems. Insufficient contact will not allow the roving to feed correctly. The eccentric nut (4) on the end of idler bearing is used to adjust the idler bearing to the correct tension.

Air motor oiling (5): This is accomplished by removing the motor control knob from the manifold assembly (6), and inserting 2 to 3 drops of light weight machine oil (use Binks 207-11155-1). Replace the control knob and the cutter guard, and run for a few seconds, wipe off any excess oil. (Or oil may be added to an in-line oiler on the air supply hose.)

NOTE

Lubrication is very important and the motor should be oiled after every 2-4 hours of continuous use.

Cutter alignment: The roving should enter the resin fan as soon as possible without excessive fall out. Simply push the cutter forward or pull back to achieve this. To adjust the cutter angle from side to side, simply turn the knob (22g) on the mounting bracket (22) in the direction desired.

DISSASSEMBLY:

- 1.Start by removing the cutter guard assembly (14) and chute (13).
- 2.To remove the air motor assembly(5) and manifold assembly (6) first remove the outer retaining ring(5b) and the anvil sleeve (17) from the air motor assembly.
- 3. Then loosen the Allen head cap screw (2), releasing the air motor assembly and the manifold assembly from the back plate (1).

ACAUTION

DO NOT USE A HAMMER TO FORCE THE AIR MOTOR OUT.

- 4. If it is stuck, you may need to use slight pressure from a screwdriver between the air motor and back plate to free it.
- 5. To remove the manifold assembly (6), remove the air hose (25), valve and elbow (21, 23), and the modified head screw (7) from within the manifold. The manifold assembly will then drop free of the air motor, and expose the three o-rings (6f).
- Inspect the muffler (6a) and the blower tube (6c) for any wear. Replace if necessary. Be sure to insert so that the blower holes are pointing in the right direction.
- To remove the control knobs from the manifold assembly, remove the thumbscrew (6k). Then use a screwdriver to remove the packing nut (6i) and the o-rings (6g, 6h). Replace the o-rings if necessary. Repeat for other side.

- 8. For disassembling the air motor assembly (5), begin by removing the two pins (5d) holding the tire shaft (5c) to the rotor. Next pull the tire off the shaft. Refer to Part Sheet 77-2883 for further details.
- 9. Check the bearings (5e) for any wear, replace if necessary.
- 10. To remove the cutting head assembly (11) from the back plate, hold the eccentric nut (4) and unscrew the cutting head bolt (12). To remove the cutting blades (11f), use a small screwdriver to pry out the blade spacer (11e), and the retaining spring (11d). The old blade will fall free of the slot when this is done.
- 11. To remove the cutter bearing (16) from the back plate, hold the eccentric nut (4) and unscrew the hex head screw (15).

RE-ASSEMBLY:

Manifold Assembly:

- 1. Lubricate the o-rings (6g, 6h) with petroleum jelly and insert into the manifold body (6e).
- 2. Next thread the packing nut (6i) into the manifold body.
- 3. Then thread the lock nut (6j) onto the thumbscrew (6k) and insert into the manifold body.
- 4. Repeat steps 1-3 for the other side of the manifold.
- 5. Now thread the jam nut (6d) onto the blower tube (6c). And then thread the blower tube into the manifold body. Be sure to note the position of the blower tube holes when inserting into the manifold body.
- 6. Finally thread the muffler (6a) into the muffler adapter (6b) and insert them into the manifold body.

Binks MODEL 201-510 ROVING CUTTER



A WARNING USE CAUTION TO PREVENT ACCIDENTAL CUTS AS THESE BLADES ARE SHARP.

Cutting Head Assembly:

The cutter comes from the factory set to cut 1" lengths, by using four evenly spaced blades, inserted in the cutting head (11c). You will note that there are slots every 1/2 inch. By inserting or removing the cutting blades, you can vary the length of cut for special applications. When reinserting the new blades, be sure that they are on the front side of the slot. (Refer to picture above.)

- 1. Insert the cutting blade (11f), then the cutting blade spacer (11e) into the cutting head (11c). Next add the retaining spring (11d); this is accomplished by using a pair of needle nose pliers.
- 2. Then secure the above items in place by adding the two retaining rings (11a) to the cutting head.

Final Assembly:

- 1. Begin by attaching the cutter bearing (16) and spacer (10) onto the back plate (1) with a hex head screw (15) and an eccentric nut (4).
- 2. Next attach the cutting head assembly (11) and spacer (10) onto the back plate using the cutting head axle (12) and an eccentric nut (4).

- 3. Now you can add the manifold assembly (6) by sliding it into the back plate. Be sure to lubricate the three o-rings (6f) on top of the manifold.
- 4. Connect the tire shaft (5c) to the air motor (5) using the two roll pins (5d). Then attach the air motor assembly (5) by sliding the shaft through the back plate. In doing this make sure to line up the three air passages with those of the manifold assembly and o-rings. Secure the air motor assembly onto the manifold assembly with the modified screw (7). Then secure to the back plate by tightening the socket head screw (2).
- 5. To add the anvil sleeve (17) onto the air motor shaft, you will need to apply pressure, while rotating the cutting head assembly (11) at the same time. This will prevent the blades from damaging the new sleeve. Replace the retaining rings (5b) and run the motor for one minute, to ensure proper break-in of the new sleeve.

DO NOT USE ANY TOOL TO FORCE THE ANVIL SLEEVE ON THE MOTOR TIRE SHAFT. DAMAGE TO THE MOTOR CAN OCCUR.

6. Finally add the guard assembly (14) and the chute (13).

MODEL 207-12393 CHOPPER AIR MOTOR ASSEMBLY

(ITEM NO. 5 IN PARTS LIST ON PAGE 4)



NO.	PART NO.	DESCRIPTION	QT
5a 5b 5c 5d	 237-22 207-10062 237-14	AIR MOTOR E-CLIP TIRE SHAFT ROLL PIN	1

REPAIR KIT FOR 5A 106-1265

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■ Parts are included in 207-10903 Repair Kit.

MODEL 207-11185 1" CUTTING HEAD ASSEMBLY (ITEM NO. 11 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
11a	237-558	RETAINING RING	. 2
11b	237-574	BEARING	. 1
11c	207-11191-1	8 VANE CUTTING HEAD	. 1
11d	207-11186	RETAINING SPRING	. 8
11e	207-11187	CUTTER BLADE SPACER	. 8
11f	207-11188-1	CUTTER BLADE	. 4

■ Parts are included in 207-10903 Repair Kit.

NOTE

Blades (11f) are to be placed in every other slot. This will result in the standard 1-inch cut length. To insure proper balance, insert blades around cutting head (11c) equally.

AVAILABLE CUTTING HEAD ASSEMBLIES

PART NO.	LENGTH OF CUT	CUTTING HEAD PART NO. (ITEM NO. 11C)	NO. OF BLADES	AVAILABILITY
207-11185	1 INCH	207-11191-1	4	STANDARD
207-11185-1	1/2 INCH	207-11191-1	8	SOLD SEPARATELY
207-11185-2	1/4 INCH	207-11191-2	15	SOLD SEPARATELY
207-11185-3	3/8 INCH	207-11191-3	12	SOLD SEPARATELY

MODEL 207-11182 CUTTER GUARD ASSEMBLY (ITEM NO. 14 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

ITE NC	M). PART NO.	DESCRIPTION	QTY.
14a	a 207-10806	CHOPPER GUARD NUT	1
14l	b 237-159	NYLON WASHER	1
14	c 207-11183	CUTTER GUARD	1
14a	d 237-19	RETAINING RING	1

NOTE

A cutter guard insert (207-11184) is also available separately to increase the life of the guard.

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MODEL 207-11415 CUTTER MOUNTING KIT

(ITEM NO. 22 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

PART NO.	DESCRIPTION	QTY.
237-14	ROLL PIN	1
207-11407	CUTTER ADJUSTMENT BRACKET	1
20-263-1	WASHER	2
237-175	HEX HEAD SCREW	1
207-10001	SPRING WASHER	1
237-44	SOCKET HEAD CAP SCREW	1
207-10184	CUTTER ADJUSTING CAM	1
	PART NO. 237-14 207-11407 20-263-1 237-175 207-10001 237-44 207-10184	PART NO. DESCRIPTION 237-14 ROLL PIN

207-10903 REPAIR KIT

(ITEM NO. 20 IN PARTS LIST ON PAGE 4)

PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5c	237-22	RETAINING RING	2
6f	237-550	O-RING	3
69 6h	20-3236 237-112	O-RING	2
11e	207-11187 207-11188	CUTTER BLADE SPACER	8
11f		CUTTER BLADES (BOX OF 100)	1
	237-543	O-RING	2
	207-11155-1	AIR MOTOR OIL 2 OZ	1

MODEL 207-12170 AIR MOTOR ASSEMBLY

FOR REFERENCE ONLY—DISCONTINUED JUNE 2007



PARTS LIST

When ordering, please specify Part No.

NO.	PART NO.	DESCRIPTION	QTY.
5a	207-10062	MOTOR SHAFT TIRE	1
5b	237-14	ROLL PIN	2
5c	237-22	RETAINING RING	2
5d	207-10061	AIR MOTOR SEAL	1
5e	207-10060▲	AIR MOTOR BEARING	2
5f	237-32	SOCKET HEAD CAP SCREW	10
5g	207-10052	FRONT END CAP ASSEMBLY	1
5ĥ	207-10055▲	GASKET	2
5i	207-12172	ROTOR	1
5j	207-10051▲	VANE	8
5k	207-12171	AIR MOTOR BODY	1
51	207-12173	REAR END CAP ASSEMBLY	1
5m	20-5376▲	O-RING	1
5n	207-12188	COVER ASSEMBLY	1
5p	237-839	SOCKET HEAD CAP SCREW	2

■ Parts are included in 207-10903 Repair Kit.

A Parts are included in 207-12189 Air Motor Repair Kit.

207-12189 AIR MOTOR REPAIR KIT

(SOLD SEPARATELY)

ONLY FOR USE WITH THE 207-12170 AIR MOTOR

PARTS LIST

When ordering, please specify Part No.

ITEM NO. PART NO. DESCRIPTION

ITENA

QTY.

207-10061	AIR MOTOR SEAL	1
207-10060	AIR MOTOR BEARING	2
207-10055	GASKET	2
207-10051	VANE	8
20-5376	O-RING	1
	207-10061 207-10060 207-10055 207-10051 20-5376	207-10061 AIR MOTOR SEAL

TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	SOLUTION
Glass wrap up.	Wet glass or oil on anvil sleeve. Material in cutter guard. Blower control knob is shut. Tension adjustments. Dull or worn blades or anvil.	Remove guard and clean out. Open blower control knob. Correct tension adjustment. Replace blades or anvil.
Glass is not cut cleanly.	Dull or nicked blades. Anvil sleeve needs replacing. Tension adjusted incorrectly. Blades installed incorrectly.	Replace blades and anvil sleeve. Check tensions.
Motor will not run, or lack of power.	Rotor not centered. Glass wrap up. Broken vanes. Stuck bearings. Lack of lubrication. Tension adjusted incorrectly. Lack of air.	Re-center rotor. Clean out cutter. Re-lubricate and adjust tensions.
Idler bearing does not turn.	Frozen, or incorrectly adjusted.	Re-adjust tension and lubricate.
Cutting head does not turn.	Frozen, or incorrectly adjusted against back plate.	Re-adjust tension and lubricate.
Deep cuts in anvil sleeve.	Blades are in backwards.	Replace blades correctly.
Bad glass pattern.	Excessive drag. Cutter adjusted incorrectly. Too narrow a resin fan. Static electricity.	Re-adjust tensions, and cutter. Change spray tip angle. Ground the system.



NOTES

WARRANTY This product is covered by Binks' 1 Year Limited Warranty.

Binks Sales and Service: www.binks.com



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Toll Free Fax 888-246-5732

77-2475R-5 Revisions: (P2) Added Prop 65 warning; (P8) Removed Model 207-10807; (P12) Updated contact information.