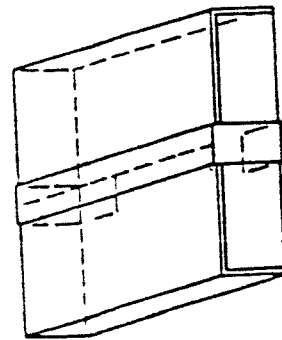
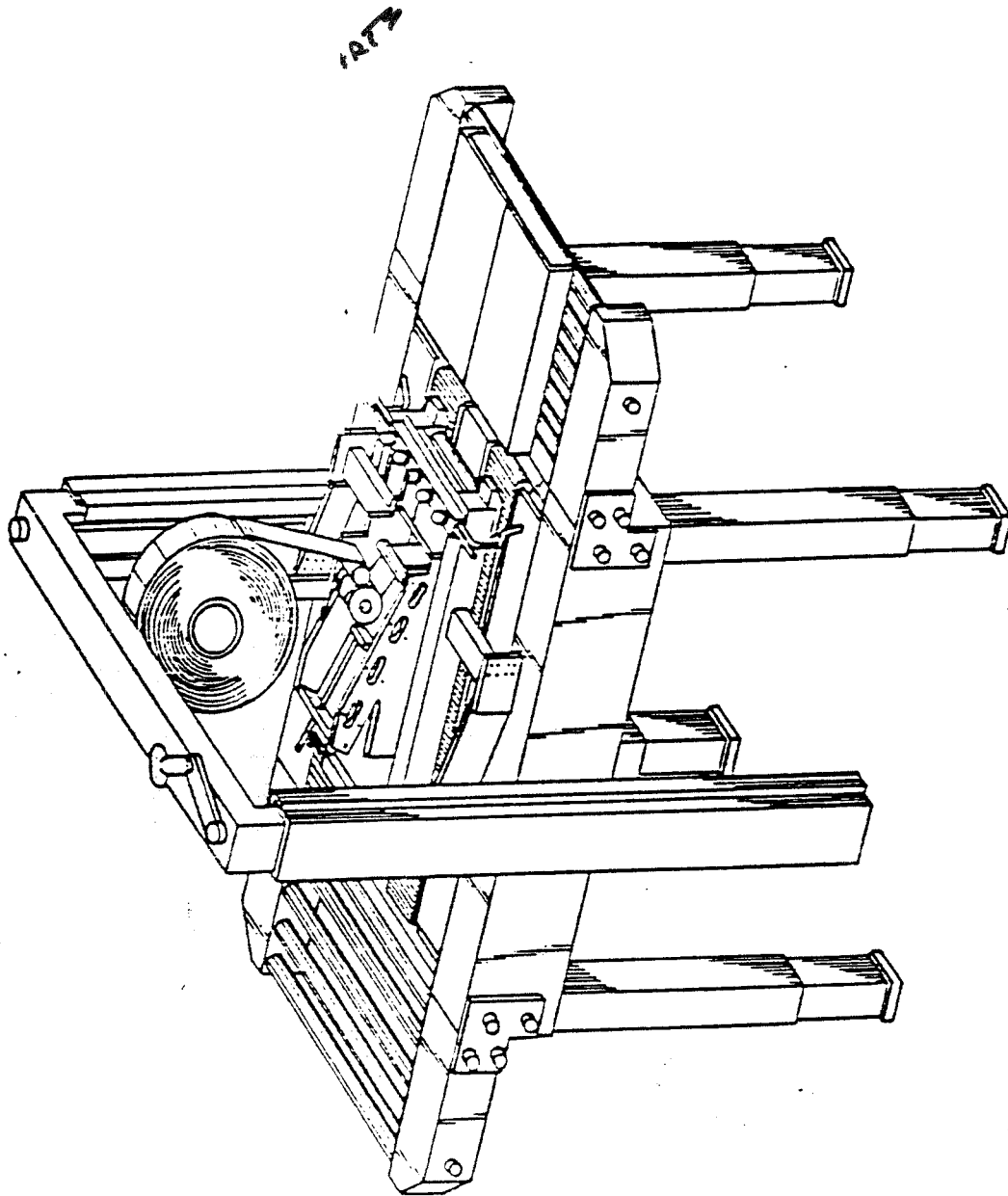
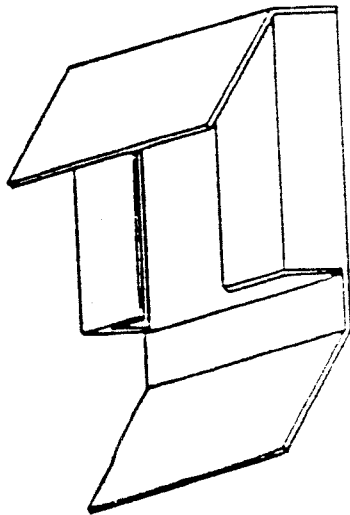


3M-MATIC



23A SPECIALTY CASE SEALER

MODEL 18800

23A SPECIALTY BOX SEALER

Model # 18800

23A Description

Designed to apply and buff down Scotch Brand box sealing tapes to seal one, two and three piece folders. Such boxes are commonly known as one-piece folders (book-fold) cartons and other box flats that fold up around the product. Most products are somewhat flat, such as books, plaques, pictures, plates, etc. These cartons require a special application whereas a top seam only is present requiring a top head application only and tape formed as illustrated.

Air Nozzles

A standard 3M AccuGlide taping head is used to apply the tape. A few special features were added to the basic head that are required. They are:

1. One air jet nozzle adjusted at factory, as directed to blow air toward the bottom surface of the applying block. (Film tapes build up static electricity.) The air jet blows the tape away from the block to keep the front tape leg under control and in downward condition. You will see the tape, hanging down, and fluttering by the air turbulence. The air nozzle has a flow control valve with a screw that has been pre-adjusted. It requires very little continuous air to perform its duties. The air for the air nozzle is provided by the main air on/off knob of the box sealer. The air nozzle itself is on a ball swivel that has been directed toward the roller. If by chance the nozzle gets bumped, you can readjust by finger.
2. Another air nozzle is mounted at the back end of the AccuGlide head where it is directed to make sure the rear tape leg, after cut-off, is in the vertical condition at the rear of the box in time for wipe roller (from buffing apparatus) to roll it onto the box. This has also been preadjusted at the factory. Should it need adjustment, it is on a swivel and has its own flow control valve and screw adjustment.

Head Restriction Attachment

This attachment to the standard AccuGlide head is required for boxes under 2 3/4" height. The AccuGlide head normally applies a "C" clip of tape with 2 3/4" tape legs. For the book-fold boxes, the heights are under 2 3/4". This requires restricting the applying roller assembly back so shallow boxes will impact the adhesive side of the tape against the applying block. The 2 3/4" tape legs will still be present on both front and back of the carton. This extra tape will be wiped under the box as illustrated above by the lower buffing apparatus. The shorter the box is, the more restricting of the applying roller requires. This also means more of the 2 3/4" tape leg will be wiped on the underside. As the box increases in height more of the 2 3/4" leg available will be on end panels and less wiped underside.

**3M-MATIC 23A SPECIALTY MACHINE
SPECIFICATIONS**

Carton Sizes: Width 6 3/4" min. 19 1/2" max.
Height 1/2" min. 2 1/2" max.
Length N/A

Air Requirement - 70 PSI clean dry air
Compressor - 1 HP
Electric - 110 v, 60 HZ single phase

Note: For cartons outside of 23A specifications special modifications from 3M can be performed and purchased over the basic 23A standard price. Contact your 3M sales representative with your requirements.

Head Restriction Attachment - cont.

The restriction attachment has a thumb knob locking the collar to the hex shaft from a dimple-indented flat side. The shaft has markings enabling adjustment and locking in place for box heights in 1/4" increments in height. Example #1 marking on shaft means to lock collar edge on marking to seal 1" high box, .05 increment for 1/2" high box, etc. For sealing regular size cartons, the collar would be locked on shaft at the 3.5 marker, thus allowing full buffing and applying stroke by the AccuGlide head.

Note - See illustration

Buffing Apparatus

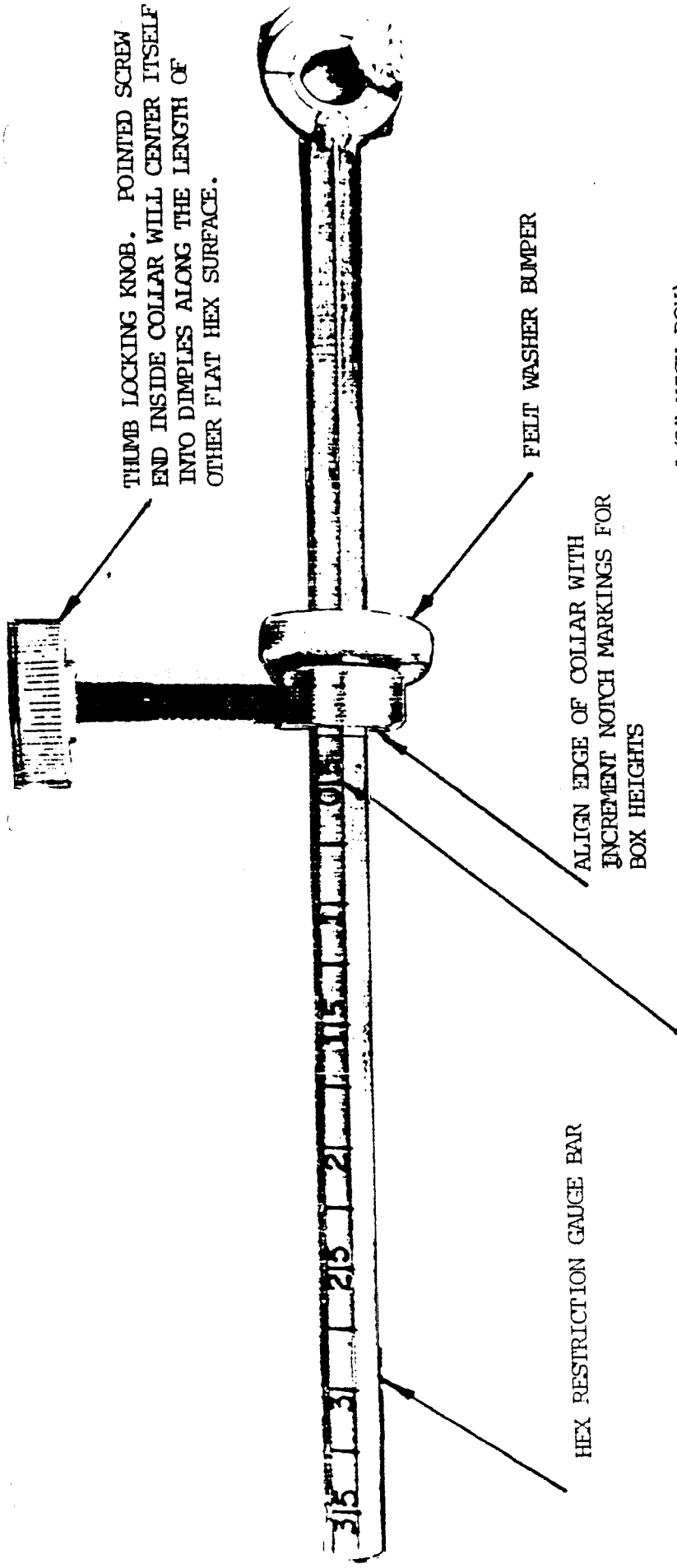
Designed for the purpose of wiping (buffing) under the excess tape leg created by the previously described top head. The apparatus is air operated and actuates in two directions. There is one switch that actuates both motions. The buffing sequence is illustrated in this section.

The buffing apparatus is removable from the frame of the machine by:

1. Disconnect or turn off main air supply to the machine.
2. Push in red ring at same time pulling out the 1/2" OD air line at the regulator end of line (not apparatus end).
3. Apparatus will lift out easily by tipping up back end to clear air cylinder from cavity.
4. A standard AccuGlide box sealing head is capable of dropping in to seal RSC cartons. Note - no air is needed for this function.
5. To reinstall buffing apparatus, tip air cylinder in cavity guiding in the 1/2" OD airline to prevent pinching or crimping and rest unit into place.
6. Reconnect the airline end into regulator area fitting just by pushing the end into the red ring area. It will seal itself.
7. Turn air supply on.

Flow Control Valves on Air Cylinder

These are adjustable dials, also pre-adjusted prior to machine shipment. They are located at front (rod end) and back of the air cylinder on buffing apparatus. They regulate the amount of air going into the air cylinder when fired to create the speed at which the wiping roller moves either down or up in its curved track. The first actuation of the roller from rest position is opposite than direction of the box movement. This motion is air regulated slower. The second actuation, roller coming up the slot to wipe the trailing leg, is air actuated faster to accelerate faster than the belt speed 75 ft/min thus wiping under the trailing leg before box discharge. Refrain from adjusting these dials or actuation timing can be disrupted (wiping too late or too early).



THUMB LOCKING KNOB. POINTED SCREW
 END INSIDE COLLAR WILL CENTER ITSELF
 INTO DIMPLES ALONG THE LENGTH OF
 OTHER FLAT HEX SURFACE.

FELT WASHER BUMPER

ALIGN EDGE OF COLLAR WITH
 INCREMENT NOTCH MARKINGS FOR
 BOX HEIGHTS

HEX RESTRICTION GAUGE BAR

INCREMENTS OF BOX HEIGHTS (EXAMPLE .5 OR 1/2" HIGH BOX)

ADJUST FOR BOXES OF HEIGHT INCREMENTS BELOW 2 3/4" INCH (ONE PIECE FOLDERS TOP SEAL ONLY)
 FOR SEALING BOXES 2 3/4" OR HIGHER. LOCK COLLAR WITH THUMB KNOB AT THE 3.5 LOCATION ON
 HEX BAR TO ALLOW ACCUGLIDE HEAD TO FUNCTION IN NORMAL FULL APPLYING AND BUFFING STROKE.

UPPER ACCUGLIDE HEAD RESTRICTION ATTACHMENT ON 23A SPECIALTY MACHINE

Side Guides

SN # _____ and above

Side guides are adjustable for width of cartons. Refer to 22A machine manual. Special rod type side guides would be required where cartons may be shallow, but also narrower than 6-3/4" wide. Requirement using these side-guides should be determined during sale of equipment for factory installation.

Taping Head Adjustments

The AccuGlide™ taping head has standard pre-adjustments that may be required. Refer to 22A manual to make such adjustments like main spring pressure for stronger or weaker tape buffing pressure. This would be done if boxes are solid or over-packed and need a tight seal or under-packed and weaker boxes requiring less pressure.

Replacement Parts

Refer to the 22A manual to reference and order replacement parts for your Specialty 23A Box Sealer. The standard 11-digit stock numbers are available through the 3M spare parts department. Other parts, not identified in that manual, mostly pertaining to the buffing apparatus, drive belts, pneumatic components, airlines, air jet, fittings, head restriction attachment, are available from 3M on special order basis. Contact your 3M sales representative, distributor or 3M branch coordinator for assistance in ordering these parts.

Belts

The 23A is equipped with special high-traction drive belts to pull the box through the 23A with very little downward pressure. These belts are available on a special order basis as well as parts described above from part view drawing #800055. All special parts would use a special generic stock number of 70-0702-7062-7. Use part identification by name and part number. Special parts come from 3M, ED & DS Department.

Example: 1 Each 70-0702-7062-7 23A Drive Belt

1. CARTON ENTERS BUFFING APPARATUS BEING CONVEYED BY 3M-MATIC BOX SEALER DRIVE SYSTEM.
2. TAPE HAS BEEN PREVIOUSLY APPLIED BY A MODIFIED ACCUGLIDE™ UPPER TAPING HEAD IN THE FORM OF A "C" CLIP OF TAPE (LEGS BEING VERTICALLY DOWN).
3. WIPING APPARATUS SHOWN IN WAITING POSITION.

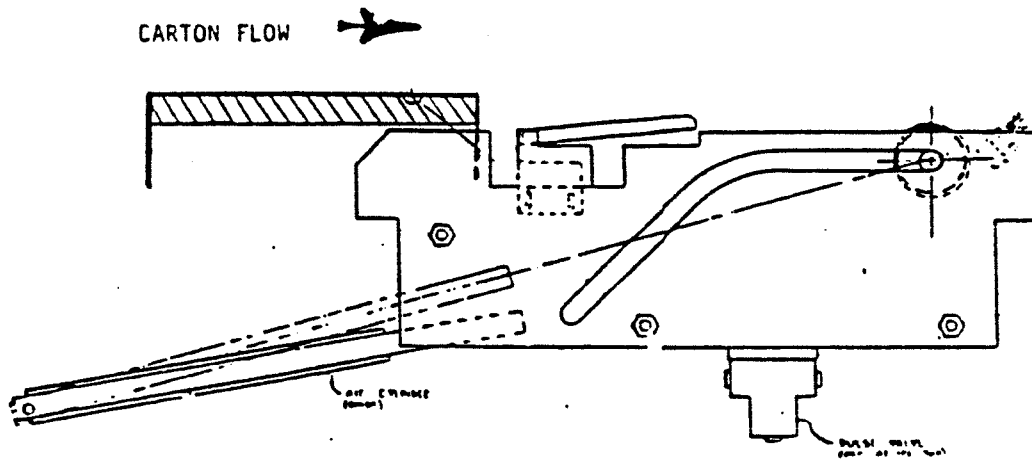


FIGURE #1

1. CARTON ACTUATES AIR SWITCH.
2. BUFFING ROLLER RETRACTS BY AIR CYLINDER, IN OPPOSITE DIRECTION OF THE CARTON FLOW, BUFFING FRONT TAPE LEG UNDER THE CARTON FRONT.

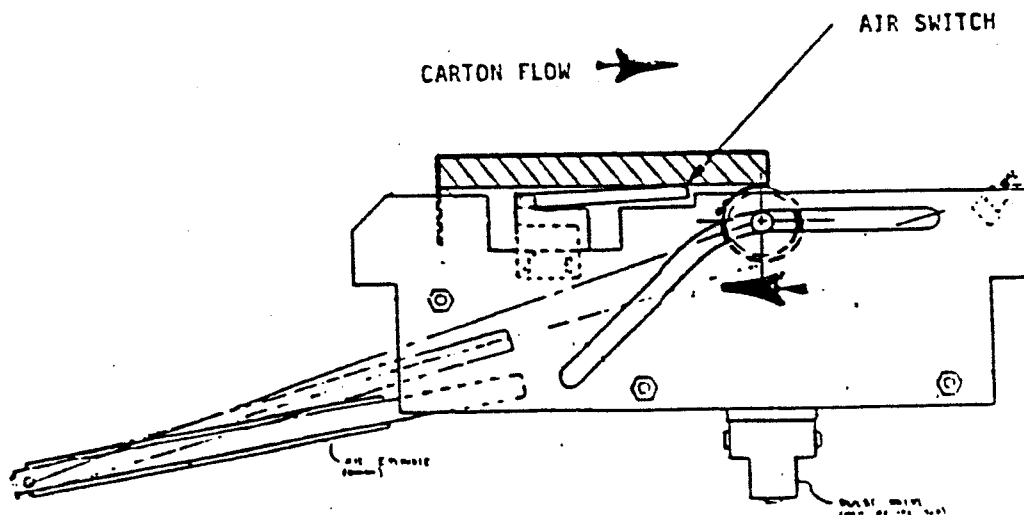


FIGURE #2

1. BUFFING ROLLER CONTINUES DOWN CURVED CAM TRACK AND RESTS AT THE BOTTOM OF THE TRACK.
2. CARTON CONTINUES NON-STOP IN DIRECTION OF CARTON FLOW.

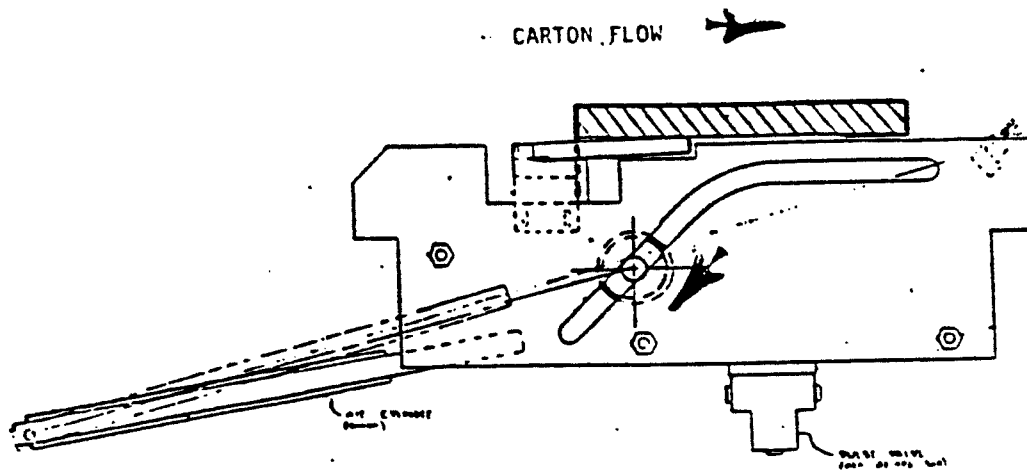


FIGURE #3

1. BACK OF THE CARTON FALLS OFF THE AIR SWITCH PADDLE CAUSING THE AIR CYLINDER TO MOVE BUFFING ROLLER UP THE CAM TRACK IN DIRECTION OF CARTON FLOW.
2. THE REAR TAPE LEG WILL BE AHEAD OF THE BUFFING ROLLER BEFORE CARTON FALLS OFF THE AIR SWITCH.

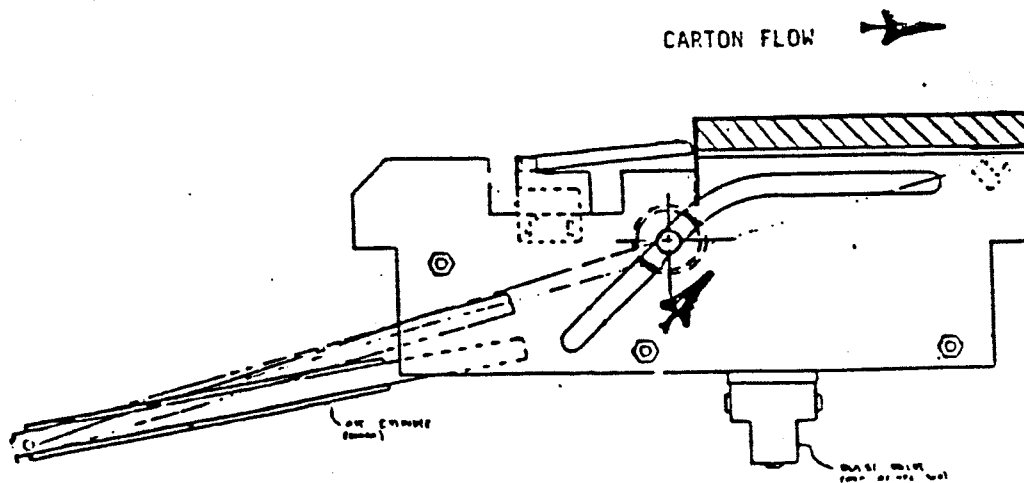
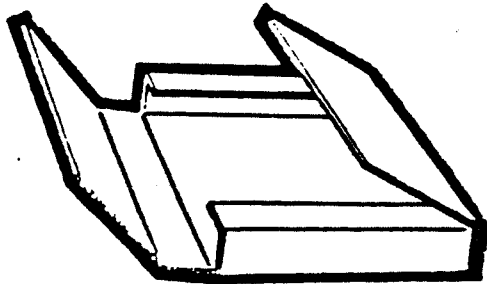
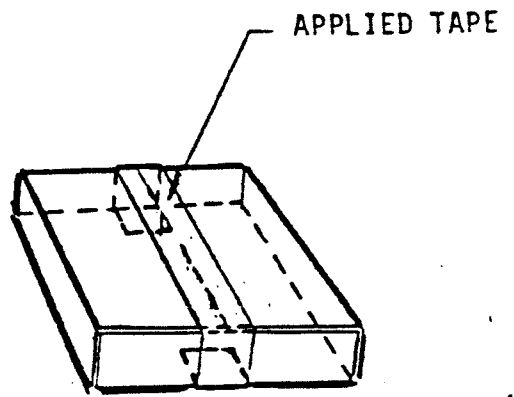


FIGURE #4

One Piece Folder



OPEN



CLOSED AND SEALED

BUFFING APPARATUS FOR ONE-PIECE FOLDER CARTONS
USED WITH MODIFIED 3M-MATIC CARTON SEALER AND
ACCUGLIDE™ TOP TAPING HEAD.

