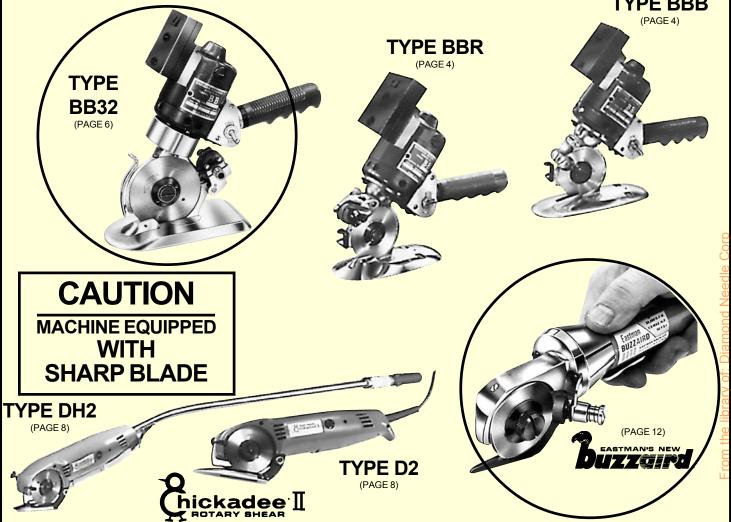
# EASTMAN LIGHT WEIGHT ROUND KNIVES



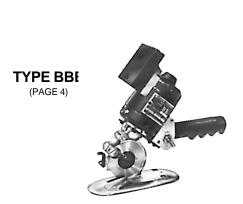
# **INSTRUCTION BOOK AND PARTS LIST**



779 WASHINGTON STREET BUFFALO, NEW YORK 14203 AREA CODE: 716, 856-2200

EASTMAN DEPENDABILITY, EASTMAN QUALITY AND EASTMAN SERVICE ARE YOUR GUARANTEE THAT EASTMAN CUTTERS CUT COSTS. THERE'S AN EASTMAN FOR EVERY CUTTING NEED.

Website: WWW.EastmanCuts.Com



DESCRIPTION

BBB – Equipped with single Sharpener and Shear Plate where continuous honing of Knife is desired. 2 1/2" Hexagon Knife.



**TYPE BB32** (PAGE 6)



BB32 – Has a 3 1/4" Knife for increased capacity and an adjustable Throat Plate.

#### CAUTION

Read instructions carefully before starting motor. Be sure that voltage and current are the same as stamped on nameplate. All Eastman machines shown in this catalogue are equipped with sharp blades and extreme caution should be used when this machine is put into use. When this equipment is not being utilized, the power supply should be disconnected from the equipment.

#### TO OPERATE MACHINE

Turn machine to ON position; if cutter does not start immediately return switch to OFF position. Check the line output and be sure that the unit is plugged in properly and is making full contact. Do not attempt to start this unit while it is in the material to be cut.

#### WARNING

Before performing any of the following procedures, make sure that the attachment plug has been disconnected from power source.

#### KNIFE REPLACEMENT

BBR – BBB – BBTC2 (page 5) – To remove knife, lay machine on side and carefully insert blade of screwdriver into fan of the motor and using Spanner Wrench (95C1-19) inserted into Locknut (4C1-175) or (4C1-182), turn counterclockwise and remove Locknut – replace knife making sure the word "Eastman" faces outward.

BB32 – To remove knife, line up hole in knife and hole in standard, insert pin and use Spanner Wrench (95C1-21). Turn counterclock-wise and remove. Replace knife with Eastman name facing outward.

#### - CAUTION -

Discard used sharp knives with care.

#### THROAT PLATE ADJUSTMENT

BB32 (Page 7) – These machines are equipped with an adjustable Throat Plate (79C5-249) and it is important that the edge of the knife be as close as possible without touching edge of knife and equally straddling the blade. Two (2) Screws located on bottom of base can be loosened and tightened for this adjustment.

#### SHEAR PLATE ADJUSTMENT

BBB (Page 5) – When adjusting the shear plate on the Model BBB, adjusting screw (20C6-26) in a clockwise manner will increase the spring tension on the shear plate; adjusting the screw in a counterclockwise manner will reduce the spring tension.

#### LUBRICATION

BBR - BBB - BBTC2 - BB32

OIL – Fill oil cup (72C4-2) daily and a small drop of SAE 30 nondetergent motor oil at each end of Sharpener Adjusting Bushing.

GREASE – To lubricate, remove Plug (54C4-35) page 5 or page 7 and inject small quantity of Eastman Gear Lubricant Special Formula (242C2) at 90 day intervals for intermittent use. Every six months the (20C12-145) (BBB, BBR, BBTC2) and (20C12-165) (BB32) screws that retain the knife gear should be removed and the knife gear taken out and inspected thoroughly to insure that no thread or lint build-up is in or around the gear area.

#### – CAUTION –

Do not use sewing machine oil or detergent oil. It is entirely too light for cutting machine lubrication. For best results use specially compounded Eastman Oil or at least a good grade SAE 30 motor oil. Do not oil base plate rollers.

Do not overload with grease as machine will run hot at gear assembly. Remove knife and gear and remove excessive grease.

#### MAINTENANCE PROCEDURES

- 1. Keep rollers of the base plate free of lint. Motor should be blown clear of lint and dust weekly using air hose at 90 P.S.I.
- 2. Periodically check terminal pins on the terminal block and the terminal in the attachment plug to insure full contact.
- 3. When replacing the knife on your cutting unit be sure to clean out any lint build up between knife and standard.
- 4. If the cutting unit seems to lag or run hot when not cutting, run machine with knife removed to check for overgreasing or any obstructions.
- 5. When changing knife or cleaning machine check all screws and nuts for tightness.
- 6. Carefully remove spring loaded brushes replace brushes when worn to less than .165 inches (4.2mm) or if springs are less than .350 inches (9.00mm).
- 7. When your machine performance does not appear to be up to par, contact your Eastman Machine authorized dealer.

#### MOTOR BRUSH REPLACEMENT

When replacing brushes (36C1-13) in the motor, carefully remove the (54C4-43) brush caps, remove the (34C1-58) brush with springs and replace brushes accordingly.

#### **KNIFE SHARPENING**

BBR – BBB – BBTC2 - BB32 – Connect power cord and switch motor on. To obtain a fine, keen edge on the blade, press lightly on sharpener lever or button with a constant pressure.

KNIFE SHARPENER REPLACEMENT BBR-BBTC2

#### — CAUTION –

Disconnect from electric power source when servicing.

As the emery wheels wear away and become farther apart, they must be adjusted. Proceed as follows:

- 1. Slightly loosen four (4) slotted screws (300C8-2) holding adjusting bushings in place.
- 2. With fingers, turn adjusting bushings (20C6-23) until emery wheels are as close together as possible without touching and centered over knife. Both wheels should grind at the same time when pressed lightly against knife with a maximum 1/32 inch clearance between wheels. The sharpened edge (bevel) should be no more than 1/16 inch.
- 3. Tighten four (4) screws.

#### TO REPLACE EMERY WHEELS BBB – BBTC2

- 1. Remove left hand cap 2 screws (300C8-2) – lift out emery wheel with bushing.
- 2. Remove screw (20C13-30).
- 3. Coat new emery wheel spindle with oil and re-assemble to arm (620C1-21).
- 4. Repeat above steps for right hand emery wheel.

#### NOTE

Left and Right caps must be replaced in the same manner that they were removed.

#### **BB32**

- 1. Remove cap (35C5-45) and lift out emery wheel and bushing. Then remove screw (304C10-3) from left hand emery wheel and pull out emery wheel (541C1-10). Replace wheels and re-assemble.
- 2. Adjust wheels as outlined for BBR.

#### BBB

Remove sharpener (637C1-23) from machine and disassemble as shown in diagram page 5 – replace emery wheel (541C1-22). Lubricate – re-assemble – re-install.

#### 220 VOLT MACHINES

When using the 220 volt machine on three phase outlets, use adaptor (509C1-54) by simply mounting this adaptor on the (25C5-49) single phase attachment plug. The two live leads of the (615C1-5) three phase attachment plug can be utilized for the power this machine requires.

#### OPTIONS

The BBTC2 long handled 2 1/2" round knife cutter can be equipped with a (62C16-222) bracket that allows for a handle to be mounted in front of the cutting operation to pull this machine through the width of a cut rather than push it.

#### KNIFE GUARD ADJUSTMENT

Knife guards (25C4-144) and (25C4-106) should be regulated in a manner that only allows the material to pass through the material to be cut.

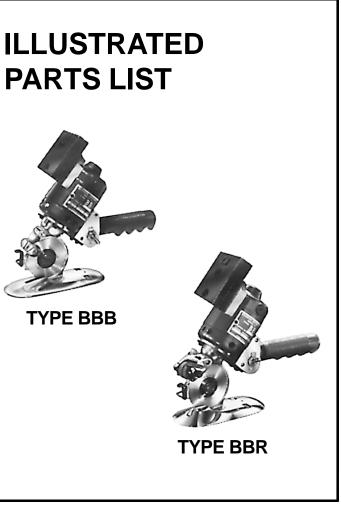
#### REPLACEMENT BLADES

Machine Type	Size	Part N Carbon	Blade Type	
BBR BBTC2	2 1/2"	80C1-114*	80C1-114HS	Round
BBB	2 1/2"	80C1-114 80C1-138*	80C1-114HS —	Round Hex
BB32	3 1/4"	80C1-84*	80C1-84HS	Round
D2 D2H	2 1/4"	_	80C1-147HS* 80C1-149HS	Round Hex
BUZZ	2-1/32"	_	80C1-123HS* 80C1-133HS	Semi Square Octagon

\*Standard Blade

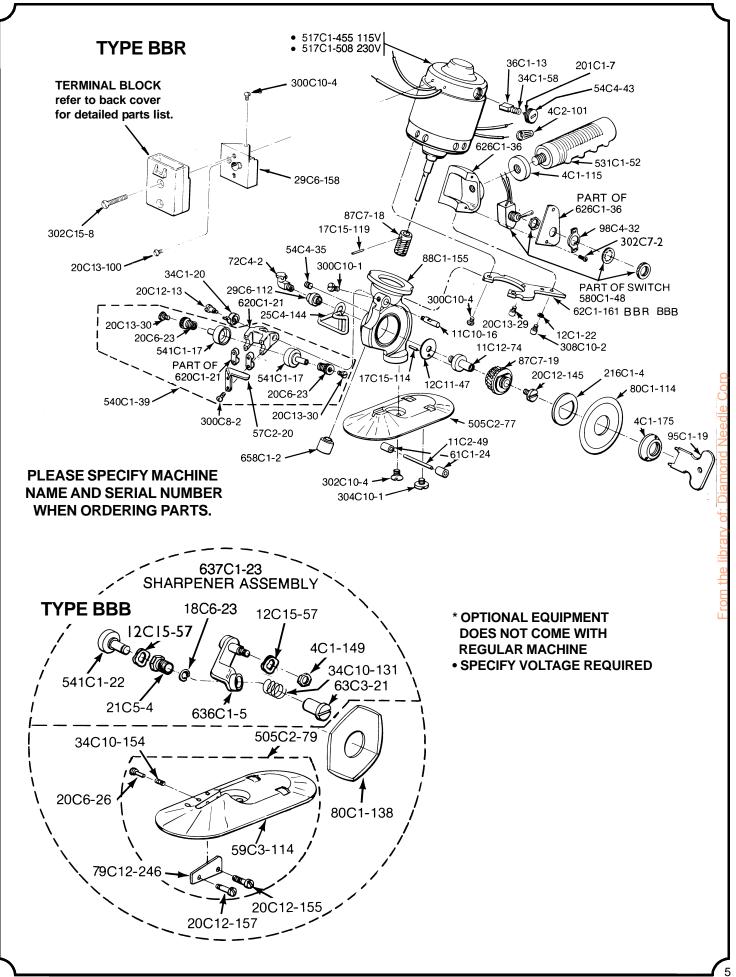
#### PLEASE SPECIFY MACHINE NAME AND SERIAL NUMBER WHEN ORDERING PARTS.

ш	ĸ		
BBB	BBR	PART NO.	DESCRIPTION
0	2		SCREW 6-32 X 3/16 BINDING HD.
2 1	2 0	20013-100	SCREW, 6 X 3/8 ROUND HD. 
1	1		
1	1		OIL CUP ADAPTER
1 0	1 1		TERMINAL BLOCK ADAPTER
2	2	34C1-58	BRUSH SPRING
1	0	34C10-131	SHARPENER SPRING
1 2	0 2	34C10-154	SHEAR PLATE SPRING BRUSH
2	2		MOTOR LEAD WIRE
1	1	51C1-48	TERMINAL BLOCK
1	1		GREASE PLUG
2 0	2 0		BRUSH PLUG SPACER FOR BASE PLATE
0	1		
1	0	59C3-114	PLATE FLAT
1	2		PLATE ROLLER SHELL
1 0	1 0		HANDLE BRACKET
1	ŏ		SHARPENER BUTTON
1	1	72C4-2	OIL CUP
0	0		TUBING FOR INSULATION SHRINKABLE TUBE
0 0	0 0		
ŏ	Õ		BASE PLATE
0	0		FRICTION PLATE
1	0	79C12-246	SHEAR PLATE
0 1	1 0	80C1-114	KNIFE, ROUND 2-1/2 DIA. KNIFE, 6 SIDED 2-1/4 DIA.
1	1	87C7-18	WORM GEAR
1	1	87C7-19	KNIFE GEAR
1	1		STANDARD
0 1	0 1		
0	0		
ŏ	ŏ		
2	2		BRASS EYELET
1 4	1 4		THREAD SEAL SCREW, 4-40 X _ ROUND HD.
4	4	300C8-2	SCREW, 4-40 X _ ROUND HD.
ò	Ö	300C10-3	
2	2	300C10-4	SCREW, 6-32 X 3/8 ROUND HD.
0	0	300C18-1	SCREW, 1/4-20 X 3/4 ROUND HD.
0 1	0 2	300018-2	SCREW, 1/4-20 X 3/8 ROUND HD. SCREW, 6-32 X 5/16 FLAT HD.
ò	0		
0	0	302C12-3	SCREW, 8-32 X 3/8 FLAT HD.
0	0		
2 1	2 1	30207-2	
ò	0		
2	2		
0	1	505C2-77	
1	0		PLATE WITH ROLLERS & SHEAR PLATE
2	2		
1	1	531C1-52	HANDLE
0	1		EMERY WHEEL ARM WITH WHEELS
0	2	541C1-17	EMERY WHEELASSEMBLY
1 1	0 1		EMERY WHEEL ASSEMBLY
0	0	580C1-93	SWITCH MOMENTARY ON/OFF
0	1	620C1-21	EMERY WHEEL ARM
1	1	626C1-36	SWITCH BRACKET WITH COVER
1 1	0 0	636U1-5	
1	1		
1	ò		



#### PLEASE SPECIFY MACHINE NAME AND SERIAL NUMBER WHEN ORDERING PARTS.

BBB BBR		
	PART NO.	DESCRIPTION
1 1	4C1-115	HANDLE LOCKNUT
1 0	4C1-149	SHARPENER STOP NUT
1 1	4C1-175	
0 0	4C1-182	KNIFE LOCKNUT
22	4C2-101	WIRE NUT
1 1		ION FOR TERMINAL BLOCK
1 1	8C13-55	
1 1		PLATE ROLLER SHAFT
0 1	11C10-16	SHARPENER SHAFT
1 1	11C12-74	WORM GEAR SHAFT
22	12C1-22	LOCK WASHER
1 0	12C1-29	
22		SPACING WASHER
1 0		SPRING WASHER
1 1	17C15-114	PIN FOR STANDARD
1 1		PIN FOR WORM
1 0	18C6-23	RETAINING RING
02		VHEEL ADJUSTING SCREW
1 0		PRING ADJUSTING SCREW
01		ARPENING SPRING SCREW
1 1		FOR WORM GEAR SHAFT
1 0	20C12-155	
1 0	20C12-157	
1 1	20C13-29 SCRE	
2 2	20C13-14 SCREW 6 X 1/4 S	ELF TAPPING BINDING HD.



PART NO.	DESCRIPTION
	HANDLE LOCKNUT
401-177	KNIFE LOCKNUT WIRE NUT (2 Reg'd)
11C2-30	FRONT ROLLER SHAFT (2 Reg'd)
11C10-13	
11C12-105	KNIFE GEAR SHAFT WASHER SHAKE PROOF (2 Req'd)
12C1-22	LOCK WASHER (2 Req'd)
12C2-10	FELT WASHER FOR STAND
12C11-74	SPACING WASHER
12C15-29	FLAT WASHER PAPER WASHER
12C15-100	
17C15-40	PIN IN STANDARD
18C6-35	
20C6-11	
20C12-13	THRUST SCREW
20C13-20	
25C4-106	KNIFE GUARD
	MOTOR ADAPTER OIL CUP ADAPTER
2906-150	
34C1-20	SHARPENER SPRING
34C1-58	BRUSH SPRING (2 Reg'd)
36C1-13	BRUSH (2 Req'd) 
54C4-35 54C4-43	BRUSH PLUG (2 Req'd)
55C4-98	
57C2-15	SHARPENER LEVER
61C1-24	PLATE ROLLER SHELL (4 Req'd)
62C1-161	HANDLE BRACKET
79C5-249	THROAT PLATE
90C1-140	BEARING HOUSING REAR BEARING HOUSING FRONT
90C2-133 90C6-40	BALL BEARING, WORMSHAFT
92C1-12	SPINDLE
92C1-21	WRENCH
9804-32	ON/OFF CLIP UNMOUNTED EMERY WHEEL (2 Req'd)
151C1-3	
201C1-7	BRASS FYFL FT (2 Reg'd)
300C10-1	SCREW, 6-32 X 3/16 ROUND HEAD (2 Req'd)
300C10-4	SCREW, 6-32 X 3/8 ROUND HEAD (4 Req'd) SCREW, 6-32 X 3/4 ROUND HEAD (3 Req'd)
300C10-8	SCREW, 6-32 X 11/16 ROUND HEAD (3 Req'd)
301C7-4	SCREW, 4-36 X 5/16 FILLISTER HEAD (4 Reg'd)
301C10-1	SCREW, 6-32 X 1/4 FILLISTER HEAD
302C10-4	SCREW, 6-32 X 5/16 FLAT HEAD (2 Req'd)
302C10-5	SCREŴ, 6-32 X 3/8 FLAT HEAD (3 Req'd) SCREW, 10-32 X 1 FLAT HEAD (2 Req'd)
302C7-2	SCREW, 4-36 X 1/4 FLAT HEAD (2 Reg'd)
304C10-1	SCREW. 6-32 X 1/8 TRUSS HEAD (4 Reg'd)
304C10-3	SCREW, 6-32 X 1/4 TRUSS HEAD (2 Req'd)
505C2-32	SCREW, 6-32 X 1/2 SOCKET HEAD (2 Req'd) FLAT PLATE – ROLLER
511C1-126	STANDARD
	MOTOR 115 VOLT
	MOTOR 230 VOLT
	KNIFE GEAR HANDLE
540C1-36	EMERY WHEEL ARM WITH WHEELS
541C1-10	EMERY WHEEL ASSEMBLY (2 Reg'd)
542C1-99	
	ARMATURE 230 VOLT
620C1-22	FMFRY WHFFI ARM
626C1-36	
653C1-1	WORMSHAFT

# ILLUSTRATED PARTS LIST

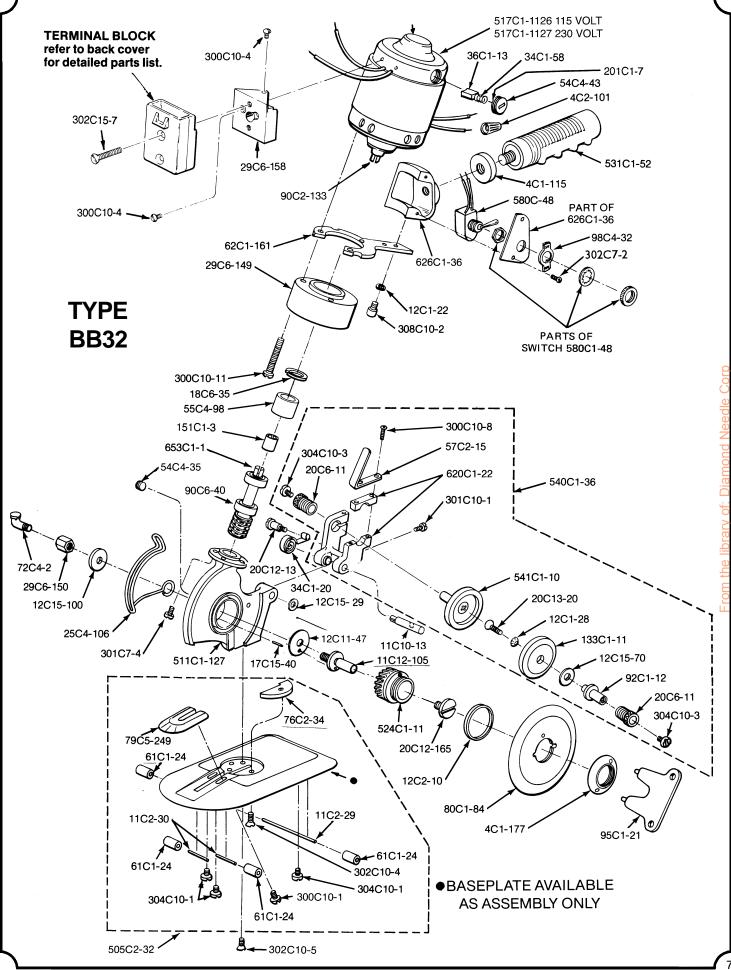


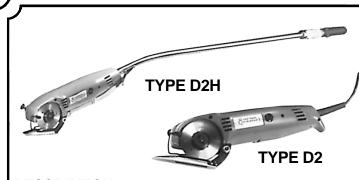
**TYPE BB32** 

PLEASE SPECIFY MACHINE NAME AND SERIAL NUMBER WHEN ORDERING PARTS.

Eastman

779 WASHINGTON STREET BUFFALO, NEW YORK 14203





#### DESCRIPTION

Your new Chickadee D2 or D2H is designed for increase performance and capacity, with a minimum of maintenance and service when not subjected to abnormal use.

#### CAUTION

Read instructions carefully before starting motor. Be sure that voltage and current are the same as stamped on nameplate.

#### TO OPERATE MACHINE

Turn machine to on position; if cutter does not perform properly check line output and be sure the unit it plugged in properly making full contact. Do not attempt to start this unit while it is in material to be cut.

#### WARNING

Before performing any of the following procedures, make sure that the attachment plug has been disconnected from power source.

#### REMOVE AND REPLACE THE KNIFE

Insert a pin thru knife against bottom of machine housing and with a large screwdriver, remove screw (300C12-3) and flange (53C11-112). DISCARD WORN SHARP KNIFE WITH CARE and install new blade with the Eastman facing outward.

To obtain a fine keen edge on the blade, press lightly on sharpener button with a constant pressure.

#### LUBRICATION

Follow this procedure yearly for intermittent use, or every six months for continuous use. Remove knife, remove retainer plate (79C12-276) (2 screws) with gear intact. Then remove screw (20C13-99) emery wheel (541C1-24) and wipe away any grit deposits. Apply a light coat of Eastman Lubricko Grease (242C2-2) to parts and reassemble. Then add small quantity of Eastman Lubricko Grease to gears and shaft. Saturate wick (191C1-37) with good quality SAE 30 non-detergent motor oil when changing blade.

#### DISASSEMBLY

Remove knife. Remove two (2) flat head screws (302C8-2) and gear retaining plate (79C12-276) from housing.

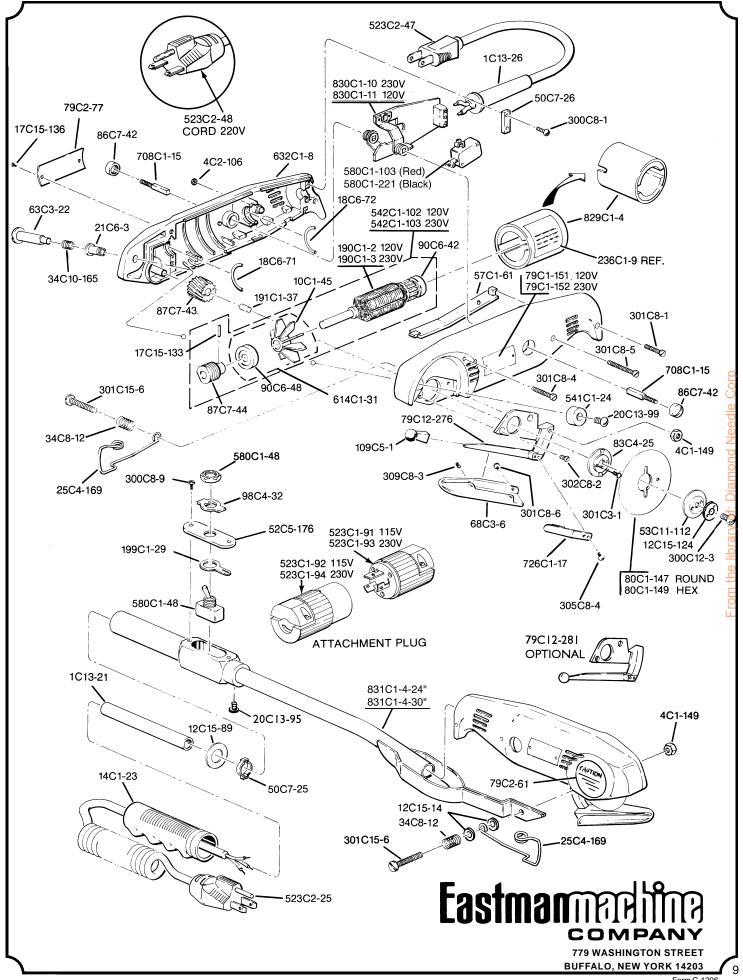
Note: it is not necessary to loosen two fillister head screws (301C3-1) from knife flange.

Remove brush caps and brushes. Completely remove three fillister head screws (308C1-1, 308C1-4, 308C1-5) from housing and lift off left side motor housing, leaving motor parts in right side housing. Clean lint and dirt from motor housing and grease from gear cavity.

## ILLUSTRATED PARTS LIST

PART NO.	DESCRIPTION SLEEVE
1013-21	CORD SLEEVE
	HEX NUT
4C2-106	HEX NUT
10C1-45	FAN
12C15-14	
12C15-89	WASHER WASHER, BLADE RETAINER
1401-124	
17C15-133	ARMATURE PIN
17C15-136	
1806-71	FRONT "O" RING HALE (2 REOLIRED)
18C6-72	
20C13-99	PAN HEAD SCREW
2106-3	
34C8-12	SPRING
34C10-165	SHARPENER SPRING
50C7-25	CORD CLAMP D-2H
	CORD CLAMP D-2
52C5-176	BASE SWITCH
53C11-112	KNIFE COVER FLANGE SWITCH LEVER
6303-22	SHARPENER BUTTON
68C3-6	PRESSURE FOOT
79C1-151	PLATE, NO. 120V
79C1-152	PLATE, NO. 230V
79C2-61	CAUTION PLATE
7902-77	
79012-276 8001-147	
80C1-149	
83C4-25	
86C7-42	
87C7-43	KNIFE GEAR
87C7-44	
9006-42	
9000-40	ALLEN KEY
98C4-32	ON/OFF PLATE
109C5-1	TIP SHEAR PLATE
190C1-2	ARMATURE 120V
190C1-3	ARMATURE 230V
191C1-37	WICKING FELT
19901-29	LUG SCREW, 4-40 X 3/8 ROUND HEAD (2 REQUIRED)
300C8-9	SCREW 4-40 X 3/16 ROUND HEAD
300C12-3	SCREW, 8-32 X 3/8 ROUND HEAD CREW, 2-56 X 1/2 FILLISTER HEAD (2 REQUIRED)
301C3-1 SC	CREW, 2-56 X 1/2 FILLISTER HEAD (2 REQUIRED)
301C8-1	SCREW, 4-40 X 1/2 FILLISTER HEAD
301C8-4	SCREW, 4-40 X 3/4 FILLISTER HEAD SCREW, 4-40 X 1 1/2 FILLISTER HEAD
30108-5	
30100-0	SCREW 10-32 X 1 FILLISTER HEAD
302C8-2	SCREW, 10-32 X 1 FILLISTER HEAD SCREW, 4-40 X 3/4 FLAT HEAD (2 REQUIRED)
305C8-4	SCREW. 4-40 X 1/8 BINDING HEAD (2 REQUIRED)
309C8-3	SCREW, 4-40 X 1/8 SOCKET HEAD ATTACHMENT PLUG 120V MALE
523C1-91	ATTACHMENT PLUG 120V MALE
523C1-92	ATTACHMENT PLUG 120V FEMALE
52301-93	ATTACHMENT PLUG 230V MALE
523C2-25	CORD 120V
523C2-46	CORD 230V FUROPE
523C2-47	CORD ASSEMBLY 120V DOMESTIC
523C2-48	CORD ASSEMBLY 230V DOMESTIC
541C1-24	EMERY WHEELASSEMBLY
54201-102	ARMATURE ASSEMBLY 120V ARMATURE ASSEMBLY 230V
580C1-48	SWITCH, D-2H
580C1-103	
580C1-221	BLACK. SWITCH. D-2
614C1-31	
632C1-8	
70801-15	BRUSH W/SPRING (2 REQUIRED)
831C1-4-24	
831C1-4-30	
829C1-4	MAGNET ASSEMBLY 
830C1-10	CIRCUIT BOARD ASSEMBLY 230V
830C1-11	CIRCUIT BOARD ASSEMBLY 120V

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#### ASSEMBLY

Install circuit board in right motor housing. Place armature of correct voltage into magnet ring (829C1-1). Insert armature and magnet by passing rear end of armature between brush holders on circuit board.

Note that notch in magnet ring must mate with stud in right housing for proper fit. Rotate magnet ring until slot "clicks" into stud.

Fit switch lever into recess at bottom of right housing. Check functioning of switch by squeezing lever when in place. Place left housing over right housing with slight pressure. Replace three screws into left housing. Pack gear cavity 3/4 full of Eastman grease. Replace gear retaining plate. Squeeze one drop of oil into knife screw hole. Replace knife with Eastman facing outward. Insert brushes and brush caps.

Repairs to these machines should be made by a qualified person familiar with safe repairs of electrical devices. Exercise extreme caution when working with, or near the blade as the cutting edge is extremely sharp. Be sure to disconnect machine from power supply and remove knife before continuing with adjustments or repairs.

To sharpen knife, press lightly on sharpener button with constant pressure, while machine is running. Lubricate wick (191C1-37) with Eastman oil when replacing blade or once each month.

#### REPLACE MOTOR BRUSHES

Remove black brush caps (86C7-42) from sides of housing with a large bladed screwdriver. Gently pull on springs to remove brushes. If brushes are stuck, tap machine gently on padded surface to loosen brushes.

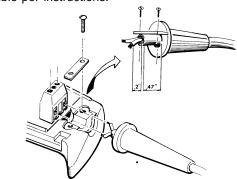
Replace brushes if worn to less than 5/32" (4.2mm) or if spring is less than 11/32" (9.0 mm). Replace brush caps and tighten gently.

#### ADJUSTMENT OF SHEAR PLATE

Shear plate (726C1-17) should contact knife at sharpened edge *only*. Clearance of back of shear plate is .010" (.25mm) and can be checked with feeler gage.

#### REPLACE CORD

Disassemble machine per instructions. Loosen two screws in terminal block and remove two screws (300C8-1) in cord clamp. Gently pull cord from terminal block. Strip outer jacket on new cord to .4" (12mm). Strip insulation on wires to .2" (5mm). Insert wire leads into terminal block and tighten two screws. Replace and secure cord clamp (50C7-26), making sure clamp bears on outer jacket of wire as shown. Reassemble per instructions.



#### FAN AND FRONT BEARING REMOVAL

Measure and record distance of fan and front bearing from rear bearing. Position armature assembly in collar jig, as shown. Lightly heat gear (87C7-44) at pin (17C15-133) to release adhesive.

#### CAUTION -

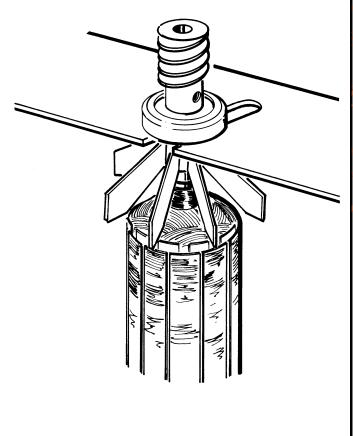
Do not heat entire armature.

Press worm from armature shaft with drift pin. Remove front bearing from armature shaft.

#### CAUTION

Do not allow armature to fall from collar jig.

Remove fan by gently twisting and pulling fan from armature shaft.



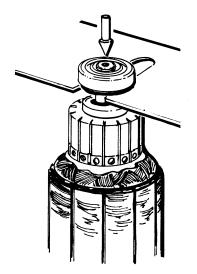
### INSTALLATION OF FAN, FRONT BEARING AND WORM GEAR

Apply adhesive (Loctite 242 recommended) to inside diameter of fan, (10C1-45) bearing (90C6-48) and worm (87C7-44). Use steel tube with 1/4" I.D. to press fan, bearing and worm onto armature shaft. Make sure parts are returned to original position as recorded in FAN AND BEAR-ING REMOVAL, above.

Pin in worm must be aligned with slot in armature shaft for proper assembly.

#### REAR BEARING REMOVAL

Position armature in collar jig as shown. Use steel rod to press armature shaft through bore of bearing. Do not allow armature to fall from jig.



#### INSTALLATION OF REAR BEARING

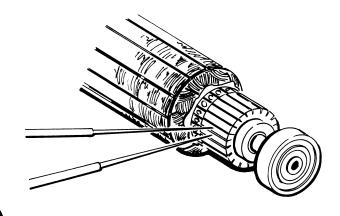
Lubricate armature shaft. Use 1/4" I.D. steel tube to press rear bearing down to shoulder on armature shaft.

Support armature at front end and protect shaft from bending during reassembly.

#### ELECTRICAL TESTS OF ARMATURE

Repeated blown fuses or burned resistor may indicate failed armature.

Use multimeter to check adjacent bar to bar resistance of commutator as shown. Check each bar around entire commutator.



OLTAC	GΕ
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230v 115v RESISTANCE

20 ohms 10 ohms

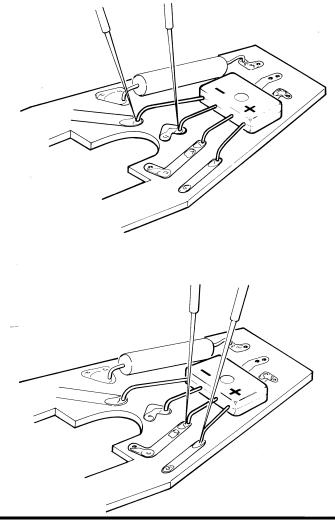
IF READINGS ARE 10% ABOVE OR BELOW STANDARDS, REPLACE ARMATURE.

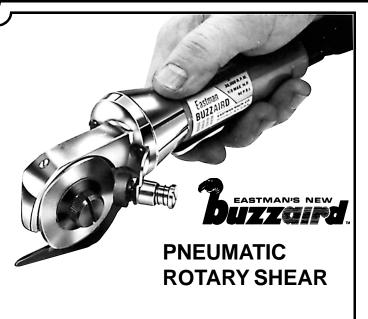
#### ELECTRICAL TESTS OF RECTIFIER

Set multimeter to 1,000 ohm scale. Measure resistance between negative and adjacent lead as shown. Reading should be 5-50 ohms. Reverse multimeter probes. Reading should be 1,000,000 (1 million) ohms minimum.

Repeat above procedure on remaining leads as shown. Readings should be identical to above.

Any readings other than above indicate failed rectifier and circuit board must be replaced.





#### DESCRIPTION

The Buzzaird Rotary Shear has been carefully designed by the Eastman Machine Company to efficiently cut a variety of fabrics and provide many years of trouble free service. This pneumatic cutter is equipped with a heavy duty pneumatic motor and can be used primarily for heavier types of material that cannot be cut with our now world-famous Chickadee Machine. The maximum output is 1/3 horsepower and should run at 90 psi with a 20,000 rpm motor speed. This machine should not be run with less than 60 psi.

#### BALL TIP AND SHEAR PLATE FOOT OPTIONAL\*

A ball tip (109C5-1) for cutting loosely woven materials and shear plate foot (68C3-4) for additional support and cutting accuracy are optional. To attach shear plate foot to shear plate (726C1-5) use allen key (95C5-7) as illustrated.

#### WARNING

Before performing any of the following procedures, make sure the air line has been disengaged.

#### TO LUBRICATE

A few drops of 30 weight, non-detergent machine oil twice a day while operating are all that is required to keep the buzzaird lubricated. The parts illustration (page 13) clearly indicates the three recommended lubrication points. To lubricate gears, remove plug (point C), inject grease once a day. Eastman Gear Lubricant Special Formula (242C2) is recommended. Be sure oil felt (191C1-26) is kept clean and moist with oil.

#### TO REMOVE KNIFE

Remove lock nut (4C1-194) turn counter-clockwise and lift knife from the gear. When replacing knife (80C1-123) be sure the knife is installed so that the Eastman name is in the outward position.

# ILLUSTRATED PARTS LIST

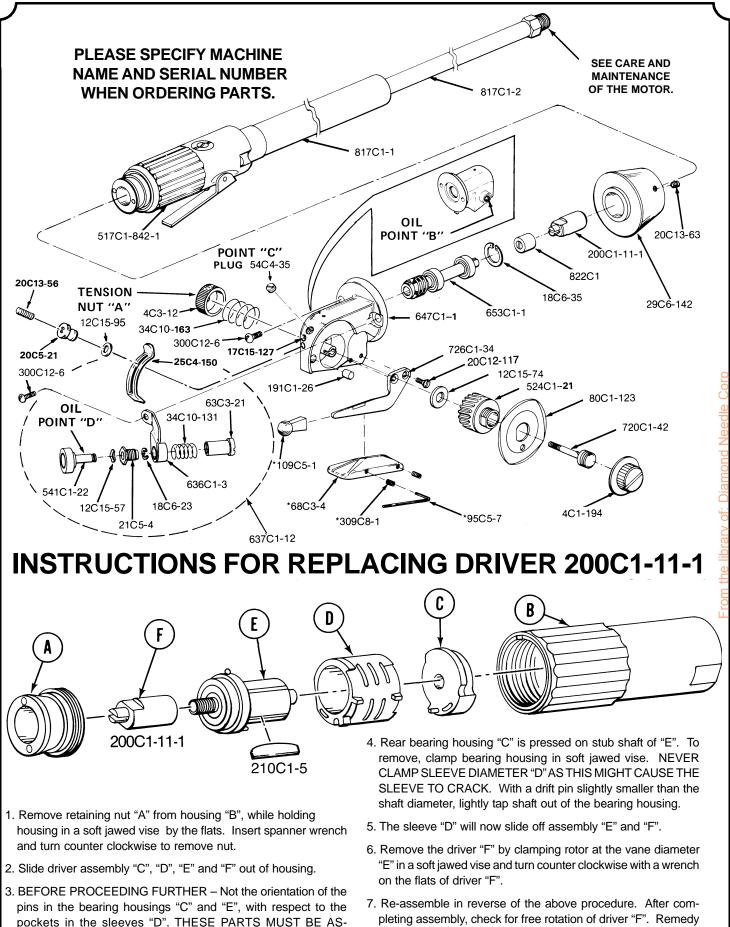
PART NO.	DESCRIPTION
4C1-194	
4C3-12	ADJUSTING NUT
	SPRING WASHER
12015-74	
12C15-95	WASHER FOR KNIFE GUARD
17C15-127	
18C6-23	RETAINING RING
	RETAINING RING
	CLAMP SCREW
2000-21	
	SCREW, 6-32 X 3/4 SOCKET SET
20C13-63	
21C5-4	
25C4-150	
2906-142	MOTOR ADAPTER
	SHARPENER SPRING
24010-131	KNIFE SPRING
54010-105	
5404-35	
*68C3-4	SHEAR FOOT
80C1-123	
*95C5-7	ALLEN KEY
	BALL TIP
	OIL FELT
200001 11 1	DRIVER FOR MOTOR SHAFT
20001-11-1.	
300012-6	SUREW, 8-32 X 1/2 ROUND HEAD (2 REQUIRED)
*309C8-1	SCREW, 4-40 X 1/4 (2 REQUIRED)
	AIR MOTOŔ
	KNIFE GEAR
541C1-22	SHARPENING STONE
636C1-3	SHARPENER BRACKET
	SHARPENER, COMPLETE
	STANDARD HOUSING
65301-1	WORM, COMPLETE
720C1-42	KNIFE ROD, COMPLETE
726C1-34	SHEAR PLATE
817C1-1	
	AIR INTAKE HOSE
	MOTOR COUPLING
<sup>^</sup> These parts	furnished on special order.

#### TO REPLACE SHARPENING STONE

Sharpening stone may be replace as required without disassembling cutting head. Remove knife lock nut (4C1-194) and knife (80C1-123). Remove sharpener button (63C3-21) and sharpener spring (34C10-131) from rear of sharpener assembly. Sharpening stone and bushing assembly can then be removed from front of sharpener bracket (636C1-3). Remove retaining ring (18C6-23) from shaft of sharpening stone (541C1-22) and remove stone. Note: This procedure is reversed when reassembling.

#### CARE AND MAINTENANCE OF THE MOTOR

An air line oiler and filter should be used for the best performance of this pneumatic motor. The motor must be lubricated and free of moisture. If an air line oiler and filter is not available, a few drops of SAE 5 spindle oil should be used several times a day in the air input line.



SEMBLED IN EXACTLY THE SAME WAY.

pleting assembly, check for free rotation of driver "F". Remedy any binding or chatter caused by the rear bearing housing being too tight by inserting a drift pin and tap end of stub shaft on "E" lightly to loosen assembly.

#### **Safety Information**

Throughout this manual, safety information is presented by use of the terms *Warning, Caution,* and *Note.* These terms have the following meanings:

#### WARNING

A warning contains critical information regarding potential safety hazards that can occur during proper use or misuse of the machine. Failure to follow these procedures may result in serious personal injury to the user.

#### CAUTION

A caution contains instructions for the use or maintenance of the machine. Failure to follow these procedures may result in damage to the machine.

#### **GENERAL SAFETY PRECAUTIONS**

#### WARNING

- This machine is equipped with a very sharp and dangerous knife. Keep hands, arms, and hair away from the knife area at all times. When the machine is not in use, keep the knife guard lowered at all times. Safety glasses and appropriate clothing may prevent serious personal injuries.
- Disconnect the power and air supply from the machine when it is not in use or during routine maintenance, including lubrication.
- The purchaser must instruct all operators in the proper use of the machine according to the instructions on the machine and in this manual. This training must include instruction on the potential safety hazards arising from the use or misuse of the machine. In addition to such training, the purchaser should provide written work instructions as necessary to ensure correct use of the machine for specific cutting applications.
- The purchaser must provide appropriate safety measures and equipment as recommended in this manual. Observe all statutory requirements concerning the use of hazardous machinery that apply to your location.

SAFETY AND INDEMNIFICATION

instructions of this manual.

During the life of the machine, the purchaser agrees to provide

to all machine users (including its own employees and independent contractors) all relevant safety information, including

warning labels and instruction manuals. The purchaser also

agrees to maintain the safety features and working condition

of the machine, and to adequately train all users in the safe

use and maintenance of the machine. The purchaser agrees

to defend, protect, indemnify, and hold Eastman Machine Company harmless from and against all claims, losses, expenses, damages, and liabilities to the extent that they have been caused by the purchaser's failure to comply with the terms and

- Do not modify this machine or disable safety features. Unauthorized modification may result in serious personal injuries to the user. Electrical connections to this machine must be made by a qualified electrician familiar with applicable codes and regulations. To prevent electrocution, a ground lead must be connected to terminal "E" on the attachment plug.
- This machine may be equipped with a remote start interface. Misuse of this machine or use of this machine as part of another machine may result in serious personal injuries to the user.
- Safety labels must be kept clean and legible at all times. Call the Eastman Machine factory to order replacement labels.

### NOTES

302C15-8 51C1-62   302C15-8 51C1-62   SHOWN PLEASE SPECIFY   VOLTAGE WHEN ORDERING PARTS   000000000000000000000000000000000000							
667C1-25 51C1-61 667C1-26 667C1-26 47C	WARNING Wiring Instructions Eastman Attachment Plugs U-26						
667C1-27		EASTMAN	EASTMAN	EASTMAN	EASTMAN	EASTMAN	
667C1-28	Ø	10A 380V 3~	10A 220V 3~	10A 220V ~	15A 120V ~	25A 42V ~	
~		L2 N	L2,N	, z	щ Z, Z	m' z	
DECODIDEION	DADTNO						
DESCRIPTION ATTACHMENT PLUG	PART NO.	523C1-99	523C1-100	523C1-101	523C1-102	523C1-103	
CORD SLEEVE U-LOCK SCREW	1C13-27 20C13-103	1	1	1	1 3	1	
SPRING	34C10-170	1	1	1	1	1	
	47C3-19	1	1	1	1	1	
TERMINAL SLEEVE (CURRENT) TERMINAL SLEEVE (CURRENT)	47C3-20 47C3-21	2	3	1	1	1	
CORDCLAMP	50C7-27	1	1	1	1	1	
ATTACHMENT PLUG COVER ATTACHMENT PLUG BODY	82C1-45	1	1	1	1	1	
ATTACHMENT PLUG BODY	82C1-46	—	1	-	—	—	
ATTACHMENT PLUG BODY ATTACHMENT PLUG BODY	82C1-47 82C1-48	_	_	1	1	_	
ATTACHMENT PLUG BODY	82C1-49	_	_	_		1	
	91C4-22	1	1	1	1	1	
THUMB CLIP SCREW #4-40 X 3/8 ROUND HEAD	98C4-37 300C8-1	_	_	2	2	_	
SCREW #4-40 1/2 ROUND HEAD	300C8-2	2	2	<u> </u>	<u> </u>	2	
SCREW #4-40 X 7/8 FLAT HEAD	300C8-8	1	1	1	1	1	
TERMINAL BLOCK	00040 400	508C1-99	508C1-100	508C1-101	508C1-102	508C1-103	
U-LOCK SCREW TERMINAL BLOCK BOTTOM	20C13-103 51C1-61	4	4	3 1	3 1	3 1	
TERMINAL BLOCK TOP		1	1	1	1	1	
SCREW #10-32 X 1 1/8 FLAT HEAD TERMINAL CONTACT W/PIN E	302C15-8 667C1-22	2 1	2 1	2	2 1	2 1	
TERMINAL CONTACT W/PIN L1,N	667C1-23	1	1	1	—	_	
TERMINAL CONTACT W/PIN L2 TERMINAL CONTACT W/PIN L3	667C1-24 667C1-25	1	1 1	_	1	1	
TERMINAL CONTACT W/PIN L3	667C1-26	_		_	1	1	
TERMINAL CONTACT W/PIN L2 TERMINAL CONTACT W/PIN L3	667C1-27 667C1-28	1	—	1	—	—	

Limited Warranty. Eastman warrants to the buyer that the equipment shall be free from defects in materials or workmanship for a period of 180 days commencing on the date of invoice. Any goods or parts claimed by the buyer to be defective must be returned to Eastman, freight charges prepaid, within the 180 day warranty period. If Eastman determines that the goods or parts are defective in materials or workmanship, Eastman's sole obligation under this warranty shall be, at Eastman's sole option, to repair or replace the defective goods or parts or to provide the buyer a credit equal to the portion of the purchase price allocable to the defective goods or parts. This warranty shall not apply if defects are caused by product misuse or neglect, if the machine has been altered or modified by the buyer, or if other than genuine Eastman belts, emery wheels, knives or parts are used in the machine. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitation of Liability. Eastman's liability to the buyer, and the buyer's remedies from Eastman, whether in contract, negligence, tort, under any warranty or otherwise, shall be limited to the remedies provided in the foregoing Limited Warranty. In no event shall Eastman have any responsibility or liability to the buyer for (a) any special, indirect, incidental, or consequential damages, including, but not limited to, loss of use, revenue, or profit, even if Eastman has been advised of the possibility of such damages, or (b) any claim against the buyer by any third party. The price stated for the product sold is a consideration for limiting Eastman's liability.



779 Washington St., Buffalo, N. Y. 14203-1396 U.S.A. • (716) 856-2200 BUF • Fax (716) 856-1140 or (716) 856-2068 Manufacturers of Eastman Cloth cutting and Cloth Spreading Machines