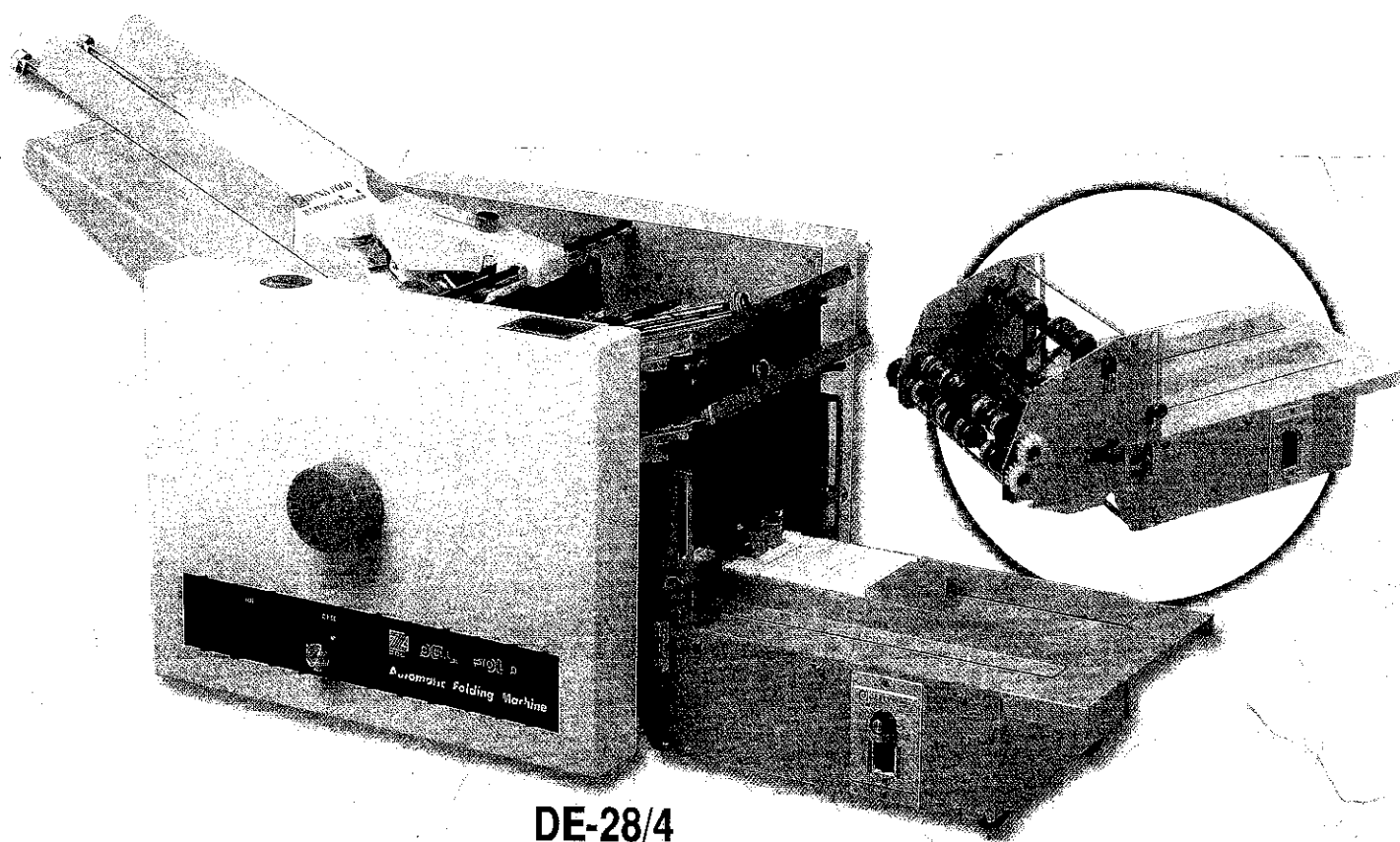


DYNAFOLD USA, INC.

Operating Instructions



DE-28/4

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Warning:

During operation and maintenance keep Hands, Hair and loose Clothing clear of moving parts. Service or Disassembly of side covers should only be done with power cord disconnected.

Introduction

Your new Dynafold pharmaceutical folder is especially useful when folding small formats of paper from a minimum of 2" X 2.5" or 7.5 X 12.6 cm. This machine offers you outstanding convenience of a tabletop model, with the capacity of a commercial grade folder at a reasonable cost.

This manual provides a ready reference, covering the functions of the unit, and the preparatory work needed for the various folding applications.

Installation and Assembly:

1. List of accessories:

Listing Model	DE-28/4
Feed table complete	1
Guide bracket	2
Folding plate	4
Vertical stacker	1
In feed roller rubber	2
Belt (PU) 300mm(12 In.)	1
Hexagon-Head screw driver	1
Operation manual	1

(Figure 1)

Be sure to operate your Pharmaceutical folder on a *STRONG TABLE* or *BASE*.

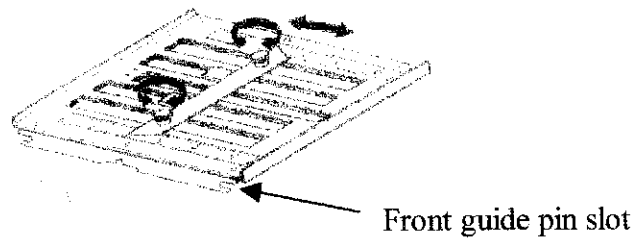
1.1 Vertical Stacker: First install the "Vertical Stacker". Insert the stacker unit onto the lower portion of the base unit taking care to align the "grooves" onto the pins and making sure it is a "snug" fit.(see figure 2, page 2)

****Please note this vertical stacker needs to be turned ON BEFORE the "main" unit power switch is turned on.****

1.2 Feed Table: The feed table installs in the same manner as the vertical stacker, in that it needs to be pressed securely onto the pegs of the main unit while keeping it at an angle. The "feed heel" mechanism should be placed up or in back position until the feed table is installed, then place it forward and latch onto the silver bar located on the main unit.

1.3 Folding Plates: All "fold plates" are installed similarly to those of the feed tray and vertical stacker. You will note that the plate has a guide bar on one side, and a groove on the other. These plates should be inserted using the "front guide

Pins ”and slide toward the folding rollers until all four pins: click” into place. (See figure 2, page 2)



(figure 2)

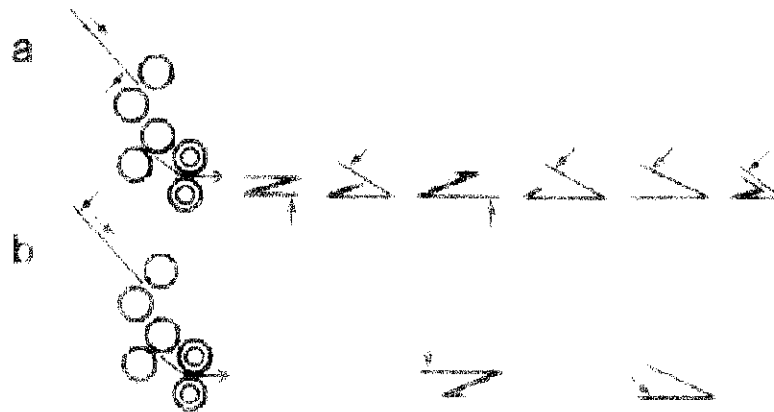
Your Dynafold Pharmaceutical folder is now assembled; Please refer to the following operations procedures.

2. Operating and Setting Instructions:

2.1 Paper feed: Always place sheets of paper to be folded with the heading side face down, ie: concealed from view. In diagram (a) the little double arrow shown with the heading side lies down from the various folding styles after the sheet has been fed thru and ejected.

Only where perforation is needed or “tear-off”, place the paper on the feed table with the wanted perforation side at the *top* end of the table. (b)

Heading Folding Styles Side



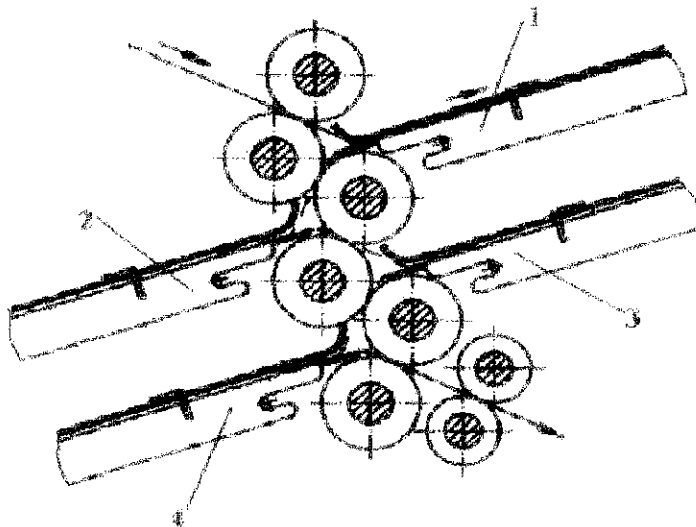
(figure a & b)

2.1A The Dynafold Pharmaceutical folder is designed to feed paper from the feed tray in a “wiping” movement. Therefore it is important to stack the paper “fanned.” Equally important is the setting of paper thickness. The “feed heel” draws from the stack of paper, the top sheet is transferred to the feed roller. The feed roller is run on pressure which is adjustable by turn the “orange” knob located on the top of the machine. This knob turns either clockwise or counter clockwise. **BEFORE operating the machine, place a sample of the sheet of paper being used into the feed tray, let the paper fall all the way to the feed roller and MANUALLY turn the roller using the orange turn wheel located on the side of the machine. Watch carefully at the “feed heel” this should turn ever so slightly and grab the paper partially into the fold roller. If it does NOT, slowly turn the orange knob on the Top of the machine while grabbing the sample paper at the same time. The paper should be placed into the feed tray and should drop freely down to the feed roller. If it does not continue to turn the orange adjustment knob until it does. (Please refer to this portion of the installation C.D.) This arrangement ensures that the feed roller will not leave ‘drag marks’ on the sheet, when it runs thru on high speed. **THIS IS AN IMPORTANT STEP BEFORE OPERATING THE MACHINE. ** (see also figure 5.2 Gap Feed)

3. Understanding The Folding System:

3.1 The Dynafold Pharmaceutical folder works on the folding plate (pocket) system. The following is a description of the folding process for the various styles of folds.

Folding Arranged to Apply Designed Style Fold



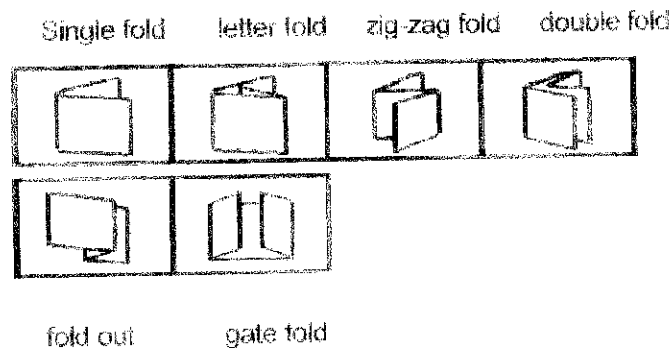
(Figure 3)

*These explanations will ensure you to carry out the desired setting for any of the folds without extensive trial runs. *

Zig-Zag Fold:

The feeder takes the sheet between the first pair of fold rollers, then drives the paper to the first folding plate (plate 1), until it hits up against the adjustment stop. Then as the rear part of the paper is still advancing, a loop forms around the paper and the roller, and the sheet of paper is then carried to the second stop plate, which is plate 3. After achieving this maneuver the folded sheet is applied by pressure and then transferred to the conveyor belt and thru the vertical stacker.

Following is a diagram:



(Figure 4)

The diagram above shows the fold plates (pockets) 1 and 3 set at $\frac{1}{3}$ rd. the overall length of the paper.

For a double fold, the first plate is set at $\frac{1}{2}$ the overall length of the paper and the second plate to $\frac{1}{2}$ of the first setting.

For a letter fold, the first folding plate (pocket) is set to $\frac{2}{3}$ rds. The overall length of paper and the second plate at $\frac{1}{3}$ rd. the overall length of paper.

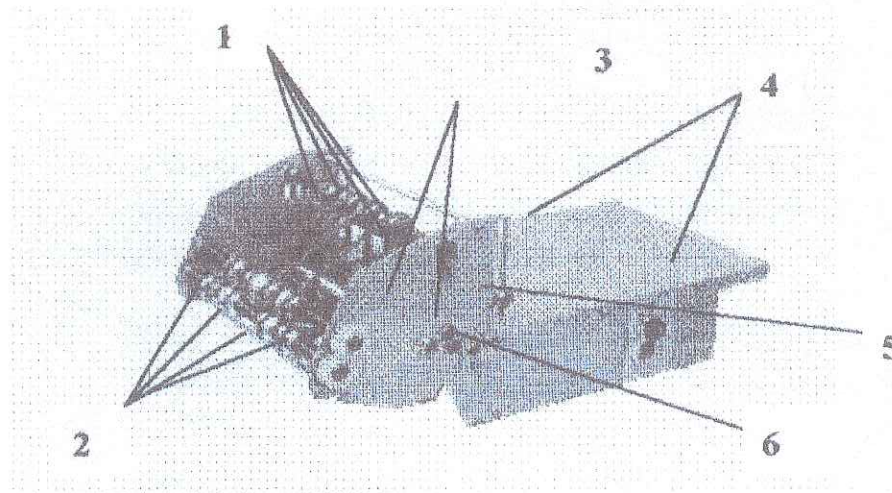
To produce a single fold, the folding plate is set at $\frac{1}{2}$ the overall length of the paper and all the other folding plates are taken out and turned around so that the paper will never enter into the folding plates (pockets).

Each time the machine is set up and ready for a different fold, it is advisable to run a few sheets through as a trial run, so that any fine tuning can be made.
(See page 11. for other fold settings)

Once you have completed the plate setting, you should NOT alter machine speed again. This may change the length.

4. Understanding the Vertical Stacker Operation:

4.1 Setting of vertical stacker to desired fold:



(figure 5)

A sample fold is made after the vertical stacker has been installed. When the folded sheet leaves the folding plates (pockets), it is gripped by the ejector rollers and then transferred to the conveyor belt of the vertical stacker.

**** The following should be observed****

The ejector rollers of the vertical stacker should be adjusted in such a way that the sheet of folded paper fits in the middle evenly on both sides. This is to ensure that the paper will be grabbed correctly and transferred to the vertical stacker properly.
(See figure 5 #1)

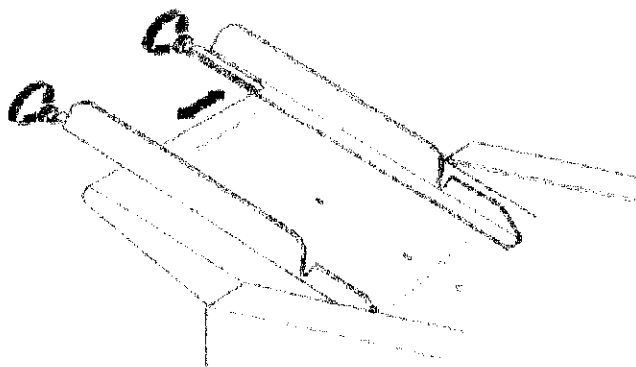
These ejector rollers can be adjusted easily using an "Allen-wrench" or the hexagon-head screw driver provided. The two "outer" belts should fit the folded piece of paper on the outside edges.

The finished folded pieces of paper should exit onto the vertical stacker leaving a very small gap between the top of the exit rollers and the actual vertical tray.

5.0 Machine Operation:

5.1 Feed Guides:

To shift the feed guides, turn the knobs at the end of the feed stacking tray about 1 or 2 turns. Lightly move the paper guides and set according to the width of the paper. Then turn the knobs and tighten.

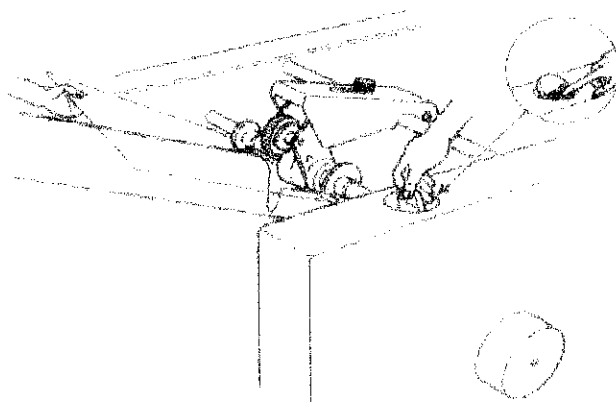


(See figure 6)

5.2 Gap Feed:

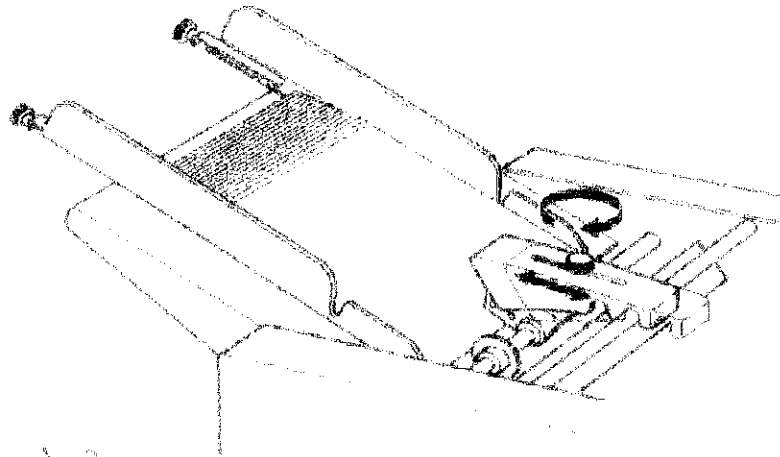
Now set the gap between the feed roller and the pressure roller to the paper thickness with the orange knob at the top of the main unit.

To reduce the gap, turn the disk clockwise until you can feel the rollers slightly pulling the sheet of paper. Do not insert the sheet too far, or the spin dial may seize it. If the pull of the paper is too strong, the gap is too narrow. Be sure to have the machine turned on while doing this exercise. (See figure 7)



(See figure 7)

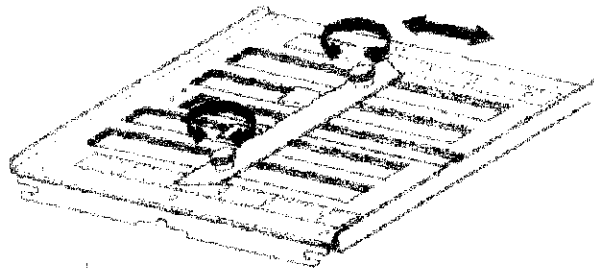
5.3 Paper feeder guides:



(figure 8)

Now set pressure of roller on feed with the knurled nut at top and lower feeder into working position figure 8

5.4 Four Plates:



(figure 9)

Set the four plates to desired fold according to figure 9.
Set paper to correct height at the vertical stacker.

5.5 The Dynafold folder is now ready to run. But before you switch on, please note the following points.

A change of speed while the machine is running will also change the fold applied. This may already happen as you start the machine, since it needs a little time to run up to speed.

For this reason, it is advisable to place your left hand on the stack before switching on the stop sheet in feed. Release the paper only when the machine has run up to the selected speed.

The same applies when you switch off and a number of sheets remaining on the feed table. Again: hold them down to stop the feed, only them switch off.

In the way, the whole run from first to last sheet will be evenly folded.

5.6 Eliminating a diagonal fold

Mark the first sheet you run through the machine with a cross on the top side, so that you know in which direction it has been fed. If it leaves the machine with the fold diagonally shifted from the straighten from the straight line, first fold it by hand to an even more accurate diagonally offset from the straight, then place it again on the feed table in the correct running direction. Since the fold always runs parallel to the spindles, you must now turn the sheet until the next trial fold runs exactly parallel to the spindles. The next sheet will already show an improvement. Possibly, you may have to make another trial fold, continuing with the sheet alignment until the diagonal shift is completely corrected.

5.7 Setting to pointed tips

Where the sheet end has pointed tips, slacken the plate stop nut and align the stop on the paper end.

5.8 Correction minor fold variations

Once you have set the plate stops to the desired style of fold by the scales, it should not be necessary to equalize minor fold variations provided the running speed is not markedly change after setting up.

5.9 Replenishing the paper stack

When feed table, automatic paper feed, plates and delivery have been set to the required fold, place the paper stack on the table between 100 or 300 sheets, depending on paper grade, evenly fanned out. Align the stack at the sides.

To avoid the last sheet of a stack being drawn together under rollers and spindles, it is advisable to stick a single sheet with adhesive tape to the table. Place the fanned stack on top, holding it in position with your left hand and guiding it with the right side the stack up to the feed roller working range so that the fanning will not collapse again. As the top sheet must be sized first, slide it closer to the feeder.

5.10 Replenishing the stack

You can top up the stack while the machine is running I two ways:

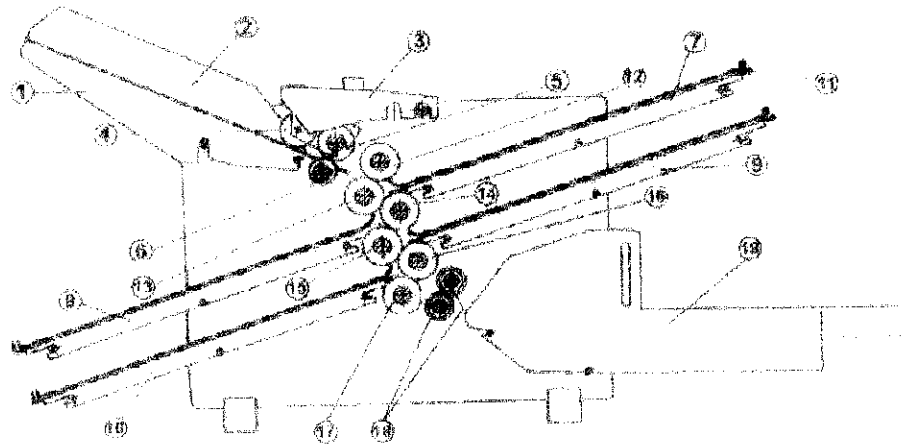
a) When only a few sheets are left, side the new stack under the last sheet and the machine can run on without a break.

b) Alternately, you can let the last sheet be drawn in and then place a newly prepared stack on the table, This briefly brake the machine run, but negligible time loss not reduce average output.

Faults, Cause and Remedy

Faults	Cause	Remedy
Intermittent and Irregular feed	1. Feed bracket set too narrow 2. Gap between feed	1. Set with a more play 2. Increase gap with setting disk
	Pressure roller too narrow 3. In feed roller pressure insufficient or roller warp 4. Feeder set too tight 5. Feeder spindle drive belt worn	3. Increase pressure with Knurled nut on feeder or replace roller 4. Shift bearing rings outwards a little way 5. Replace belt
Very light weight paper grade becomes creased	1. In deed roller pressure too strong 2. Gap between feed and pressure roller too narrow 3. Speed too high 4. Paper runs at an angle 5. Pressure of first pair of fold rollers too strong or uneven	1. Reduce with Knurled nut 2. Increase gap with setting disk 3. Reduce speed 4. Correct with guides 5. Have pressure and parallel fold roller alignment set by our service (fold roller arrangement is suitable for all paper grades in general use, but for some very thin papers, fold roller pressure can be altered)
Two or more sheets drawn in together The folding machine has Stopped	1. Gap between feed and pressure 2. Paper jam, the blocking prevention has switched	1. Narrow gap with setting disk 2. Clear paper jam. To restart the machine, it has to be switched off and then switched on again
Sheets jam between delivery belt and paper stop	1. Paper stop height too short 2. Delivery belt feed irregular	1. Correct height 2. Correct with delivery belt (see section on vertical stacker)







Machine Main Assembly Components:




- | | | |
|-------------------------|-----------------------|----------------------|
| 1. Feed table | 2. Feed guide | 3. Feeder |
| 4. Infeed roller rubber | 5. Feed roller | 6. Pressure roller |
| 7. Folding plate (1) | 8. Folding plate (2) | 9. Folding plate (3) |
| 10. Folding plate (4) | 11. Folding guide bar | 12. Fold roller (1) |
| 13. Fold roller (2) | 14. Fold roller (3) | 15. Fold roller (4) |
| 16. Fold roller (5) | 17. Fold roller (6) | 18. Delivery roller |
| 19. Vertical stacker | | |

(figure 11)

Table Folds:

Table 8.5 x 11 Paper	Plate 1		Plate 3		Plate 2		Plate 4	
	CM	Inch	CM	Inch	CM	Inch	CM	Inch
	14.0	5.5	*	*	*	*	*	*
	14.0	5.5	7.0	2.75	*	*	*	*
	18.5	7.25	*	*	9.5	3.75	*	*
	18.5	7.25	9.5	3.75	*	*	*	*
	7.0	2.75	14.0	5.5	*	*	*	*
	21.0	8.25	7.0	2.75	*	*	*	*

(figure 12)

Table 3.0 x 5.0 Paper	Plate 1		Plate 3		Plate 2		Plate 4	
	CM	Inch	CM	Inch	CM	Inch	CM	Inch
	10.0	4.0	7.5	3.0	5.0	2.0	2.5	1.0

(figure 13)



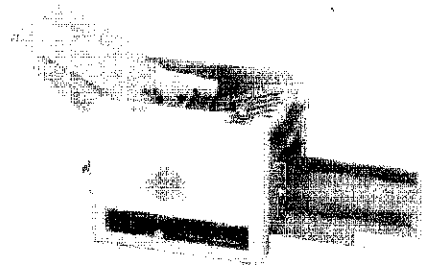
Table 4.25 x 5.5 Paper	Plate 1		Plate 3	
	CM	Inch	CM	Inch
	7.0	2.75	3.5	1.37

Table 5.5 x 8.5 Paper	Plate 1		Plate 3	
	CM	Inch	CM	Inch
	10.7	4.25	5.4	2.125

(figure 14)



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