FORMAX®

590 Series
Decollators

OPERATOR MANUAL
FIRST EDITION

TABLE OF CONTENTS

DESCRIPTION

FUNCTIONAL

Separation of multi-part forms with removal of the carbon paper is the function of the multi-part decollator. This is accomplished by splitting a single pile of forms into two to six chutes (depending upon model) while rolling the carbon -paper between each part onto a carbon fork for disposal. This operation takes place at high speed (up to450 feet per minute) and may include slitting off the pinfeed strip on one or both sides of the forms or center slit as they are decollated. Carbonless forms may also be edge or center-slit and decollated.

ELECTRICAL

Mechanical drive for the FD590 series decollators is provided by a DC motor. This one quarter horsepower unit has uniformly high torque throughout its entire speed range of zero to four hundred and fifty feet per minute. The motor's electrical source is a special variable output DC speed control. Current to the motor is regulated for gentle starting and to minimize damageto paper and machine in the event of a jam. Speed is continuously variable throughout the operating range for optimum decollating of most forms.

ITEM			SPECIFICATION		
Power Requirements			115 volts, 50-60 cycles, 5 Amps 220 volts, 50-60 cycles, 2.5 Amps		
FD592, FD582	FD594, FD584	FD596, FD586			
Operating Speed Range			0-450 feet per minute (top speed depends upon form type)		
Inspection and Maintenance			Annually		
	FOUR-PART BASE UNIT		EACH ONE-PART ADD ON		
	Actual	Shipping	Actual	Shipping	
Weight	180 lbs.	240 lbs.	45 lbs.	50 lbs.	
Length	57 in.	65-1/2 in.	13-1/2 in.	16-1/2 in.	
Width	30 in.	31-1/2 in.	30 in.	31-1/2 in.	
Height	39 in.	42-1/2 in.	39 in.	40-1/2 in.	
		NOT SLITTING	SLITTING		
Form Size Limits					
Width		2-3/8 TO 18 inches	2-3/4 to 19-1/8 inches		
Depth (perf to perf)		2 to 14 inches	2-14 inches (opt. to 22")		
Form Types Standard Machine		Most Carbon Types			
With Paper Control Accessory		Most Carbon and Carbonless Types			
Form Weights		From 10 lbs. Bond to 140 lbs. Card Stock			

DESCRIPTION

MODEL NUMBERS

FD592 TWO-PART DECOLLATOR

This unit will separate two ply's of forms during eachpass. It serves as the first two parts ofthe 3, 4, 5 and 6 part units.

FD594 FOUR-PART DECOLLATOR

Two single part add-ons are added to the FD592 to form this unit. It will separate up to four ply's in one pass.

FD596 SIX-PART DECOLLATOR

Three FD590-62 and one FD590-61 add-ons make the base FD592 a six ply forms decollator.

FD582, FD584, FD586 DECOLLATORS

These are 220 volt versions of the FD592, FD594, FD596.

ACCESSORY PAPER CONTROLS

The weighted roller bars are used to decollate carbon-backed or carbonless forms. They may also be used to break extra-tough crimps on carbon4ype forms. One control is used on each chute of the decollator. The controls are snapped into place when installed and pivot for easy loading. The weighted collars.are adjustable. A typical installation is shown below.

ACCESSORY NUMBERS

FD590-42 WASTE BASKET

Spare triM catch basket. One comes standard with all decollators.

FD590-60 PAPER CONTROLS

Order one less than the number of chutes to decollate carbon-back or carbonless forms.

FD590-61 ONE PART ADD-ON with Jog Panel FD590-62 ONE PART ADD-ON without Jog Panel

Expands the base FD592 into a 3, 4, 5 or 6 part machine (field installed).

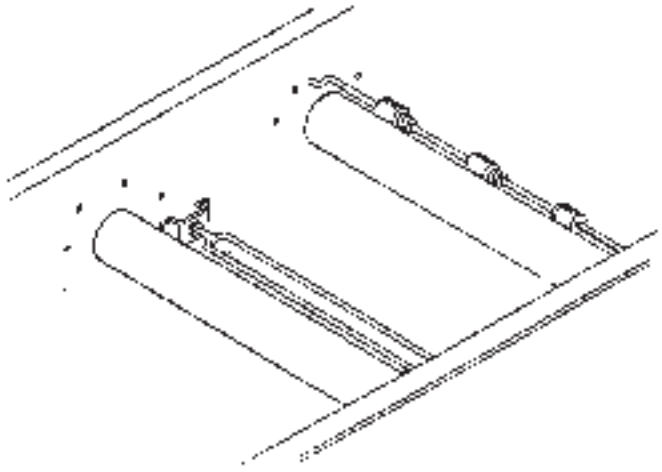
FD590-77 CENTER SLITTER

Makes a mid-form cut in forms as they are decollated. Factory or field installed by service reps.

FD596-81 RECOLLATING FEATURE

Brings forms back together after carbon is removed.

FD590-83 SIDE DELEAVER - FOUR PART FD590-84 SIDE DELEAVER - FIVE PART FD590-85 SIDE DELEAVER -THREE PART FD590-20, StaticBrush Kit for 4 part. FD590-22 22u Forms Adapter, 1 per chute.



INSTALLATION

UNPACKING

DO NOT DESTROY THE SHIPPING CARTON OR MATERIALS UNTIL THE MACHINE HAS BEEN INSPECTED FOR SHIPPING DAMAGE. MISSING PARTS, AND PROPER OPERATION.

These steps are recommended for unpacking:

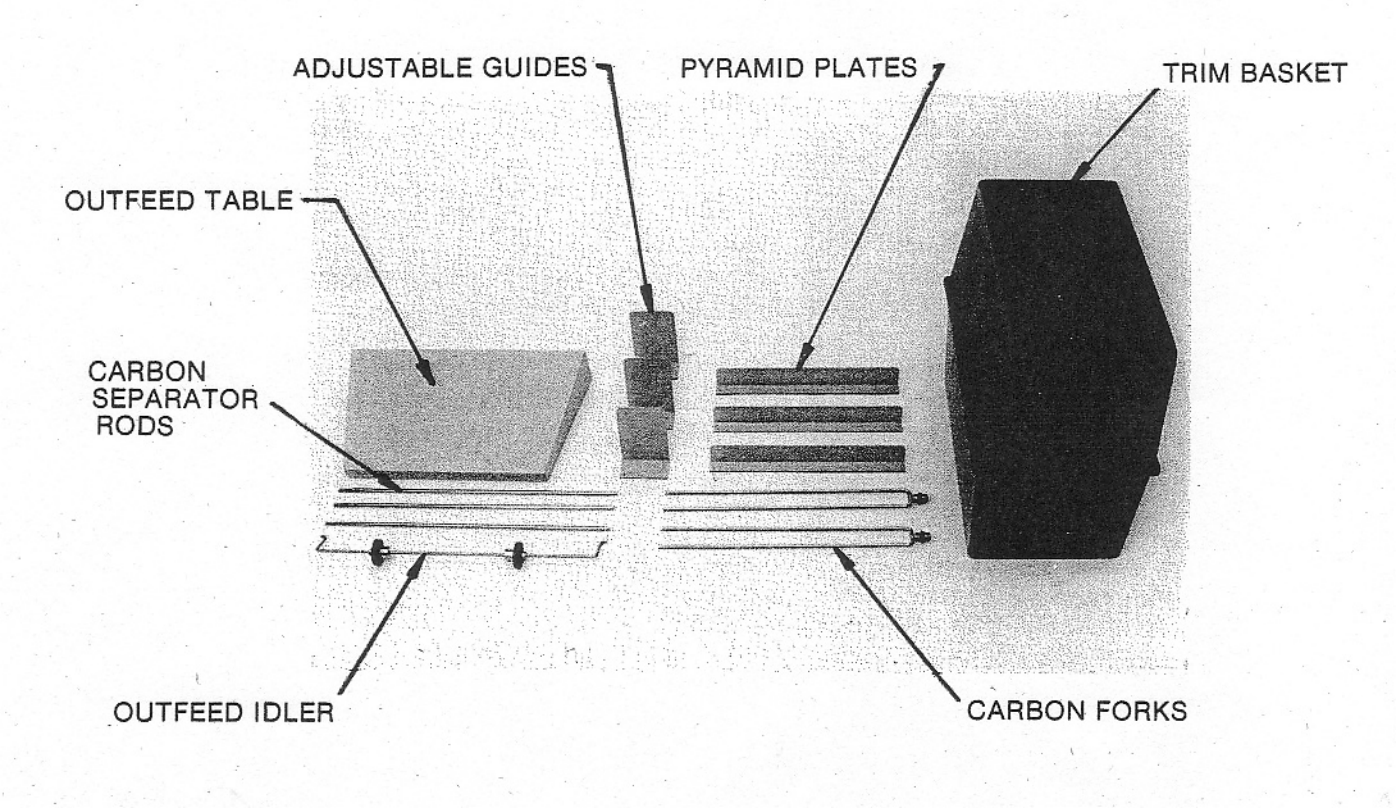
1. Remove straps and staples holding the Carton to the Pallet and liftthe Carton off the machine.

2. Check the machine for completeness against the photo below.

3. Inspect the machine for paint and structural damage.'If damage or missing parts are noted, contact your Sales Representative immediately. Save cartons and packing materials. They may be required to substantiate a damage claim or to return an inoperable or irreparable machine.

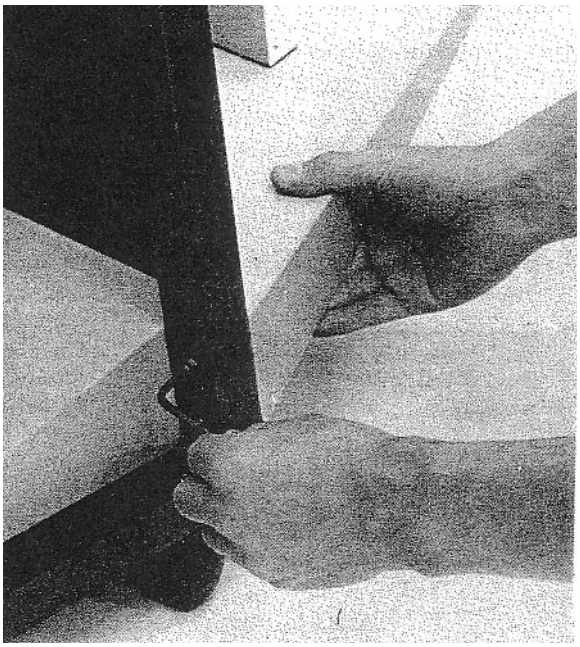
4. Remove straps holding the machine to the Pallet.

5. The machine can now be slid off the Pallet sideways. This usually requires at least two people, one on each end of the machine.

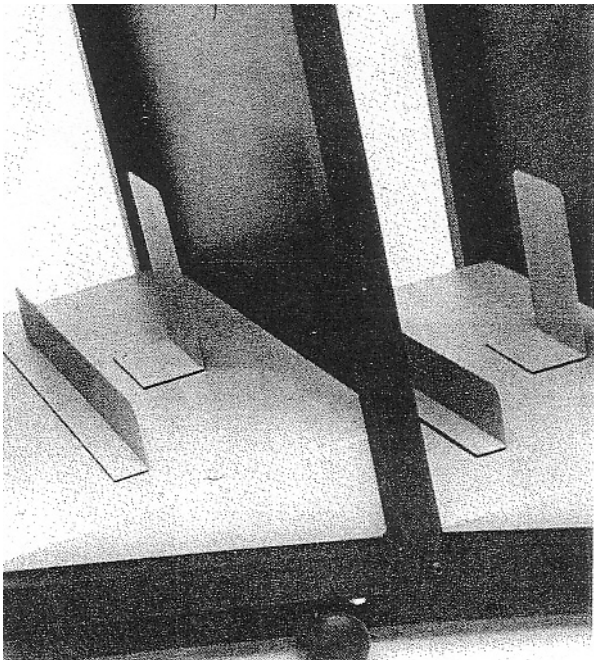


ASSEMBLY

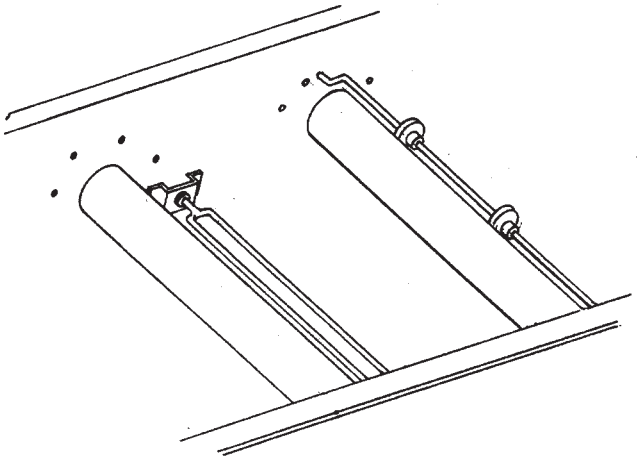
After all the parts have been accounted for, locate the long mounting screws-and the alien wrench, and proceed with assembly steps.



1. Use the long mounting screws to mount the Outfeed Table in the outfeed position as shown above. NOTE: if an Add-On Unit is going to be installed, mount the Outfeed Table on the last Chute.



2. Place the Pyramid Plates and Adjustable Guides on Outfeed Table and Trays as shown.



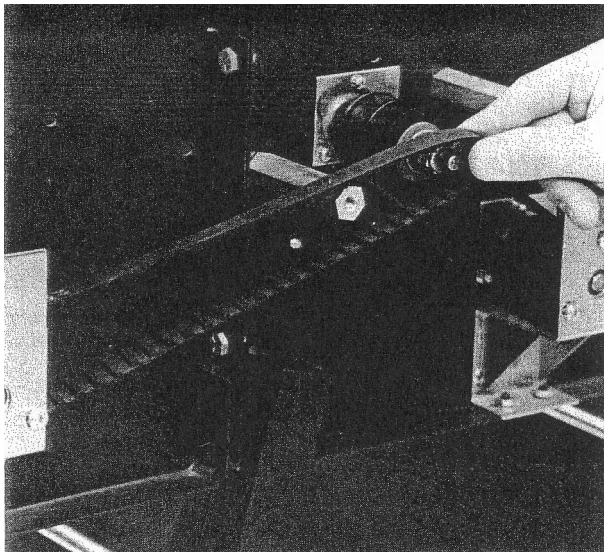
3. If optional paper controls are being used, place the ends of the rods in the holes just in front of each Roller.

ADD-ON INSTALLATION

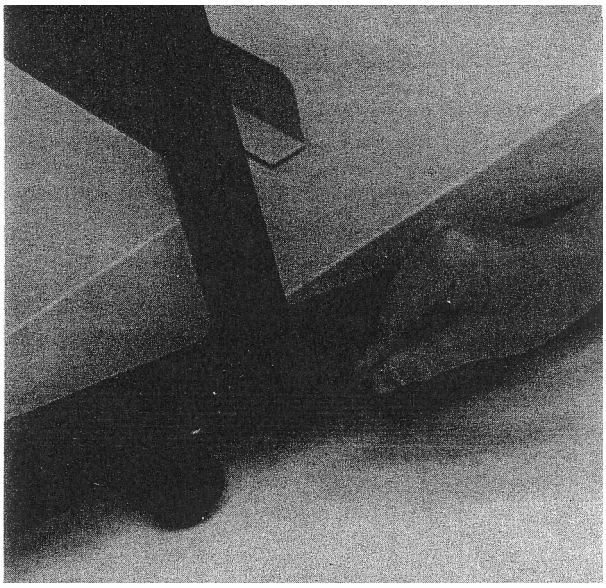
If you are installing FD590 Add-On Units, refer to the instructions below to join the main Two Part Unit with one or more Add-On Units.

If this is to be added on an installed machine, remove Outfeed Table and then proceed with the following instructions.

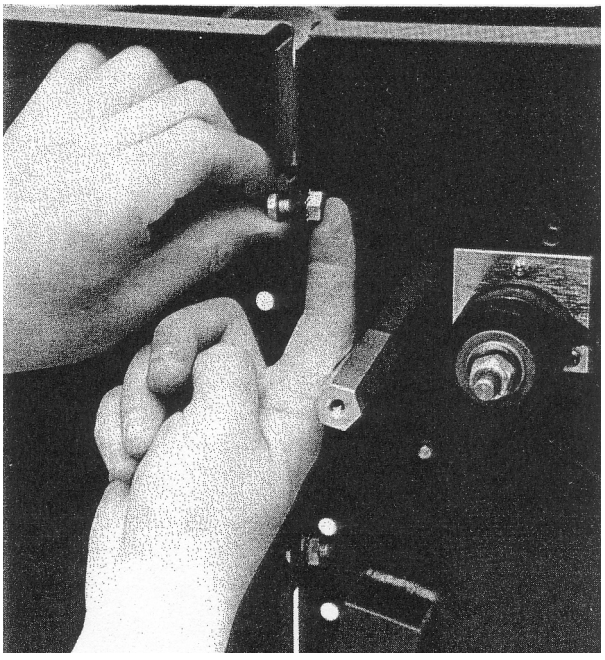
1. Make sure the machine is unplugged. Then . remove Side Covers and End Caps.



2. Remove idler bearing plate by unscrewing the two screws at the ends of the idler Shaft. Place Belt around unused pulley on 2-part.



3. Back up Add-On Unit to 2-part machine until both units are bufted together; then secure them with screws provided.



4. Install screws through End Cap mounting holes on both sides with nuts and tighten. Install the wires matching color to color.

5. Adjust idler pulley to tension equivalent to the rest of the belts.

6. Repeat steps 2 - 5 for each Add-On Unit. Replace Side Covers, End Caps and Outfeed Table.

OPERATION

GENERAL

This section describes machine nomenclature, form threading, and operator procedures. A brief table of operating hints concludes the section.

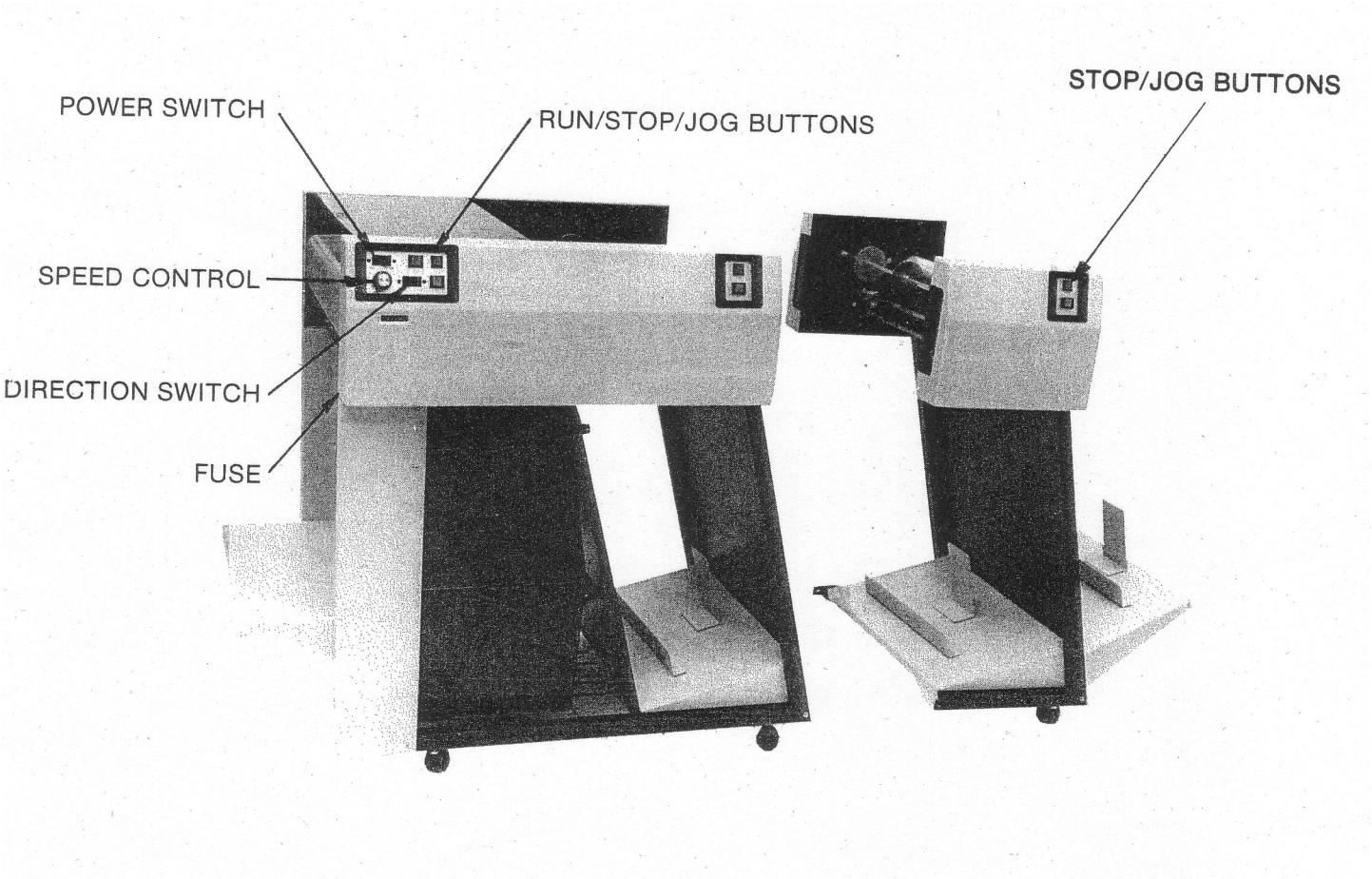
.NOMENCLATURE

Operator-adjustable controls are shown in the photo below and on the next page.

SAFETY WARNING

The machine has built-in safety clutches to allow the rollers and the carbon forks to slip if anything should get caught in them, but these clutches do not replace good operating practices.

- Do not touch the rolters when- they are spinning.
- Keep fingers, long hair, loose clothing away from tractors, slitters, shafts, rollers and carbon forks while machine is on.
- Refer servicing to qualified personnel.



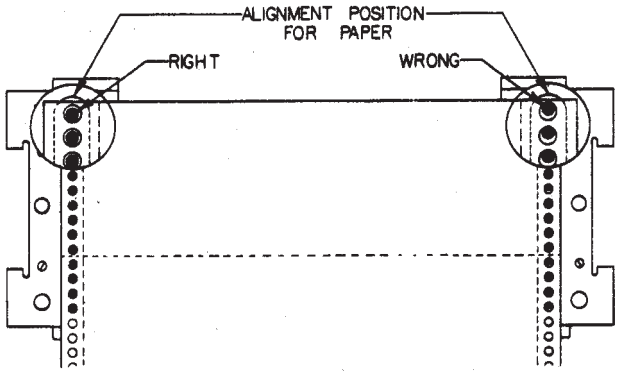
THREADING

1. Turn Power Switch on.

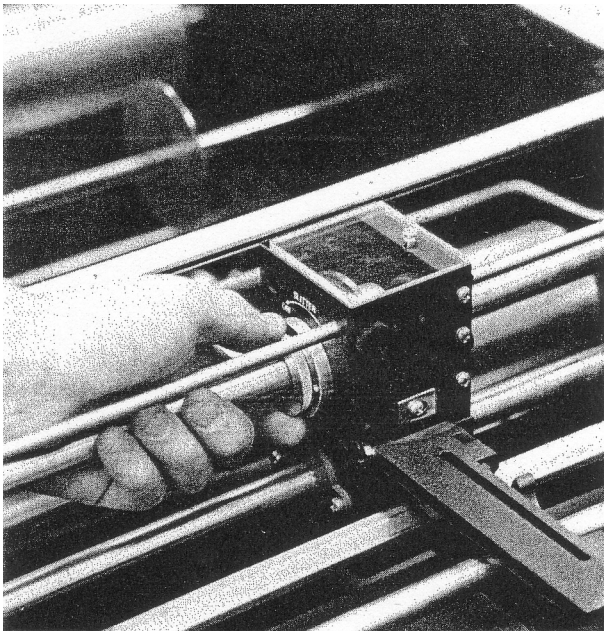
2. Set the Speed control at a low speed for threading.

3. Lift Tractor Tables and lay the margin holes of the form over the Tractor Pins.

4. Close down the Upper Tractor Tables and secure the! r location by tightening the Tractor Locks. NOTE: Do not stretch, the form too tightly between the pins; the pins should be centered in the margin holes.

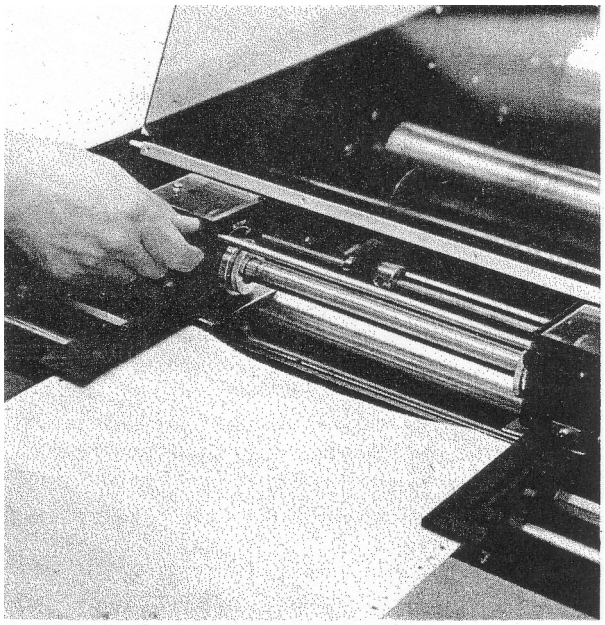


5. If slitting, be sure that the Slitter Blades are engaged. This is accomplished by rotating the slitting controls in a counterclockwise direction as far as they will go without force. CAUTION: Always be sure that the Slitter Blades are disengaged and out of the form path when slitting is not being performed.



6. With Direction Switch in forward setting, use the Jog Button to advance the form to the opening in the Slitter Boxes.

7. Loosen the Adjusting Thumb Screw to position the Slitter Boxes.

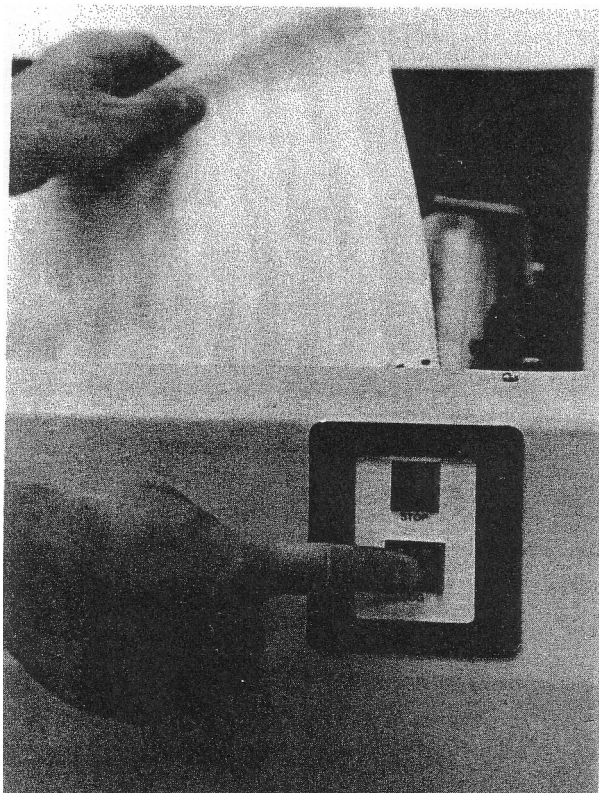


8. Locate the Alignment Mark on the Slitter Box and position the Box where you wish to slit. For more accurate alignment of the Slitter Boxes, look down through the top Window and sight down along the Upper Slitter Blade. Lock the Boxes in position by tightening the Adjusting Thumb Screws.

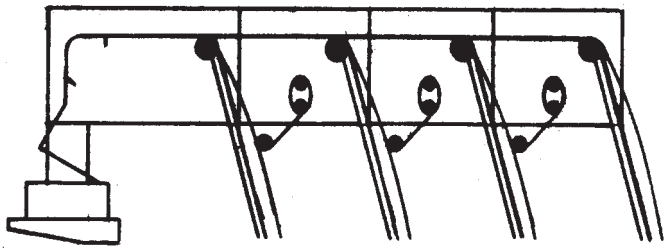
THREADING (continued)

9. Depress the Jog Button to advance the form to the first Roller.

10. Stepping around to the right (operator) side of the machine, grasp the form in the left hand and use the Jog Button at the outfeed end of the machine with the right hand.

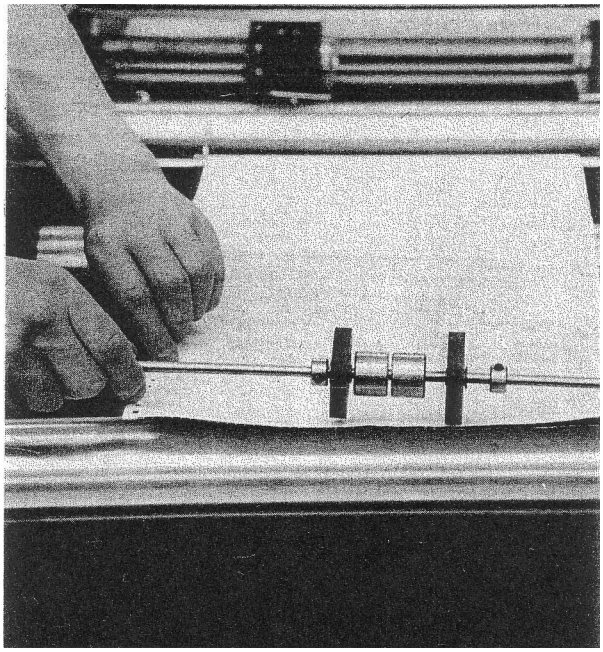


11. Depress the Jog Button to give you enough form to thread the first Chute. Drop the first (bottom) sheet and the carbon behind the Carbon Separator Rod. Thread the Carbon onto the Fork. Jog to take up slack.



12. Repeat step 11 for each Chute.

13. The top copy must go under the Outfeed Idler.



14. When all forms are positioned to start refolding correctly, turn the machine on by depressing the green Push Button, and advance the Speed Control.

15. Select the speed that allows the form to refold best.

16. When the run is finished, turn the Carbon Fork so that the two tongs are horizontal. Rotate the Pivot Bracket which retains the Carbon Fork on the operator side. The Bracket will push the Carbon Fork out of its seat. Lift up and pull back on the Fork and the opposite end will come free. Dump the carbon off the Fork. A gentle squeeze on the closed end of the Fork will free the carbon for easy removal.

THREADING FOR SIDE DELEAVER (Optional)

1. Feed forms into tractors. (See Fig. 1)

2. Adjust tractors so that the perforation of the left margin of the form lines up to approx. 1/4 inch from the end of the deleaver rod. (See Fig 2)

3. Adjust the right side margin slittersothat it will remove the right side margin.

4. Place the. bottom ply and the bottom carbon under the first deleaver rod. (See Fig. 3)

5. Carefully pull the carbon (from step 4) loose from the left margin, and pull it back over the top of the deleaver rod toward the infeed of the machine then down to the carbon fork. (See Fig. 4)

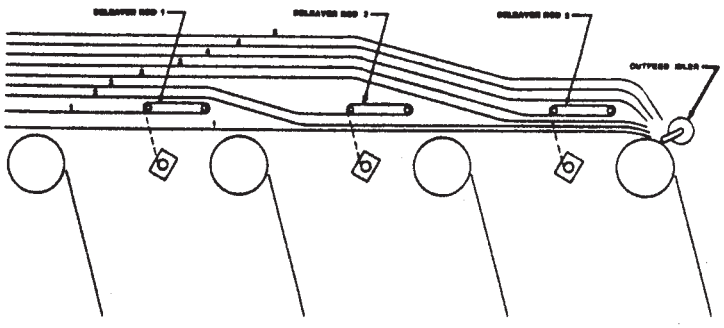
6. Repeat- step 5 for each of the remaining carbons.

7. After all of the carbons have been. threaded, bring the form *(which still should be. intact and bound at the left margin) down the last chuteof the decollator by using the jog button. (See Fig. 5)

8. Once you have a good refold started, start the machine and increase the speed to find the speed at which it runs best.

(*) NOTE: For the purpose of explanation, the form is separated at the left margin in Fig. 4. This should not be separated during an actual operation.

NOTE: The guide disks shown in Fig. 2, should be set to guide the left margin from moving away from the deleaver rods.



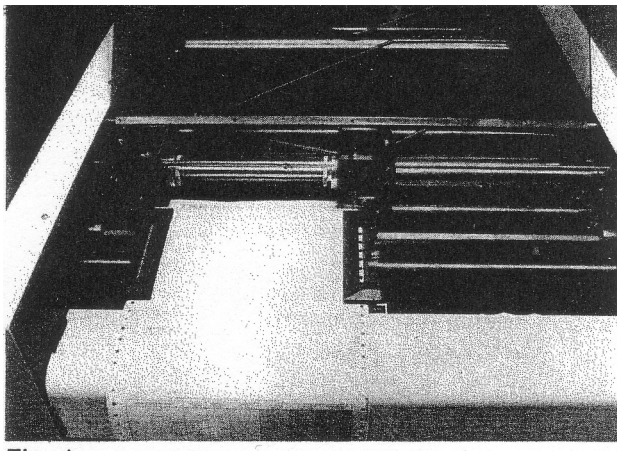


Fig. 1

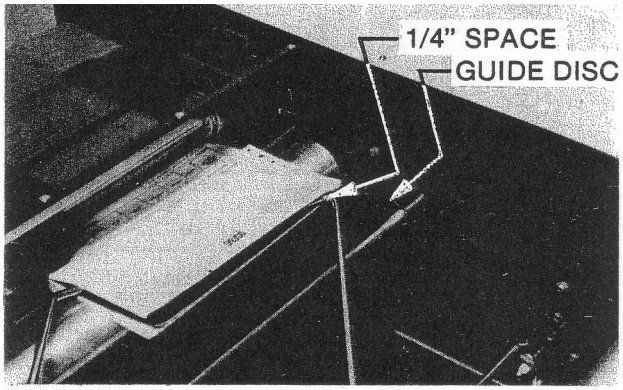


Fig. 2

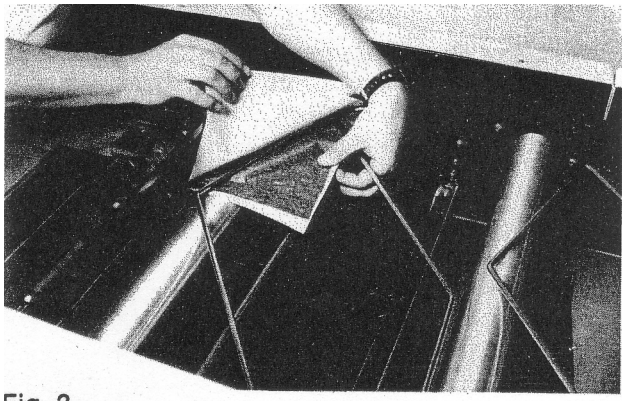


Fig. 3

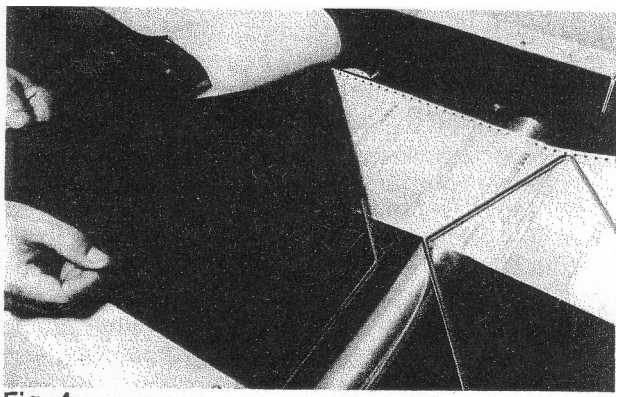


Fig. 4

SIDE DELEAVER (Continue)

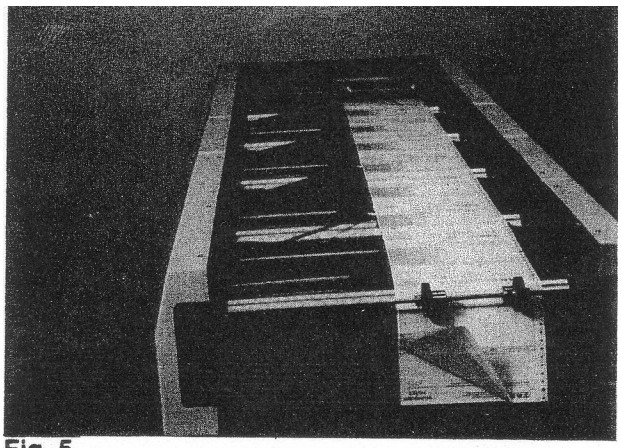


Fig. 5

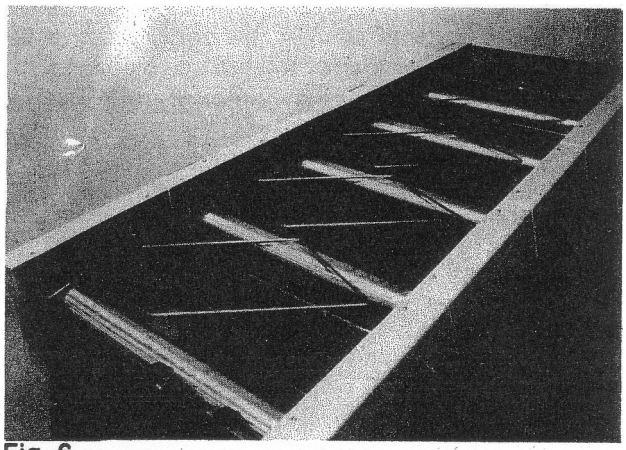


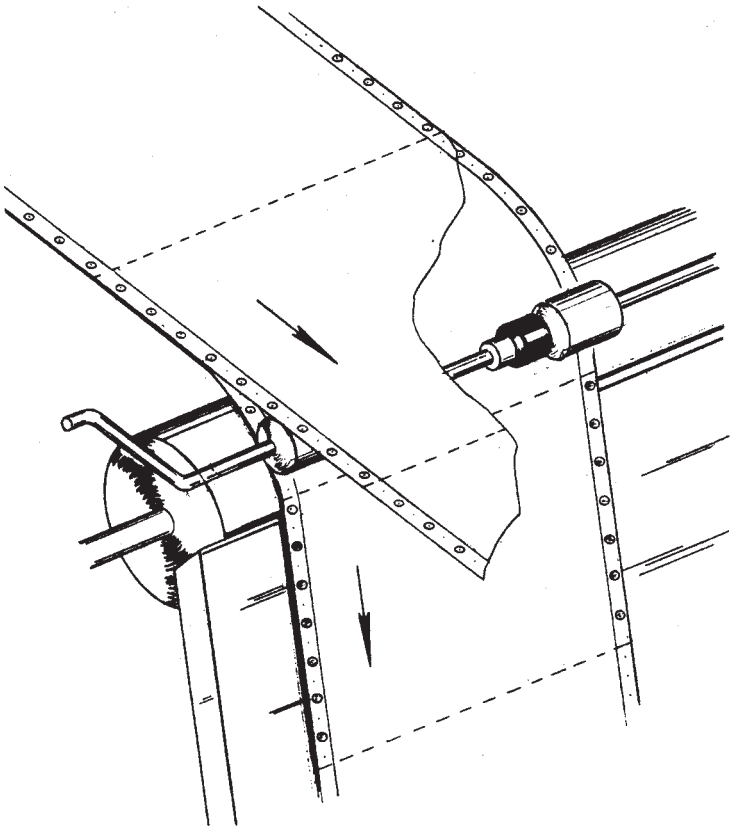
Fig. 6

PAPER CONTROL (Optional)

The Paper Control Rod is a must for carbon-less or carbon backed forms. The offset metal collar breaks the crimp while the rubber wheel forces the sheet down the chute.

When the Paper Control Rod is used, it is not necessary to use the carbon forks, unless you are using the control to break crimps on a carbontype form.

If a six part decollator is being used, production can be increased by decollating the carbon into the chute when using two, three and four part forms. The paper control is designed to split the finger lock fastenings and allow the form and carbon to flow down the chutes.

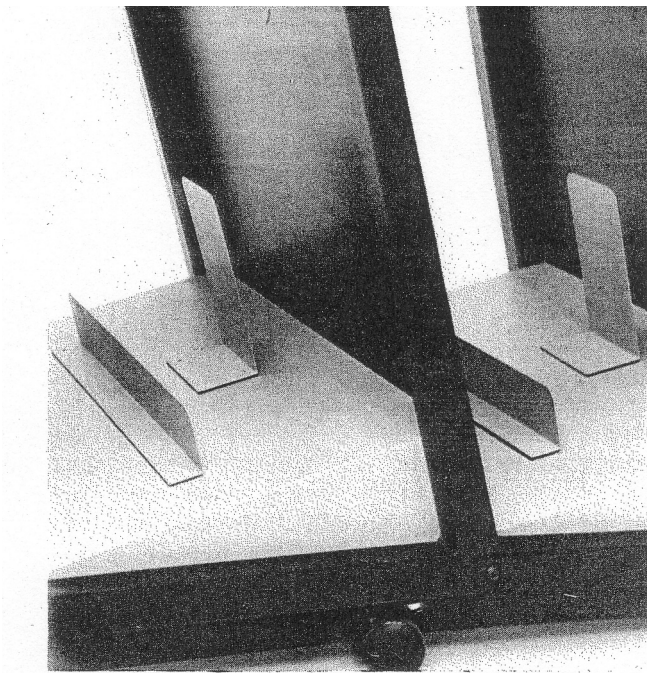


PAPER CONTROL ADJUSTMENT

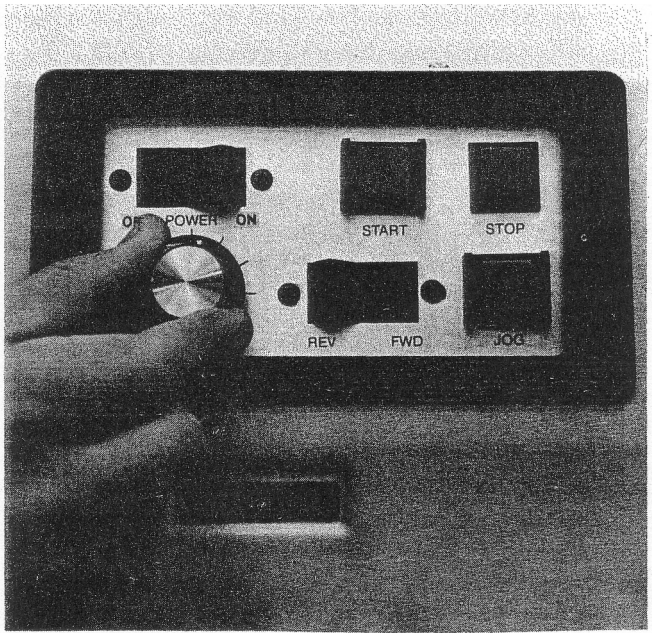
Lay the Paper Control Rods on a flat surface with the ends against a straight edge. All alien screws should be accessible in this position. Laytheform to be separated over the controls with the right margin to the right collar.

The Paper Control Rod is shipped adjusted so that it will separate both 11 and 15 inch wide forms. The large offset metal collar should be positioned under the crimp. The collar on the right side should be left as it is. The left collar should be positioned according to the sizes of the forms most commonly used.

.OPERATOR ADJUSTMENTS



Adjust the Paper Guides to the edge of the forms and the pyramid plate to about the middle of the form.



Adjust the Speed Control knob so that proper form stacking is achieved at the maximum rate.

The paper that forms are manufactured from comes in large rolls. As a result each sheet of paper in the form has a natural curve, therefore, your form may decollate better if it is turned over. The relationship of speed, airf low, etc., all help or hinder decollating. Beverycareful nottohavethe decollator sitting where cross ventilaiton of any sort disturbs the flow of air and the stacking of the form. It is possible to create a stacking problem by merely fanning the form as it moves down the chute. Keep the machine away from cold air returns, air-conditioning registers, etc.

If you are decollat-ing a form that has a tough crimp, (and you are not slitting) your decollator will work better if the tail end of the crimp hangs down when inserting the form into the decollator and the form is with printed side up.

Most 8 lb., 10 lb., and 12 lb. paper can be successfully stacked providing the speed selected is correct and there are not vertical wrinkles in the form caused by improper packing by the forms manufacturer.

The first 3 or 4 forms may not stack in some of the chutes. It is usually best to allow the machine to run and correct itself rather than trying to restart so that all chutes are stacking correctly immediately.

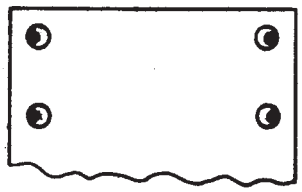
To save set-up time, decollate carbon in unused chutes on 2 or 3 part forms. Run form with carbon wax side up. Use Paper Control Rods on forms that cannot have margins slits.

STATIC ELECTRICITY. Best results are obtained if humidity is controlled, machine is well grounded and forms are allowed to “weather” to surrounding air before decollating.

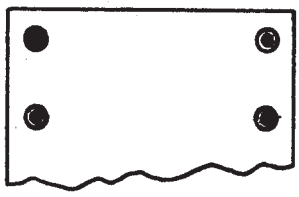
OPERATOR TROUBLESHOOTING

Feeding and Stacking problems are usually due to improper adjustment of the machine to the forms or due to non-standard or defective forms. Refer to the table below for typical feeding and stacking problems

SYMPTOM	PROBABLE CAUSE
Refolding Wrong	Vertical wrinkles in form. Speed setting wrong. Drafty work area. Paper Stacking guide adjusted wrong. Form threading wrong.
Breaking Carbon	Speed advanced too quickly. Carbon perforations too tender. Threading wrong. Carbon fork clutch set too high.
Paper Clings to Chutes	This is usually caused by static electricity. If the wall outlet is, not grounded, connect a copper wire from a water pipe, radiator, etc., to any available screw on the decollator. Scrape ,the paint at the point of attachment and use a washer under the head of the screw to secure ground wire.
Paper Runs Off Feed Pins	The tractor pinfeed is not set correctly. The Pins should be centered in the margin holes. This will allow the paper to move around slightly finding its own center.



PINS TOO FAR APART



PINS CENTERED

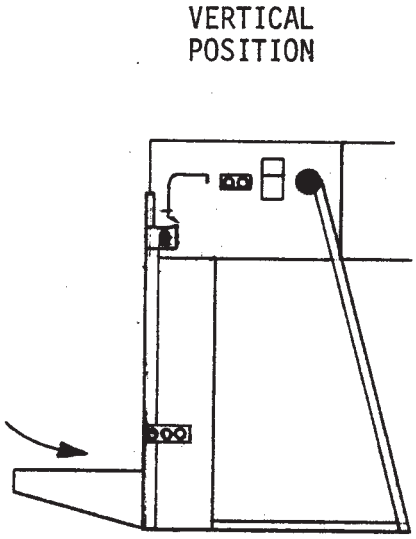
Won't run (power lamp not lit)	Power cord unplugged. Blown fuse. Outlet dead.
Won't run (power lamp on)	Safety cover interlock open. Speed control set too low.

RECOLLATION

DECOLLATING

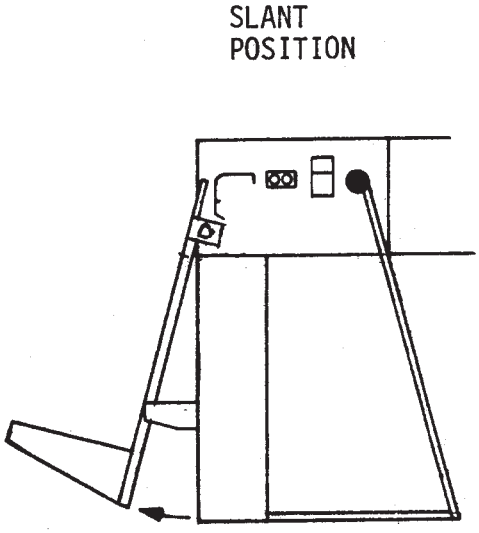
Decollating with the Recollate Feature in place:

1. The Chute may be in either the vertical or slant position. The Chute pivots from a point just beneath the Paper Table and is secured either to the end of the Infeed Table or to theAdapter Brackets by two 1/4-20 screws.



2. To position the Chute in either postion remove the 1/ 4-20 mount screws.

3. Lift up and pull out on the lower part of the Chute when positioning in the Slant Position.

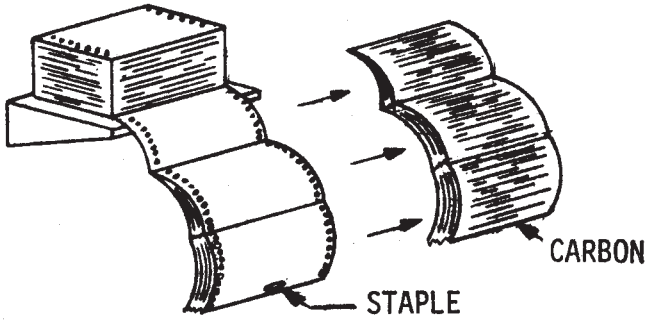


4. Lift up and push in when placing the Chute in the Vertical Position.

5. Set the Directional Switch to the Forward position.

NOTE: The switch has three positions: forward, center and reverse. In the center position the machine will be on but it will not run. The reverse position is for recollating.

6. Pull the forms up between the PaperTableand, the two Guide Rods, and secure in the Tractors. You may wish to staple the last set of forms together at the bottom to make threading for recollating easier. Remove the carbon f rom the last two or three sets of forms. Staple the form sets - together. Stop the decollator with the last set of forms in the Tractors. The carbon will have pulled out completely and the forms will remain in the Tractors ready to be recollated.



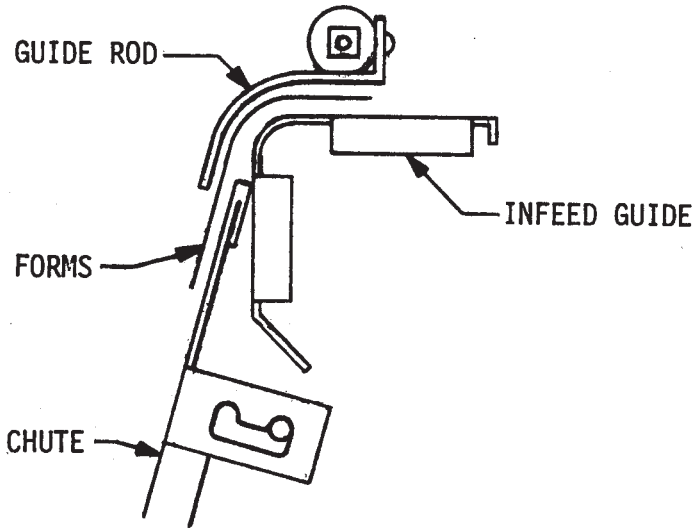
RECOLLATING

1. Remove the carbon paper from the Carbon Forks.

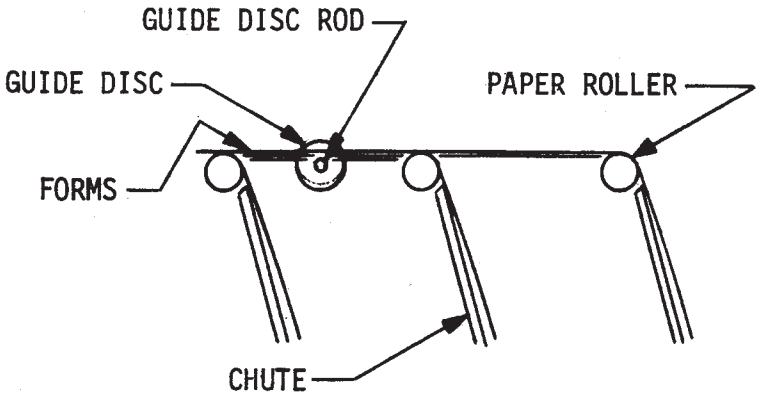
2. Set the Directional Switch to the Reverse position.

3. Remove the Outfeed Idler Assembly.

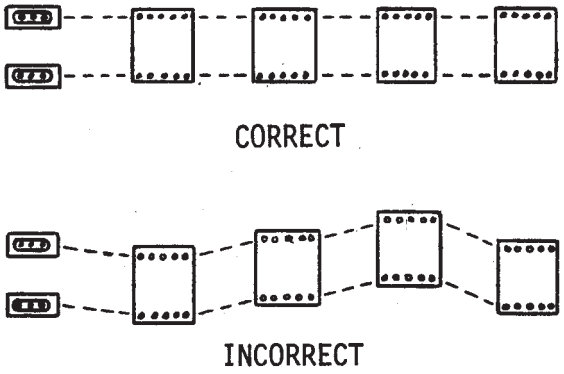
4. f a staple was not used to hold the last form set together, pull the forms back up between the chutes and the Carbon Separator Rods.



5. The forms should be threaded over each of the Guide Disc Assemblies.



6. Push the Guide Discs up against each side of the form so they are set at the exact width of the form and lined up as straight as possible with the tractors. This is important in that the holes must be in alignment before entering the Tractors. It is very helpful to have the stacks of decollated forms in the same location in each chute and not staggered. This is important because the forms must go straight up the Chutes and straight back over the Rollers into the Tractors.



7. Line up the holes in the forms and secure them in the Tractors.

8. Place the Recollating Chute in the slant position. (See steps 1~3 under Decollating with Recollate Feature in place.)

9.Place an adjustable guide on the Recollating Table Outfeed W the length of the form.

10. Turn the machine on.

11. Find the speed that the form works best at.