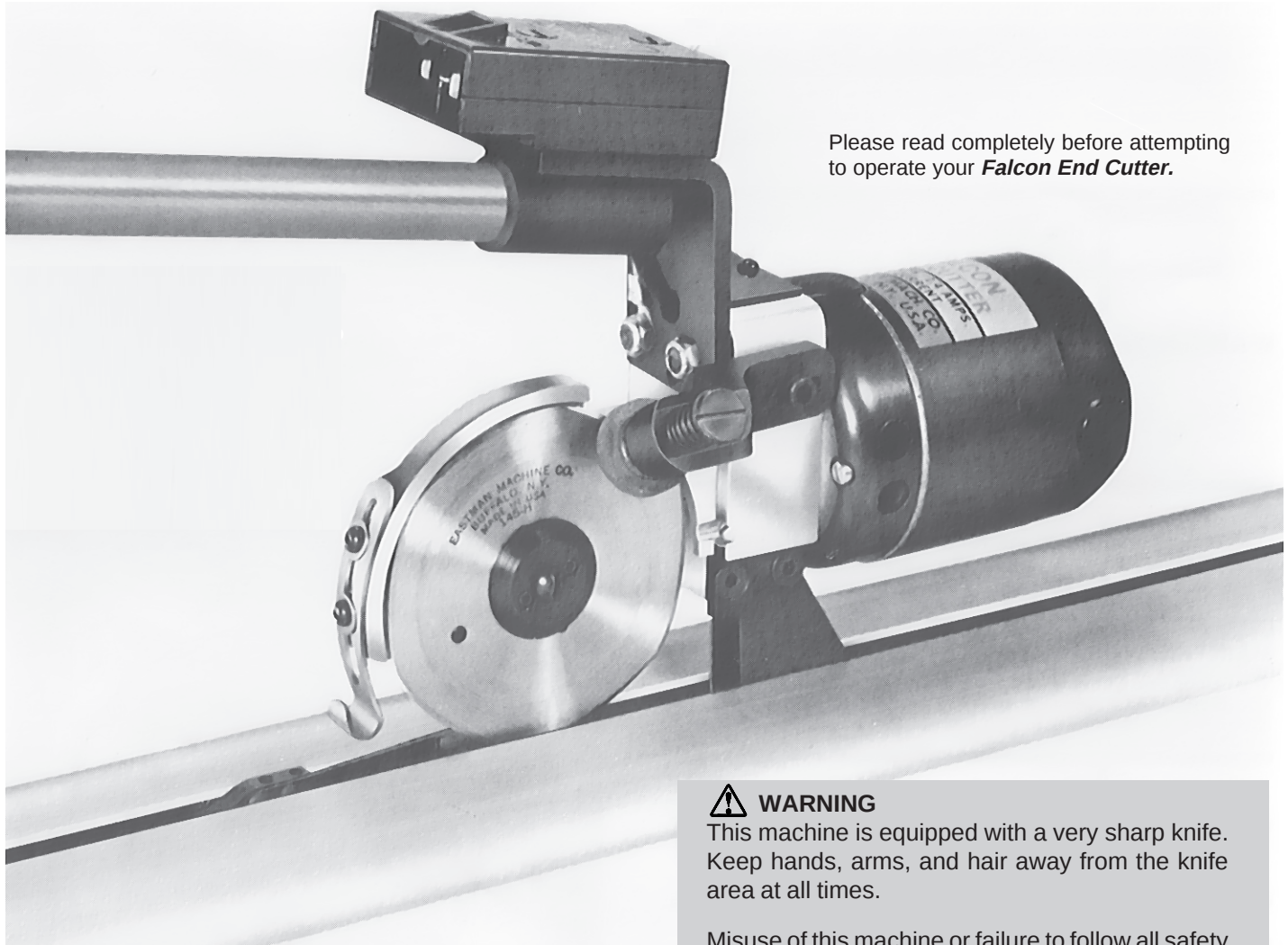


EASTMAN®

Falcon End Cutter ***with Lifting Mechanism***

Models: *FAL-A*
FAL-E



Please read completely before attempting to operate your ***Falcon End Cutter***.



WARNING

This machine is equipped with a very sharp knife. Keep hands, arms, and hair away from the knife area at all times.

Misuse of this machine or failure to follow all safety instructions on this machine and in the instruction manual may result in serious personal injuries.

Instruction Manual and Parts List

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779 Washington St., Buffalo, N.Y. 14203-1396 U.S.A. • (716)856-2200 • Fax (716)856-1140 or (716)856-2068
Manufacturers of Eastman Cloth Cutting and Cloth Spreading Machines
Website: www.EastmanCuts.com

Limited Warranty. Eastman warrants to the buyer that the Falcon End Cutter shall be free from defects in materials or workmanship for a period of 90 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 90-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 to 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.

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IMPORTANT

This manual contains instructions and part numbers for the Falcon End Cutter machine. If you contact Eastman Machine Company for information or to order parts, always specify the machine name and model number.

If you are ordering electrical components, specify the voltage, frequency (Hz), and speed (RPM) of your machine. You can find this information on a label attached to your machine.

Patents Statement

Some parts of this manual and the equipment it describes may be protected by the following U.S. patents: 4,609,244, 4,761,878 and D281,416. Other patents pending.

Trademarks Statement

The names Eastman and Uni-Safe are registered trademarks of the Eastman Machine Company.

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.

Supplementary information may be given in a Note.

Safety and Indemnification

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 instructions of this manual.

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 supply from the machine when it is not in use or during routine maintenance, including lubrication.
- The purchaser must ensure that the electrical power supply line complies with all the local electrical codes and regulations.
- 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.

General Safety Precautions

- 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.
- 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 is intended ONLY for hand-held operation. 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.

Falcon

End Cutter

Operating Instructions

Description

The Falcon End Cutter Rotary Shear is designed for use with a lifting mechanism for cutting across a width of material while it compensates for the height of the lay. It cuts material squarely, accurately, quickly, and eliminates excessive waste throughout the height of the lay. The Rotary Shear Cutter is available with an electric or pneumatic motor. The electric motor is available in either 110 or 220 volts. The electric machine has a motor speed of 12,000 rpm while the pneumatic unit should be operated at 90 psi and will attain a motor speed of 18,000 rpm. A flexible handle attached to the cutter provides for a simple and easy execution of the cutting operation. Additional length handles can be made available depending on the length of the track.

Warning

This machine is equipped with a sharp knife. Keep hands away from knife area at all times. Use handle and control lever when operating or handling the machine. Knife guard should be raised only enough to clear the material being cut. When not in use, knife guard should be set at the lowest position..

DO NOT OPERATE THIS MACHINE WITH KNIFE GUARD REMOVED.

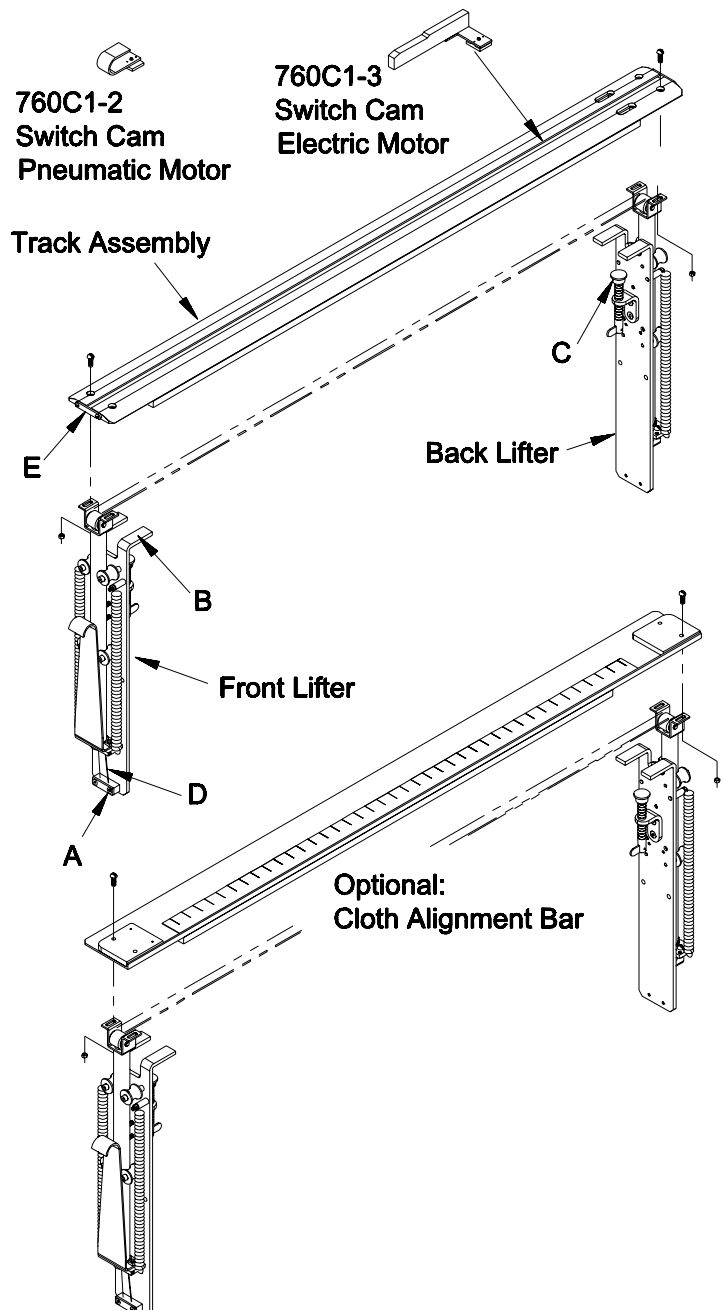
Caution

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

End Cutter, Track & Lifting Mechanism Installation

Remove your Falcon End Cutter from the shipping package. Locate and loosen the lift belt clamping screws (A). Mount the front lift assembly (B) and back lift assembly (C) to the cutting table. Pull the lift belt (D) tight and secure the clamping screws (A). Place the track in place and secure to the lifting mechanism. The track should be mounted squarely to the table.

Loosen the track latch screws (E) and swing latch up. Slide the switch cam in the track as shown. Slide the Falcon End Cutter in the track. Swing down the latch and secure in place. Connect Electric or Air line. The Falcon End Cutter is ready for operation.



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Operation

Load the roll of material on a roll rack. Pull the material over the falcon track and to the desired length. Pull the Falcon End Cutter across to cut the material and return to the home position. Lift the track using the lift handle. The cut end of the material will lay under the track. The track will hold the material in position. The next ply can now be spread.

Maintenance

The Falcon End Cutter is designed to provide many years of trouble free service. The following information will aid in keeping your equipment running at its top efficiency.

Warning

Before performing any of the following procedures, make sure that the attachment plug or air line has been disengaged from the machine.

Knife Replacement--(see Page 9)

To replace knife (80C1-145HS), insert screwdriver in lock screw "B". Turn counter clockwise and remove screw. Remove knife flange cover "C" and replace blade. Be sure that when installing the new knife the name Eastman is shown outward. To reinstall the knife locknut, reverse procedure.

Shear Plate--(see Page 9)

When replacing shear plate (726C1-16), remove blade as outlined on page 5. Remove screws "D". Install shear plate by reversing procedure.

Lubrication--(See page 9)

Knife gear "Z" should be removed and filled with special Eastman libriko grease every three months (excessive grease with cause overheating). Felt wicking "L" and "M" should be oiled monthly.

Knife Sharpening

To obtain a fine, keen edge on the blade, press lightly against the sharpener button (20C12-160) with a constant pressure. To replace sharpener stone, remove screw (308C15-1) on sharpener bracket (35C5-60) and remove sharpener bracket from standard. Insert screwdriver in slotted button (20C12-160) and hold bushing (21C5-5) in place. Turn counter clockwise. Remove spring (34C10-158) and

set aside for later reassembly. Remove screw (301C10-9) by turning screw counter clockwise. The emery wheel (541C1-17) will disengage from sharpener bracket. Remove spring washer (12C15-57) and replace emery wheel. To resecure emery wheel to sharpener bracket, reverse procedure and relocate sharpener bracket on standard.

Motor Maintenance

Electric Motor-(Recommended for light weight material)
the only maintenance required for the electric motor is the brush replacement. With a screwdriver, remove slotted cap screws on rear of motor. Remove brush (36C1-13) from slot. Install new brushes and replace brush caps.

Pneumatic Motor-

(Recommended for heavy weight material)

For best performance, an air pressure of 90 psi is recommended. An air line oiler and filter delivering two to three drops per minute of SAE5 weight spindle oil is recommended. * This air line filter and lubricator is mounted in line with the air inlet hose. Check your air line for presence of any foreign particles before installing machine.

*Not sold with machine.

Microswitch (Electric Motor) - (See page 9)

Remove two screws (300C3-3) securing the microswitch (580C1-94) to standard and remove two leads. Microswitch is wired in series and it is not necessary to mark the leads that mount to this switch. Replace the new microswitch and reverse procedure.

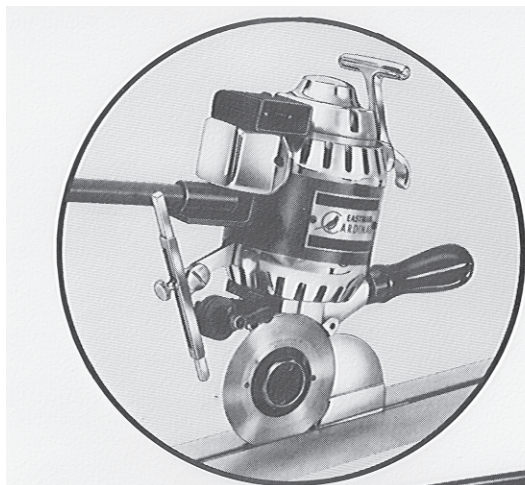
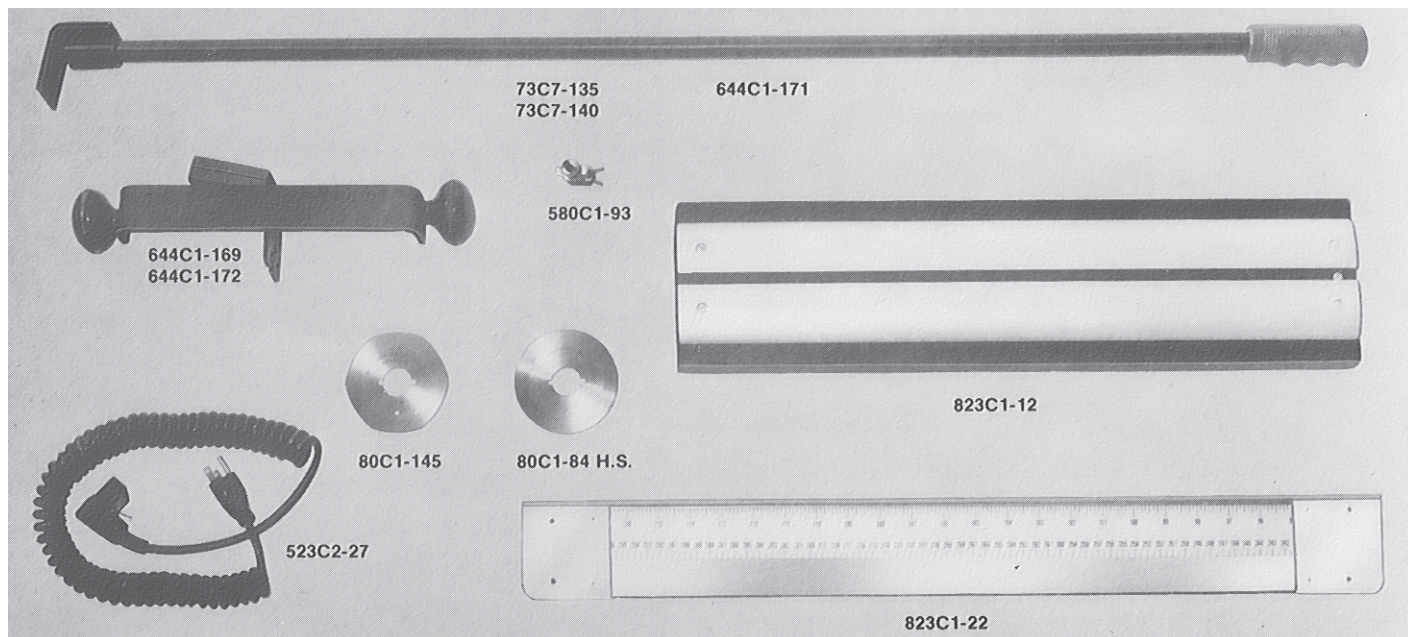
Caution

Excessive soldering heat will damage switch.

Switch in Operating Handle - (See page 9)

Remove the two screws (300C7-2) securing the switch plate (52C5-176) to handle and remove the switch (580C1-48). This switch is wired in series and it is not necessary to mark the leads that mount to this switch. Replace the new switch and reverse procedure.

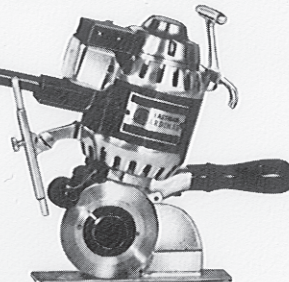
Optional Parts and Supplies



Part Number	Description
73C7-135	36" Extra Length Handle
73C7-140	Variable Length Handle
80C1-84 H.S.	Knife (High Speed) Round
80C1-145	Knife (High Speed) Hexagon
523C2-27	Coil Cord & Plug (Single Phase)
580C1-93	Pressure Switch
644C1-169	Push Pull Handle Bracket & Terminal Block (Electric)
644C1-171	Rear Handle
644C1-172	Push Pull Handle Bracket & Connector Block (Pneumatic)
823C1-12	Variable length Falcon Track (Specify Table Width)
823C1-22	Variable length C.A.B. (Specify Table Width)

534 BK 4" TC

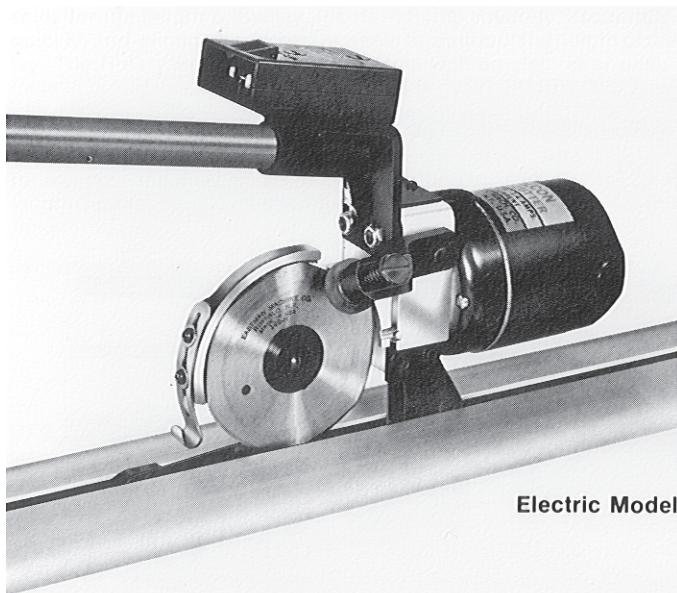
2" Cutting Capacity
Fits Regular Falcon Track
Heavy Duty Electric Motor



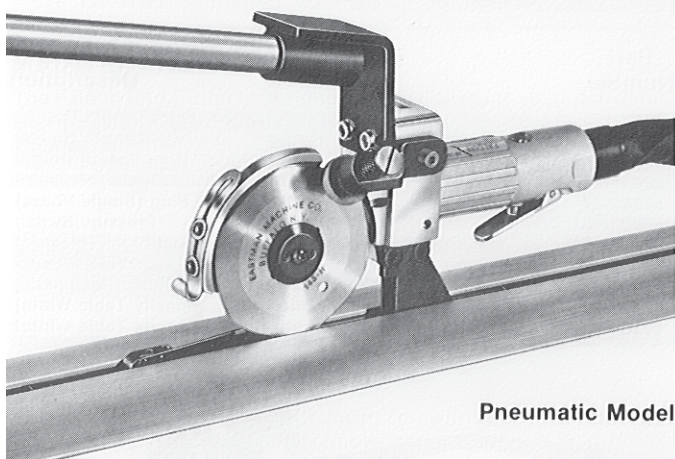
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Falcon End Cutter

Illustrated Parts List



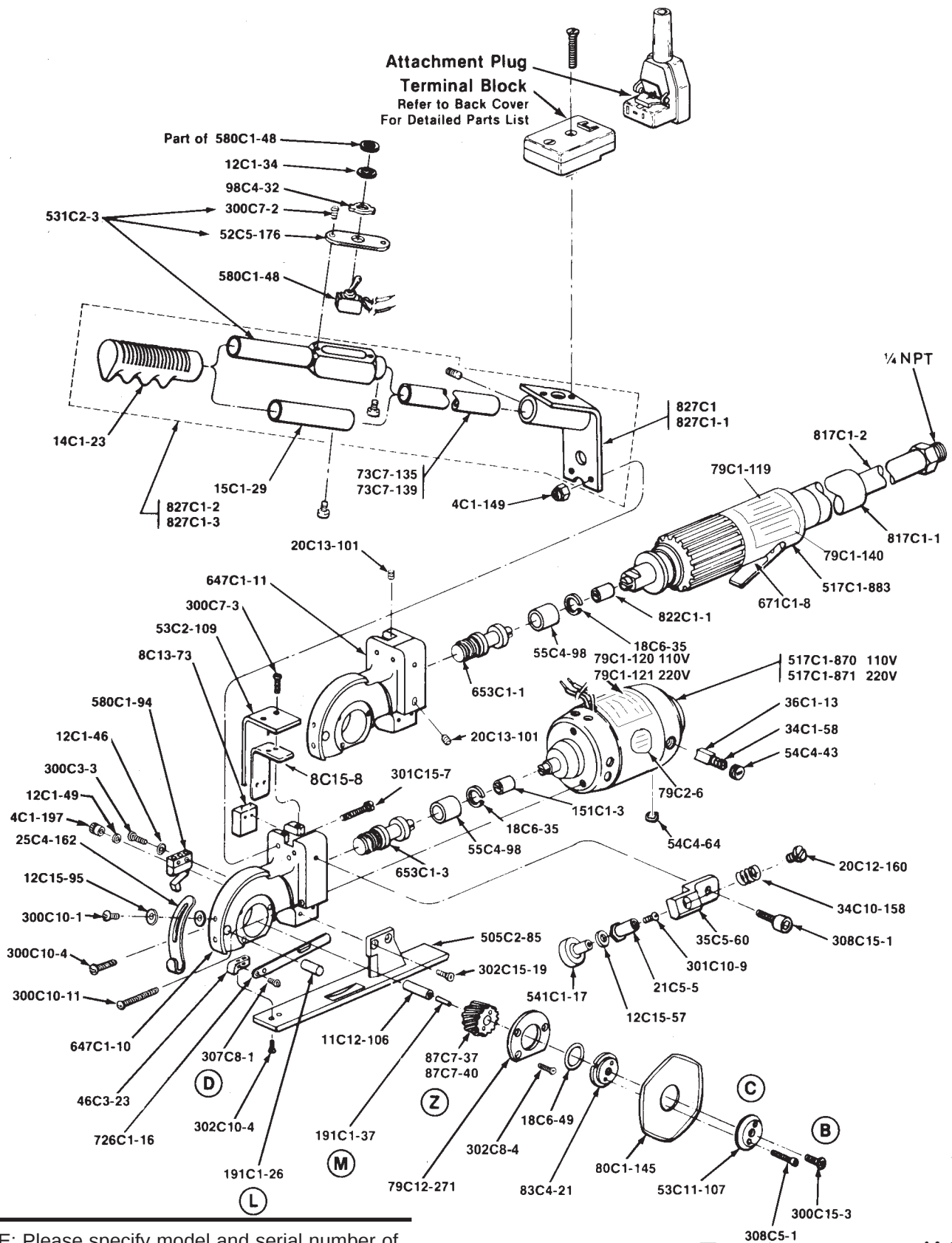
Electric Model



Pneumatic Model

Part Number	Air	220v	110v	Description
4C1-149	2	2	2	Elastic Stop Nut
4C1-197	2	2	2	Allen Nut
8C13-73	0	1	1	Micro Switch Insulation
8C15-8	0	1	1	Switch Cover Insulation
11C12-106	1	1	1	Gear Shaft
12C1-34	0	1	1	Lockwasher
12C1-46	0	2	2	Lockwasher

Part Number	Air	220v	110v	Description
12C1-49	2	2	2	Washer
12C15-57	1	1	1	Spring Washer
12C15-95	4	4	4	Washer, #6 Flat
14C1-23	1	1	1	Handle Grip Plastic
15C1-29	1	0	0	Stud Handle
18C6-35	1	1	1	Snap Ring
18C6-49	1	1	1	Oil Seal Ring
20C12-160	1	1	1	Sharpener Screw, Button Head
20C13-95	1	1	1	Screw, 6-32 x 1/4 Self Tap Screw
20C13-101	3	0	0	Set screw
21C5-5	1	1	1	Sharpener Bushing
25C4-162	1	1	1	Knife Guard
34C1-58	0	2	2	Brush Spring
34C10-158	1	1	1	Sharpener Spring
35C5-60	1	1	1	Sharpener Bracket
36C1-13	0	2	2	Brush
46C3-23	1	1	1	Spring Block
52C5-176	0	1	1	Switch Base
53C2-109	0	1	1	Switch Cover
53C11-107	1	1	1	Knife Flange Cover
54C4-43	0	2	2	Brush Cap
54C4-64	0	1	1	Hole Plug
55C4-98	1	1	1	Spacer Bearing
73C7-135	0	1	1	Tube Handle 36"
73C7-139	1	0	0	Tube Handle 39"
79C1-119	1	0	0	Falcon Air Decal
79C1-120	0	1	0	Falcon Decal, 110v
79C1-121	0	0	1	Falcon Decal, 220v
79C1-140	1	0	0	Caution Decal
79C2-6	0	1	1	Caution Decal
79C12-271	1	1	1	Gear Retaining Plate
80C1-145	1	1	1	Knife (Hex)
83C4-21	1	1	1	Knife Flange
87C7-37	1	0	0	2-Lead Knife Gear
87C7-40	0	1	1	4-Lead Knife Gear
98C4-32	0	1	1	On-Off Switch Clip
151C1-3	0	1	1	Motor CHK Coupling
191C1-26	1	1	1	Knife Pad Wipe
191C1-37	1	1	1	Felt Wick
300C3-3	0	2	2	Screw, 2-56 x 1/2 Round Head
300C7-2	0	2	2	Screw, 4-36 x 3/16 Round Head
300C7-3	0	4	4	Screw, 4-36 x 1/4 Round Head
300C10-1	2	2	2	Screw, 6-32 x 3/16 Round Head
300C10-4	0	1	1	Screw, 6-32 x 3/8 Round Head
300C10-11	0	2	2	Screw, 6-32 x 1-1/8 Round Head
300C15-3	1	1	1	Screw, 10-32 x 3/8 Round Head
301C10-9	1	1	1	Screw, 6-32 x 3/16 Fillister Head
301C15-7	2	2	2	Screw, 10-32 x 1-1/4 Fillister Head
302C8-4	3	3	3	Screw, 4-40 x 3/8 Socket Flat Head
302C10-4	2	2	2	Screw, 6-32 x 5/16 Flat Head
302C15-19	2	2	2	Screw, 10-32 x 1" Socket Flat Head
307C8-1	2	2	2	Screw, 4-40 x 1/4 Button Head
308C5-1	2	2	2	Screw, 3/48 x 1/2 Socket Head
308C15-1	1	1	1	Screw, 10-32 x 1/2 Socket Head
309C12-2	1	1	1	Set screw, 8-32 x 5/16
505C2-85	1	1	1	Base Plate Assembly
517C1-870	0	0	1	Motor Assembly 110v
517C1-871	0	1	0	Motor Assembly 220v
517C1-883	1	0	0	Motor Assembly, Pneumatic
531C2-3	0	1	1	Complete Assembly
541C1-17	1	1	1	Emery wheel Assembly
580C1-48	0	1	1	Toggle Switch
580C1-94	0	1	1	Switch for Cam
647C1-10	0	1	1	Standard w/Shaft & Felt Wick
647C1-11	1	0	0	Standard w/Shaft & Felt Wick
653C1-1	1	0	0	Worm Shaft (Pneumatic)
653C1-3	0	1	1	Worm Shaft (Electric)
671C1-8	1	0	0	Motor Valve
726C1-16	1	1	1	Shear Plate with Blank
817C1-1	1	0	0	Exhaust Over Hose
817C1-2	1	0	0	Air Intake Hose
822C1-1	1	0	0	Air Motor Coupling
827C1	0	1	1	Handle Bracket Assembly
827C1-1	1	0	0	Handle Bracket Assembly
827C1-2	0	1	1	Handle Bracket Assembly Complete
827C1-3	1	0	0	Handle Bracket Assembly Complete



NOTE: Please specify model and serial number of machine when ordering parts.

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Track & Lifter Assembly

ITEM	PART NO.	DESCRIPTION	QTY.	ITEM	PART NO.	DESCRIPTION	QTY.
1	760C1-2	Switch Bracket, Pneumatic "only"	1	26B	41C5-15	Belt Roller, Lower	1
2	300C15-3	Screw, Round Head 10-32 x 3/8	1	27	181C4	Lift Belt	A/R
3	17C15-134	Roll Pin	2	28	311C14-2	Screw, Shoulder, 1/4 x 1-1/4	4
4	64C1-11	Switch Cam, Air Valve	1	28A	311C14-1	Screw, Shoulder, 1/4 x 3/4	4
5	46C3-20	Clamp Block	1	29	70C4-45	Roller Guide	8
6	760C1-3	Switch Bracket, Electric "only"	1	30	55C4-118	Roller Spacer	4
7	64C1-12	Switch Cam, Electric "only"	1	31	15C13-59	Stud, Lift Spring, Long	2
8	300C15-3	Screw, Round Head 10-32 x 3/8	1	31A	15C13-56	Stud, Lift Spring, Short	2
9	17C15-134	Roll Pin	2	32	79C12-295	Main Frame, Lift Assembly	2
10	119C4-42	Support Plate	1	33	20C13-4	Setscrew 8-32 x 3/16	2
11	46C3-20	Clamp Block	1	34	191C2-1	Swivel Pad	2
12	302C15-3	Screw, Flat Head 10-32 x 1/2	2	35	50C11-34	Clamp Base	2
13	823C1-12-TS	Falcon Track Assembly	1	36	302C18-2	Screw, Flat Head 1/4-20 x 1/2	4
	823C1-33-TS	Falcon Track Assembly, 96" & larger	1	37	17C15-126	Roll Pin 1/8 x 1/2	2
	823C2-1-TS	Falcon Track Assembly, Bias "only"	1	38	57C7-49	Clamp Lever	2
14	20C12-156	Latch Screw	4	39	20C5-22	Clamp Screw	2
15	97C3-38	Track Latch	2	40	33C10-59	Belt Holder	2
15A	67C6-1	Latch Mount, 96" & larger	2	41	302C15-3	Screw, Flat Head 10-32 x 1/2	2
16	300C18-4	Screw, Round Head 1/4-20 x 5/8	4	42	34C10-181	Spring	4
17	193C1-14-TS	Falcon Track, Solid	1	43	18C6-65	Grip Ring, Large	4
	193C1-19-TS	Hollow Falcon Track, 96" & larger	1	44	35C7-35	Plate, Spring Mount	2
	193C1-25-TS	Bias Falcon Track	1	45	300C18-4	Screw, Round Head 1/4-20 x 5/8	4
18	C9-27 Q	Track Wear Strip	A/R	46	62C16-265	Roller Bracket	1
19	211C1-2	Foam Tape	A/R	47	55C4-117	Spacer, Front Belt Clamp	1
20	840C1-1	Lifter Assembly	1	48	302C15-7	Screw, Flat Head 10-32 x 1	2
	840C1-2	Bias Lifter Assembly	1	49	4C2-119	Square Nut, 1/4-20	2
21	4C2-58	Nut, Hex 1/4-20	4	50	22C3-9	Lift Handle	1
22	18C6-47	Grip Ring	6	51	12C15-14	Spacer, Short	8
23	763C1-27	Lift Tube	2	52	302C18-2	Screw, Flat Head 1/4-20 X 1/2	2
24	11C2-54	Shaft, Belt Roller	3	53	79C12-296	Slider Plate, Bias Track "only"	1
25	12C15-108	Washer, Flat 1/4	6				
26	41C5-12	Belt Roller, Front	1				
26A	41C5-14	Belt Roller, Back	1				

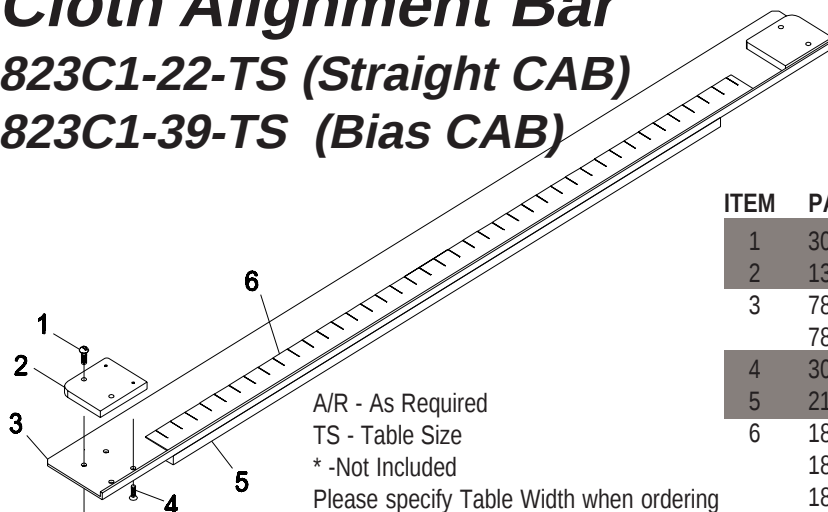
A/R - As Required

TS - Table Size

Cloth Alignment Bar

823C1-22-TS (Straight CAB)

823C1-39-TS (Bias CAB)



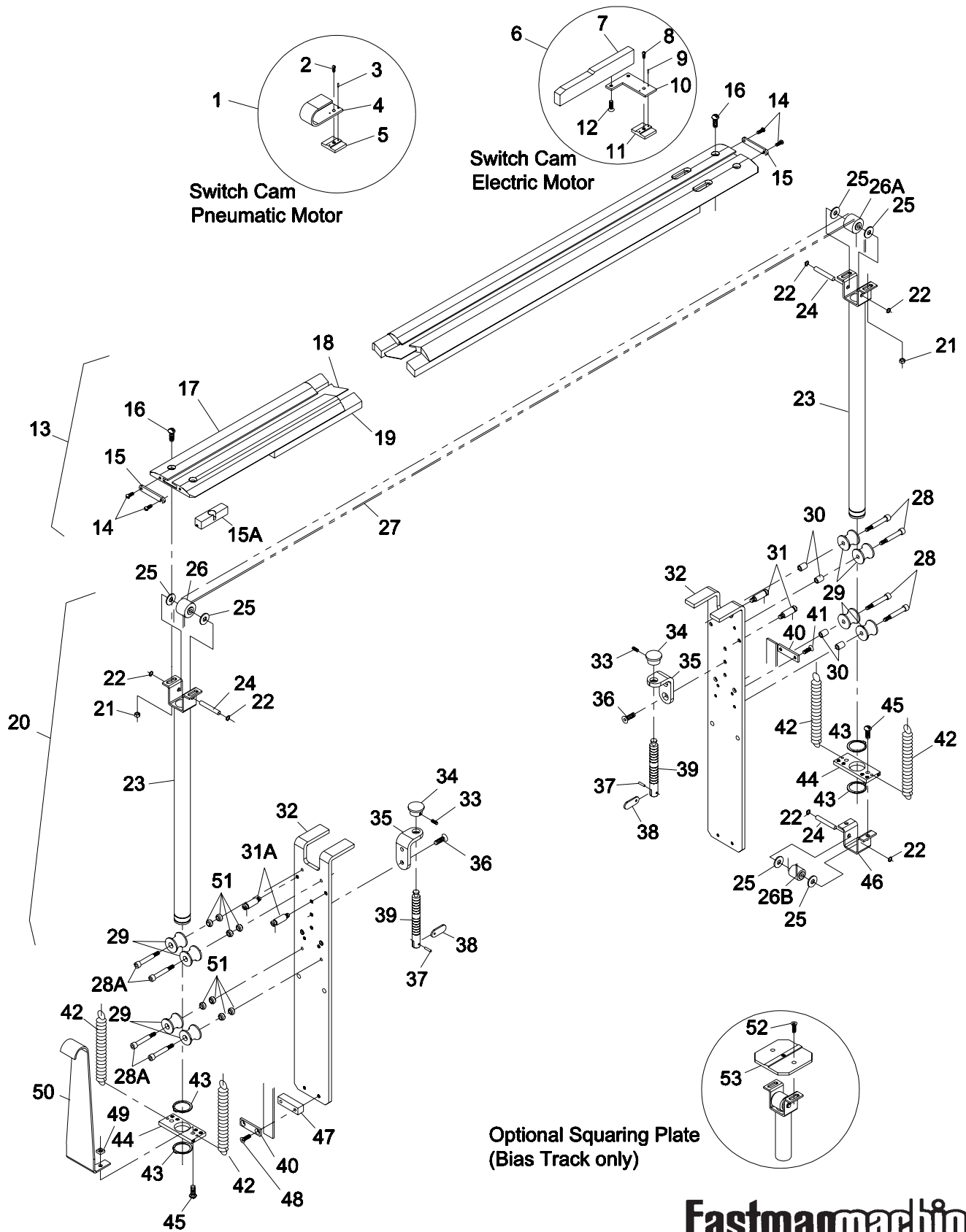
A/R - As Required

TS - Table Size

* -Not Included

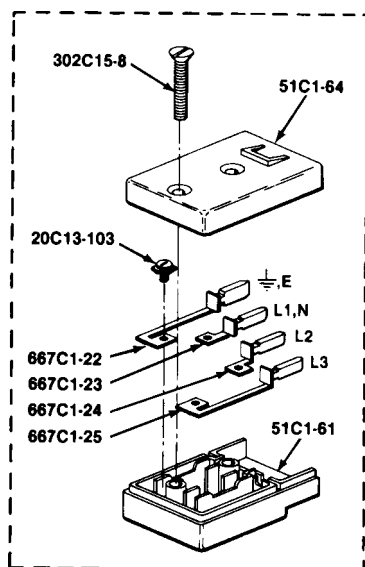
Please specify Table Width when ordering

ITEM	PART NO.	DESCRIPTION	QTY.
1	300C18-4	Screw, Round Head 1/4-20 x 5/8	*8
2	136C1-24	Bar Weight	2
3	78C3-2	Cloth Alignment Bar	1
	78C3-5	Cloth Alignment Bar, Bias Cut only	1
4	302C10-10	Screw, Flat Head 6-32 x 7/16	8
5	211C1-2	Foam Tape	A/R
6	185C1-227	Scale, Inches	1
	185C1-240	Scale, 240 cm	*1
	185C1-236	Scale, Units	*1



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Electrical Connections

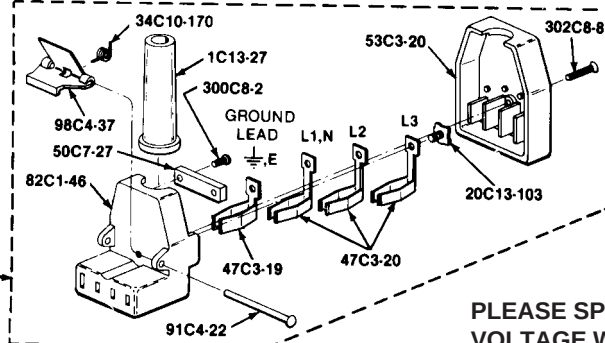


TERMINAL BLOCK

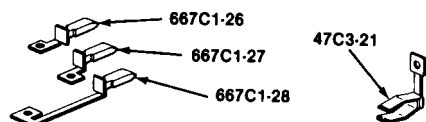
**508C1-100
SHOWN**

ATTACHMENT PLUG—

523C1-100
SHOWN



**PLEASE SPECIFY
VOLTAGE WHEN
ORDERING PARTS**



⚠ WARNING

Electrical connections to this machine must be made by a qualified electrician ONLY. Failure to follow applicable codes and regulations and conduct a ground lead to terminal "E" on the attachment plug may result in serious personal injuries.

For user safety, connect a ground lead to terminal “E” on the attachment plug.

Always unplug the machine before performing maintenance, adjustment or repairs.

		EASTMAN 10A 380V 3~	EASTMAN 10A 220V 3~	EASTMAN 10A 220V ~	EASTMAN 15A 120V ~	EASTMAN 25A 42V ~
Description	Part No.					
Attachment Plug		523C1-99	523C1-100	523C1-101	523C1-102	523C1-103
Cord Sleeve	1C13-27	1	1	1	1	1
U-Lock Sleeve	20C13-103	4	4	3	3	3
Spring	34C10-170	1	1	1	1	1
Terminal Sleeve	47C3-19	1	1	1	1	1
Terminal Sleeve (current)	47C3-20	2	3	1	1	1
Terminal Sleeve (current)	47C3-21	1	—	1	1	1
Cord Clamp	50C7-27	1	1	1	1	1
Attachment Plug Cover		53C3-19	53C3-20	53C3-21	53C3-22	53C3-23
Attachment Plug Body	82C1-45	1	—	—	—	—
Attachment Plug Body	82C1-46	—	1	—	—	—
Attachment Plug Body	82C1-47	—	—	1	—	—
Attachment Plug Body	82C1-48	—	—	—	1	—
Attachment Plug Body	82C1-49	—	—	—	—	1
Rivet	91C4-22	1	1	1	1	1
Thumb Clip	98C4-37	1	1	1	1	1
Screw #4-40 x 3/8 Round Head	300C8-1	—	—	2	2	—
Screw #4-40 x 1/2 Round Head	300C8-2	2	2	—	—	2
Screw #4-40 x 7/8 Round Head	302C8-8	1	1	1	1	1
Terminal Block		508C1-99	508C1-100	508C1-101	508C1-102	508C1-103
U-Lock Screw	20C13-103	4	4	3	3	3
Terminal Block Bottom	51C1-61	1	1	1	1	1
Terminal Block Top		51C1-63	51C1-64	51C1-65	51C1-66	51C1-67
Screw #10-32 x 1-1/8 Flat Head	302C15-8	2	2	2	2	2
Terminal Contact w/Pin E	667C1-22	1	1	1	1	1
Terminal Contact w/Pin L1,N	667C1-23	1	1	1	—	—
Terminal Contact w/Pin L2	667C1-24	1	1	—	1	—
Terminal Contact w/Pin L3	667C1-25	—	1	—	—	1
Terminal Contact w/Pin L1,N	667C1-26	—	—	—	1	1
Terminal Contact w/Pin L2	667C1-27	—	—	1	—	—
Terminal Contact w/Pin L3	667C1-28	1	—	—	—	—

Eastmanmachine COMPANY

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