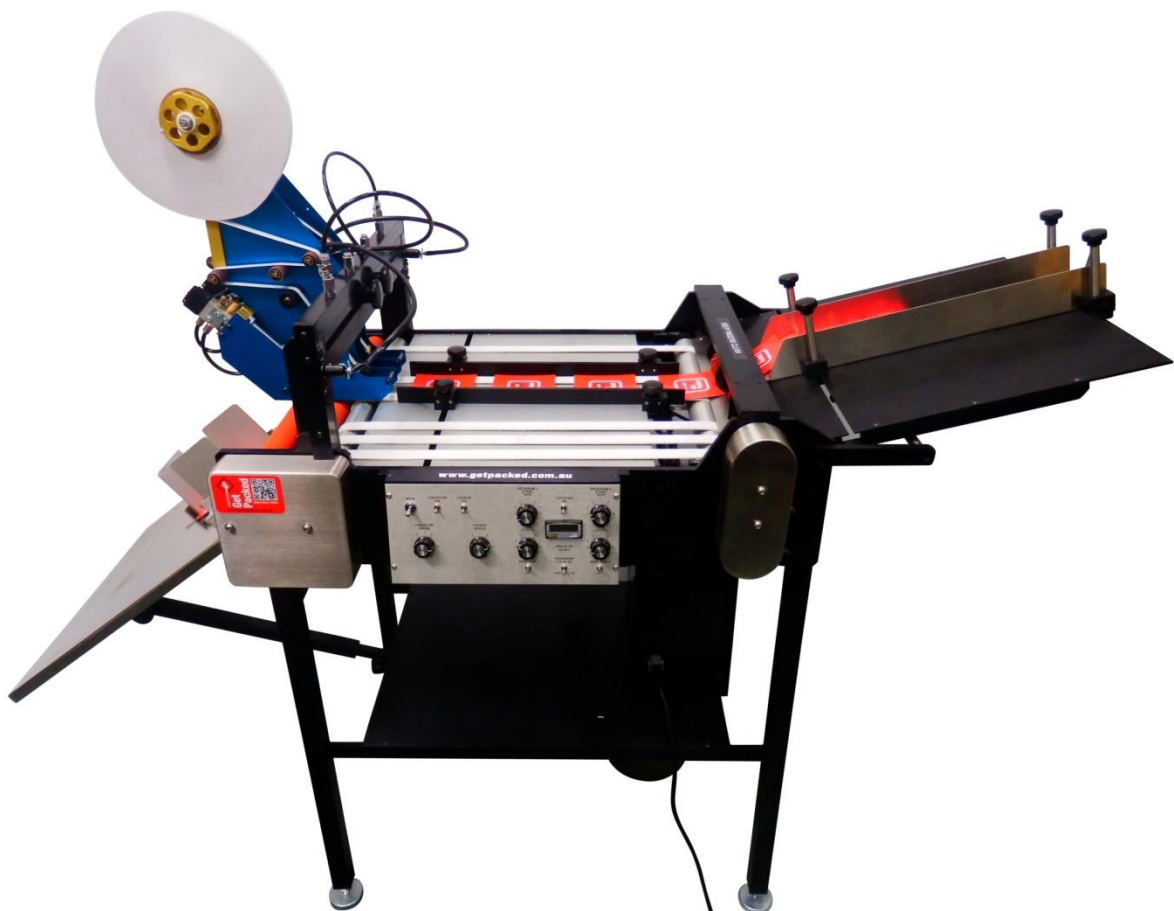# TAPE APPLYING SYSTEMS

ATM-460 TAPER / FEEDER

2015

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AUTOMATIC TAPING MACHINE

ATM-460 TAPE SYSTEM OPERATION GUIDE

2015

SUBJECT	Operation Instructions
APPLICABILITY	ATM-460 Automatic Taping Machine

SUMMARY

Thank you for choosing the ATM-460 Combo.
This document is an instructional guide for your ATM tape application system. All ATM Tape application systems are designed to be easy to learn and operate. If you have any questions, please call us on (02) 9452 3566, or sales@getpacked.com.au.

SPECIAL NOTE

Each system, when sold, comes standard with 2 metering units. More units are available upon request. Taping Systems and/or tape heads that handle tape widths of 48mm and 72mm are available.

Prior to use, please make sure the following items are included in the packing crate:

Qty	Packing Crate Items
2	Tape Metering units (24mm) *
3	Stacker Guides (with magnetic base)
2	Feeder Guides (for Feed Table)
2	Product Guides (for conveyor Table)
1	Air Quick Disconnect
1	2.3mm Metering Unit Height Adjustment Shim
1	3mm Metering Unit Height Adjustment Shim
20	Setting Template Guide (make copies for future use)

* Metering units may vary according to order requirements.

Operational Requirements	Items
Air Supply	60 psi
Electrical Supply	240 volt outlet
Equipment	ATM Tape Application System
Tape	12mm to 24mm tape

IMPORTANT   Please keep the system clean and free of build-up to ensure a trouble free operation.

ATM-460 TAPE SYSTEM OPERATION GUIDE

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SYSTEM CONTROL OVERVIEW

(In the order the controls appear on the control panel from left to right)

- **Conveyor Power Switch**

Turns conveyor off or on.

- **Feeder Power Switch**

Turns the feeder off or on.

- **Conveyor Speed**

Adjusts the conveyor speed up to 36 metres per minute.

- **Feeder Speed**

The Feeder speed can be adjusted up to 33 metres per minute..

Note: If conveyor speed is less than maximum speed, feeder speed should also be less than maximum speed. Change in conveyor speed will affect program.

- **Counter Reset**

The product counter may be reset to zero by pushing reset button located just below counter readout.

- **Counter Switch**

Turns the counter off or on.

Controls Column For Program 1

- **Start Tape Adjustment Knob**

There are two start tape adjustments, one for program 1 and one for program 2. These determine the start of the application of the tape. The lower the number setting, the closer to the leading edge of your product. It should be noted that the start time, if set to low, will begin tape application prior to product arrival at Tape Apply Roller and cause product to wrap around Combo Feed Roller.

- **Tape Length Adjustment Knob**

There are two tape length adjustments, one for program 1 and one for program 2. These determine the length of time the metering units are in the apply mode. The lower the number, the less the apply time. The higher the number, the longer the apply time. It should be noted that in some cases the apply time will be longer than the product to be taped. It is best to set up the machine prior to production runs using spare products of the same size and composition as required in the production run.

End of controls Column for Program 1

- **Programs Coupled Switch**

Couples or uncouples the metering units (for four corner spotting prior to production runs using spare products of same size and composition as required in production run.

- **Main Switch**

Turns the ATM-460 off or on.

Controls Column For Program 2

- See Program 1 controls column

ATM-460 TAPE SYSTEM OPERATION GUIDE

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SET UP PROCEDURE

Steps	Tasks
1	Turn Main Switch on
2	Turn Conveyor Switch on
3	Adjust Conveyor speed
4	Turn Feeder Switch on
5	Adjust Feeder Speed to obtain 12-24mm spacing between products on conveyor.
6	Set Programs Coupled Switch to Programs Uncoupled.
7	Set Start Tape to begin applying tape at desired start position on product. (The lower the setting, the closer the tape will start at the leading edge of your product.)
8	Set Tape Length

THREADING AND INSTALLING THE TAPE METERING UNIT
Note: All systems will accommodate rolls with internal or external adhesive

Steps	Tasks
1	Install the tape onto the unwind. (To thread the tape metering unit always have the adhesive facing the operation when coming off the roll.)
2	Unroll the tape to the forward roller.
3	Go back to the tension arm and down to the 3-position tape guide.
4	Rotate the 3-position tape guide to the size closest to the size of your tape.
5	Drop the tape into the metering unit to the tape shoe.
6	Adjust tape guides to the size of the tape you are running.
7	Insert the tape into the shoe with the tape shoe in apply mode.
8	Pull the tape through the shoe and out the bottom, making sure it (tape) is between the tape apply roller and the Teflon covered wire.
9	Push the tape shoe up to the cut position while holding the tape.
10	Install onto machine with mounting knob.
11	Plug in electrical
12	Plug in air

The metering unit is now ready to use.

ATM-460 TAPE SYSTEM OPERATION GUIDE

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ADJUSTING THE METERING UNIT HEIGHT FOR STANDARD PRODUCTS

For standard products up to .76mm thick, position the metering unit 3mm above the product on the machine rollers.

Steps	Tasks
1	Place the product across the rollers.
2	Loosen the 4 attaching socket head screws on the mount block.
3	With the metering unit installed, place a 3mm shim between the metering unit main frame and the rollers.
4	Push the metering unit down until contact is made with the shim stock along the entire length of the metering unit.
5	Re-torque socket head cap screws to 45 kg/cm. (This pre-loads the spring-mounted rollers for proper tension.)

The metering unit is now ready to use.

INSTALLING THE METERING UNIT HEIGHT FOR THICK PRODUCTS

For thicker material, position the metering unit 2.3mm above the product on the machine rollers.

Steps	Tasks
1	Place the product across the rollers.
2	Loosen the 4 attaching socket head screws on the mount block.
3	Place a 3mm shim between the product and the metering unit main frame.
4	Push the metering unit down until contact is made with the 2.3mm shim.
5	Re-torque the socket head mount screws to 45 kg/cm. (This pre-loads the spring-mounted rollers for proper tension.)

The metering unit is now ready to use.

TAPING PATTERN EXAMPLES
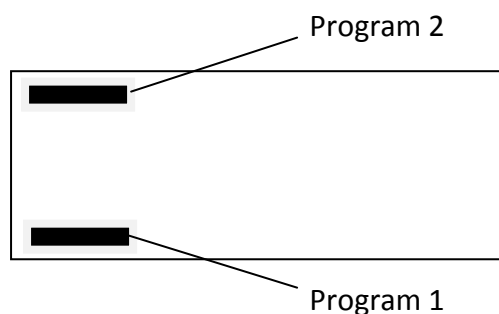
Program 2

Program 1

FIGURE 1 SETTINGS

Program 1		Program 2	
Start Tape	2	Start Tape	2
Tape Length	3	Tape Length	3

Figure 1. Taping same end of product.
The Programs are uncoupled
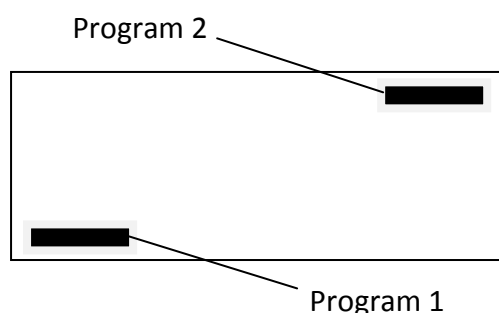
Program 2

Program 1

FIGURE 2 SETTINGS

Program 1		Program 2	
Start Tape	2	Start Tape	5
Tape Length	3	Tape Length	3

Figure 2. Taping opposite end of product
The Programs are uncoupled
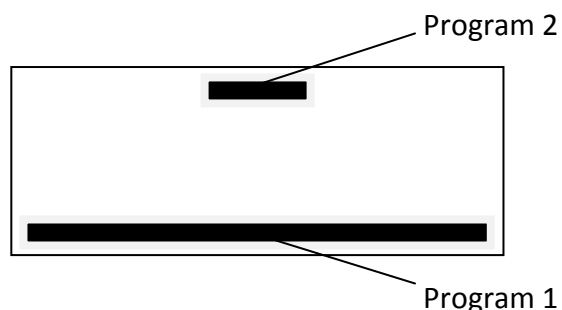
Program 2

Program 1

FIGURE 3 SETTINGS

Program 1		Program 2	
Start Tape	2	Start Tape	3
Tape Length	8	Tape Length	3

Figure 3. Taping the middle and the length of the product. The Programs are uncoupled

TAPING PATTERN EXAMPLES
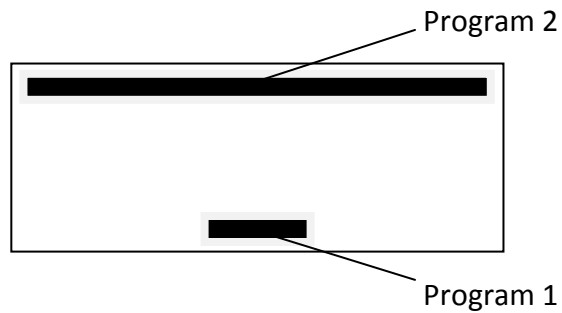
Program 2

Program 1

FIGURE 4 SETTINGS

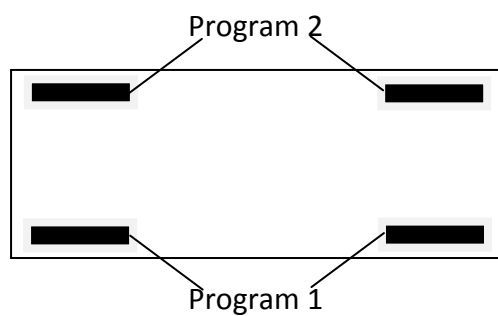| **Program 1**		**Program 2**	
Start Tape	3	Start Tape	2
Tape Length	3	Tape Length	8

Figure 4. Taping the length and the middle of the product. The Programs are uncoupled

Program 2

Program 1

FIGURE 5 SETTINGS

Program 1		**Program 2**	
Start Tape	2	Start Tape	5
Tape Length	3	Tape Length	3

Figure 2. Taping both ends of the product.
The Programs are coupled

TROUBLE SHOOTING GUIDE

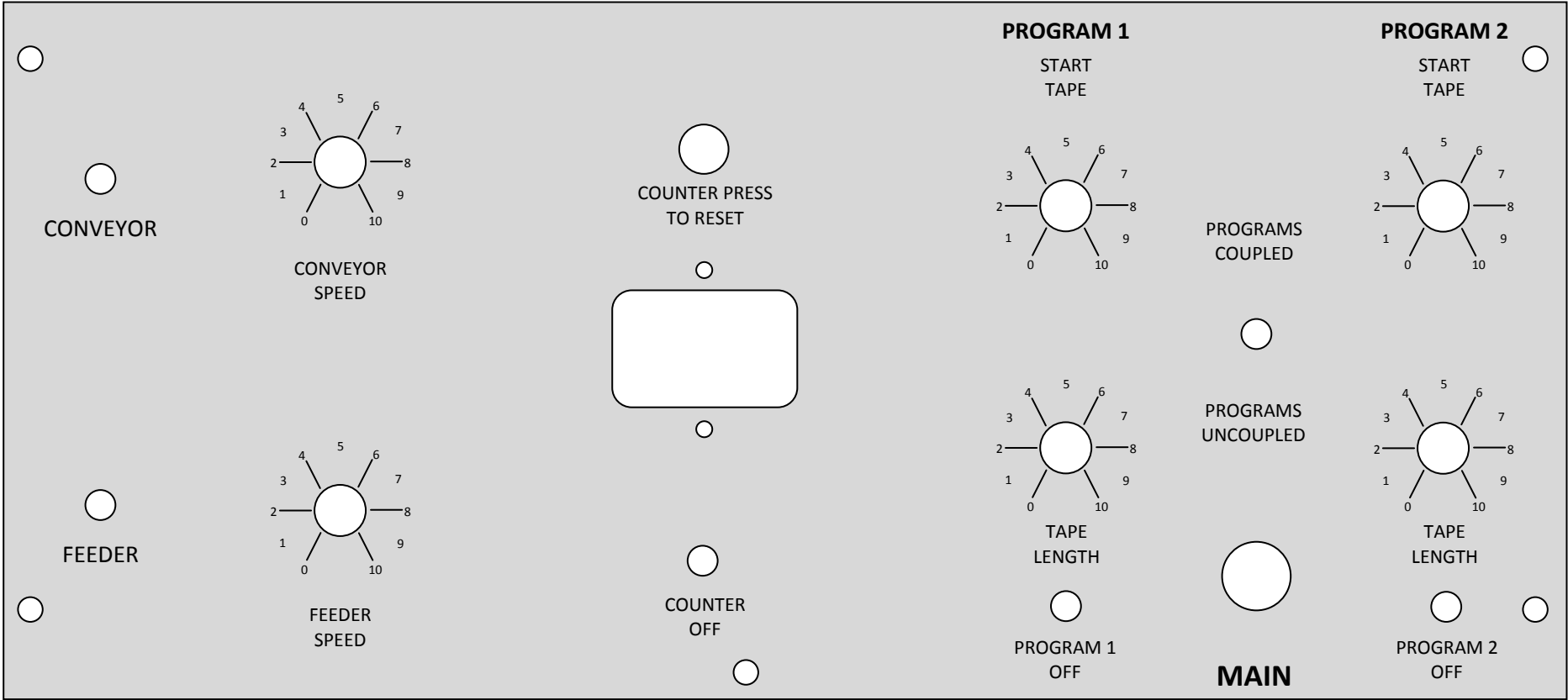| Problem	Remedy
IF THE TAPE WILL NOT APPLY AND THE METERING UNITS **ARE** ACTIVATING THEN...	• Improper threading of unit Rethread as per instructions.
IF THE TAPE WILL NOT APPLY AND THE METERING UNITS **ARE NOT** ACTIVATING THEN...	• Metering units are not plugged in Plug in metering units.
	• Program switches are off Turn on program switches.
	• Air pressure is too low Adjust air pressure to 50 – 60 psi.
IF THE METERING UNITS ARE IN APPLY MODE AT ALL TIMES AND THE SENSOR **IS** BLOCKED THEN...	• Sensor is blocked Unblock the sensor.
IF THE METERING UNITS ARE IN APPLY MODE AT ALL TIMES AND THE SENSOR **IS NOT** BLOCKED THEN...	• Defective sensor Check and replace if necessary.
	• Light Source inoperable Check and replace if necessary.
	• Cell (receiver) inoperable Check and replace if necessary. Note: Check indicator light on circuit board. If Light is off then sensor is blocked. If Light is on then sensor is not blocked.
	• Light is turned off Set sensitivity by rotating thumb-wheel pot to ON (Clear).
	• Defective light source If unable to turn light on by adjusting, then check by using flashlight to shine into cell (receiver) (black wire) located in upper mount bar. If indicator light lights then replace the light source (grey wire).
IF THE METERING UNITS ARE IN APPLY MODE AT ALL TIMES AND THE SENSOR **IS NOT** BLOCKED THEN...	• Light On at All times Cell (receiver) (black wire) inoperable. Remove and replace cell.
	• Electronic Failure Remove power supply and return to factory for repair. Note: If Electronic Failure – Check metering units for shorted coils. Repair as necessary or return to factory for repair. Shorted coils will short out power supply transistors.

TROUBLE SHOOTING GUIDE (cont...)

Problem	Remedy
IF TAPE APPLIES TOO LATE THEN...	• Incorrect Start Tape adjustment Adjust start tape to a lower number.
	• Incorrect Conveyor Speed Adjust the conveyor speed. Note: Select conveyor speed for best lay of tape. (Slow equals greater accuracy). Adjust feeder speed to obtain a 12mm to 24mm gap between products. Once adjusted, speed must remain or re-adjustment of tape start time and tape length is required.
	• Improperly Adjusted Flow Controls Adjust flow controls on metering units. (Open 1.5 – 2 turns from closed position – screw in towards bottom.)
	• Low Air Pressure Increase air pressure to 50 – 60 psi.
IF TAPE APPLIES TOO LONG THEN...	• Incorrect tape length adjustment Adjust tape length to a lower number.
	• Incorrect Conveyor Speed Adjust conveyor to a slower speed.
IF THE MACHINE WILL NOT OPERATE AND THE FUSES **ARE BLOWN** THEN...	• Bad fuse Replace fuse with 2 amp fast blow fuse only.
IF THE MACHINE WILL NOT OPERATE AND THE FUSES **ARE NOT** BLOWN THEN...	• Power source failure Check circuit for proper voltage – 240V AC. Repair as necessary or relocate to useable circuit.
	• Unusable electric circuit Check circuit for proper voltage – 240V AC Repair as necessary or relocate to useable circuit.
	• System unplugged Plug system into 240V AC outlet.
MACHINE OPERATES BUT THE METERING UNITS DO NOT WORK AND THE SOLENOID VALVE **IS** CLICKING (OPERATING) THEN...	• Air supply is low Check and adjust air supply to 50 – 60 psi.
MACHINE OPERATES BUT THE METERING UNITS DO NOT WORK AND THE SOLENOID VALVE **IS NOT** CLICKING (OPERATING) THEN...	• Shorted or broken wire in valve cord or plug. Repair as necessary

IMPORTANT: Keep the system clean and free of build-up to ensure trouble free operation.
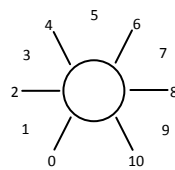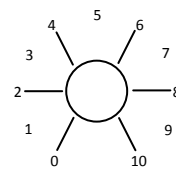
ATM-460 TAPE SYSTEM

2015

www.getpacked.com.au

CONVEYOR

CONVEYOR SPEED

0 1 2 3 4 5 6 7 8 9 10

FEEDER

FEEDER SPEED

0 1 2 3 4 5 6 7 8 9 10

COUNTER PRESS TO RESET

COUNTER OFF

PROGRAM 1

START TAPE

0 1 2 3 4 5 6 7 8 9 10

TAPE LENGTH

0 1 2 3 4 5 6 7 8 9 10

PROGRAM 1 OFF

PROGRAMS COUPLED

PROGRAMS UNCOUPLED

MAIN

PROGRAM 2

START TAPE

0 1 2 3 4 5 6 7 8 9 10

TAPE LENGTH

0 1 2 3 4 5 6 7 8 9 10

PROGRAM 2 OFF

PROGRAM 1

START
TAPE

PROGRAM 2
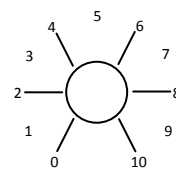
START
TAPE

PROGRAMS
COUPLED

PROGRAMS
UNCOUPLED
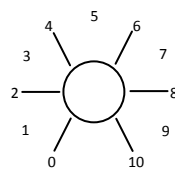
TAPE
LENGTH

TAPE
LENGTH

PROGRAM 1
OFF

MAIN

PROGRAM 2
OFF

CONVEYOR

CONVEYOR
SPEED

ATM-460 – SETTING TEMPLATE GUIDE
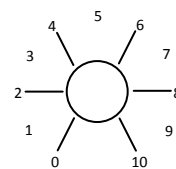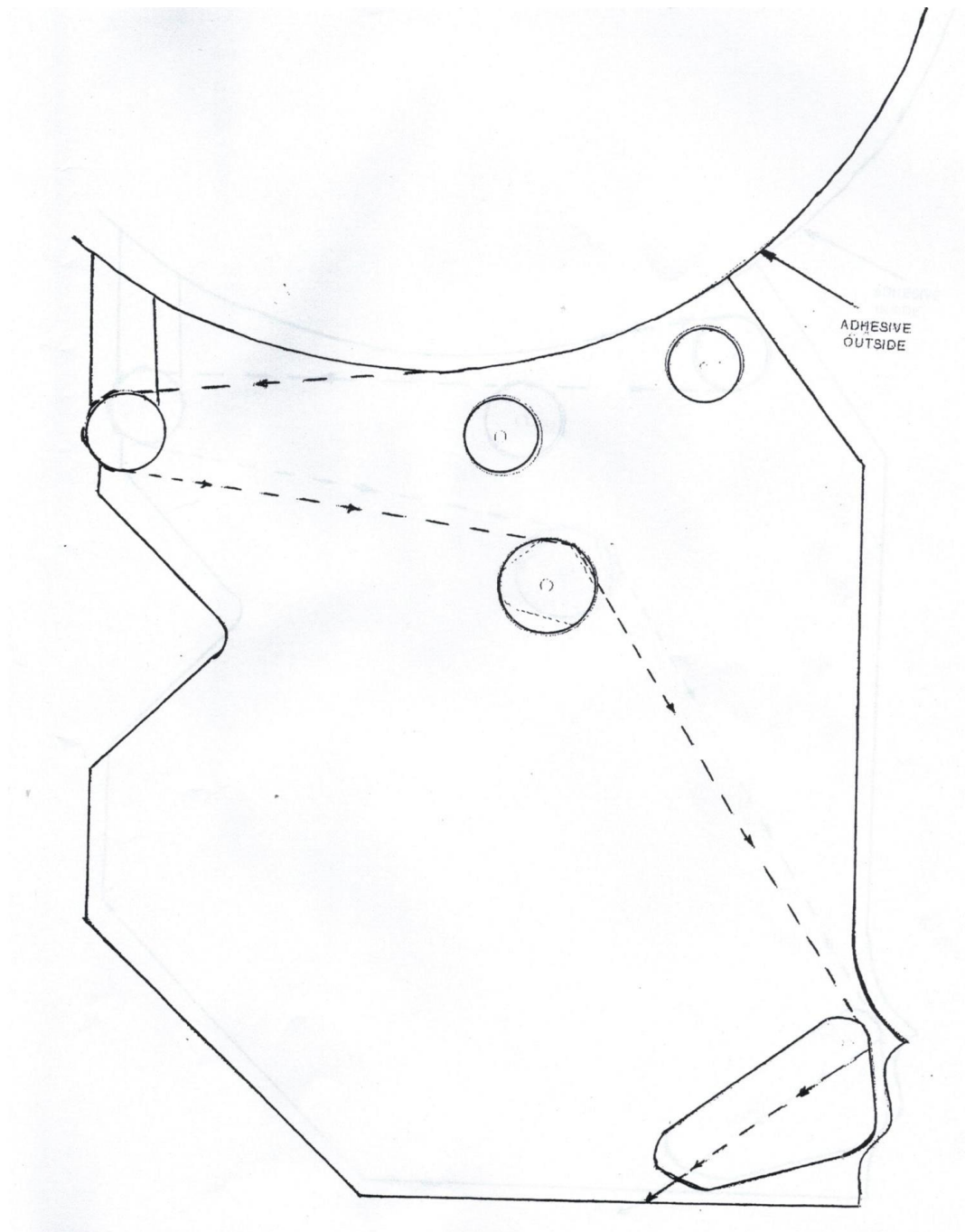
ADHESIVE OUTSIDE
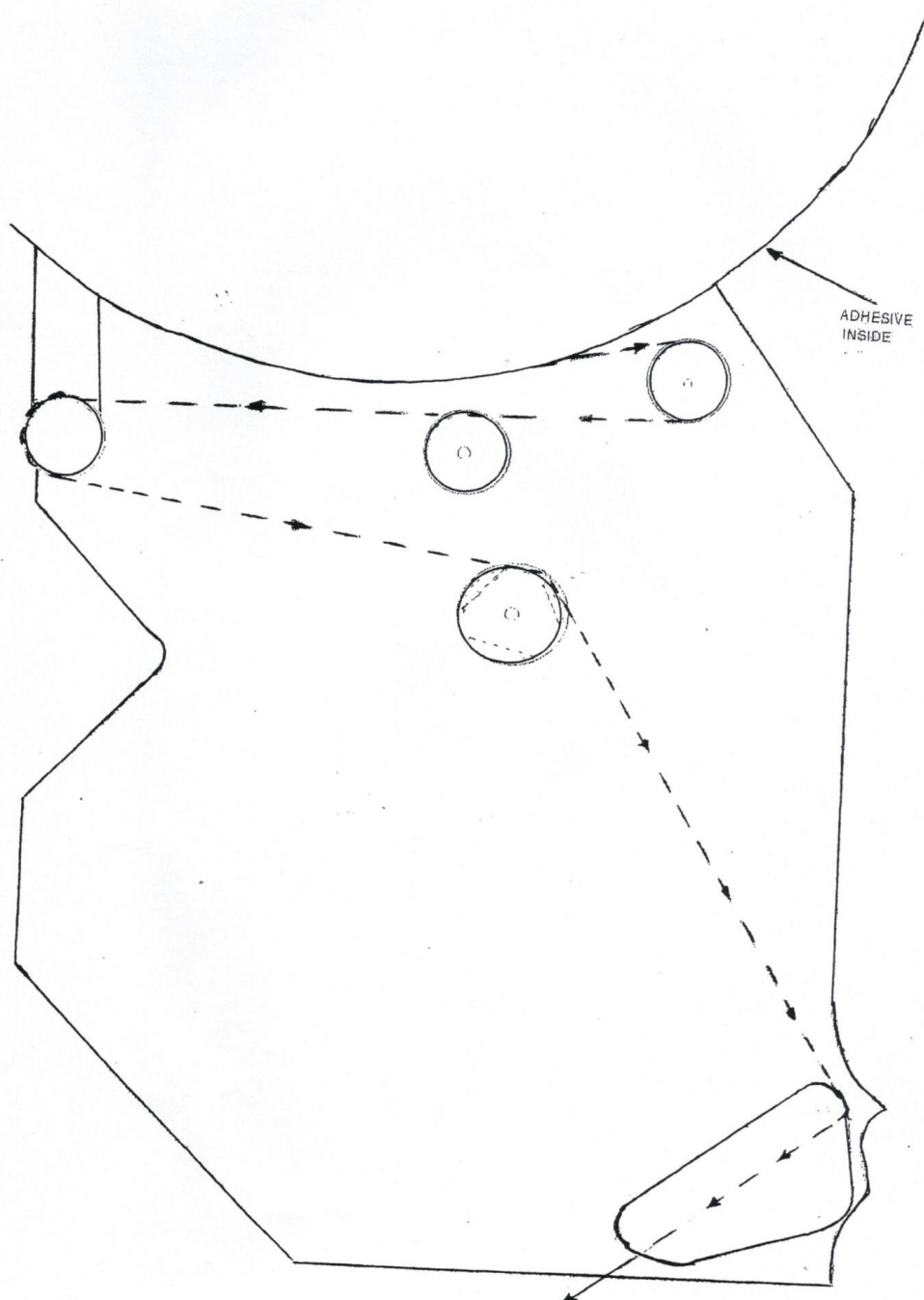
ADHESIVE
INSIDE

ADHESIVE INSIDE

TAPE METERING UNIT PARTS LIST

2015

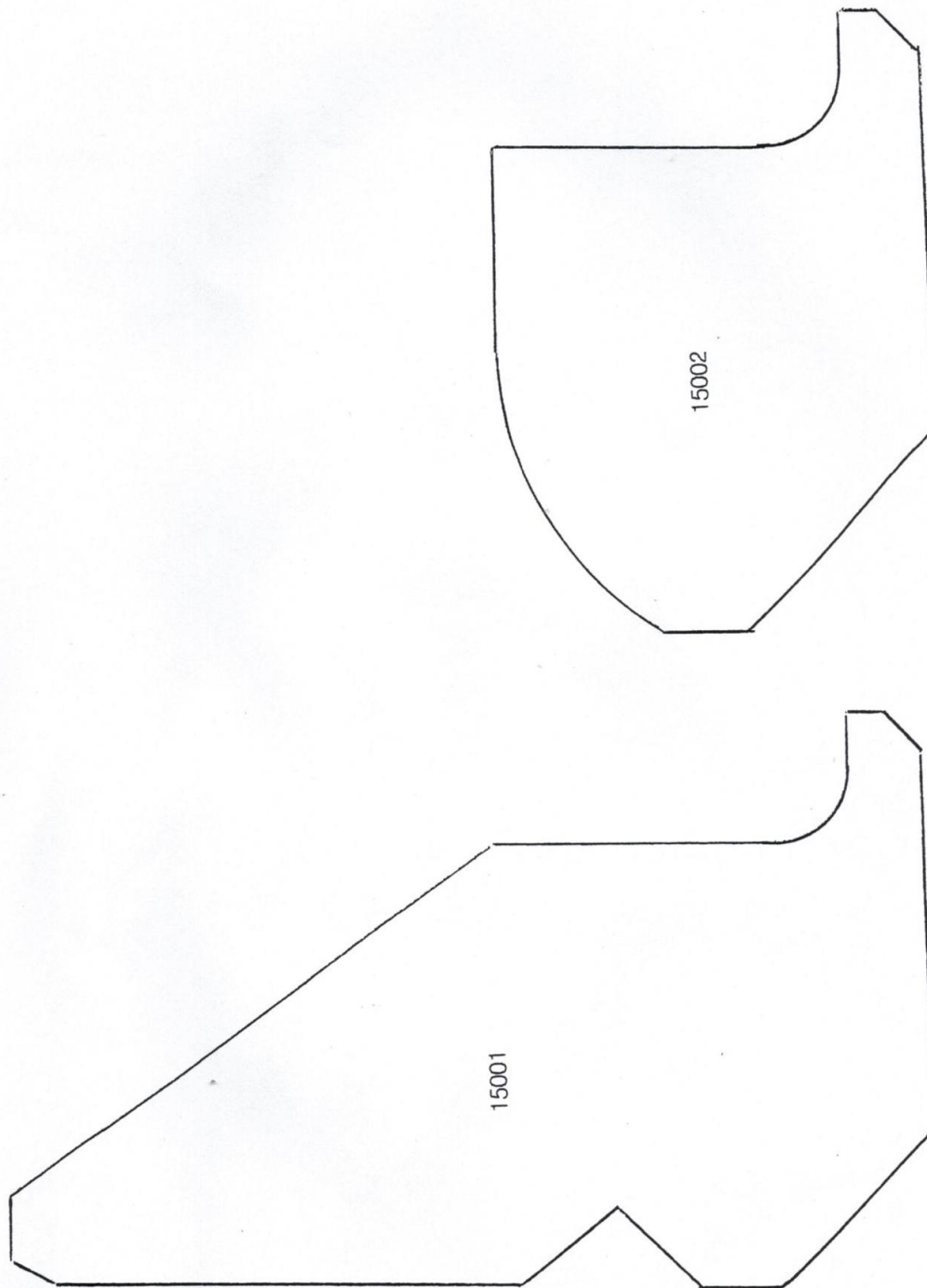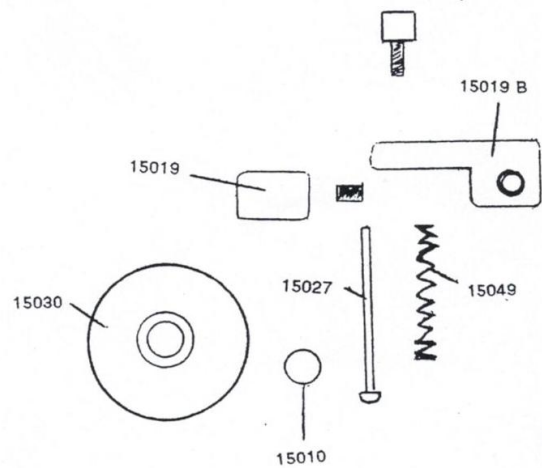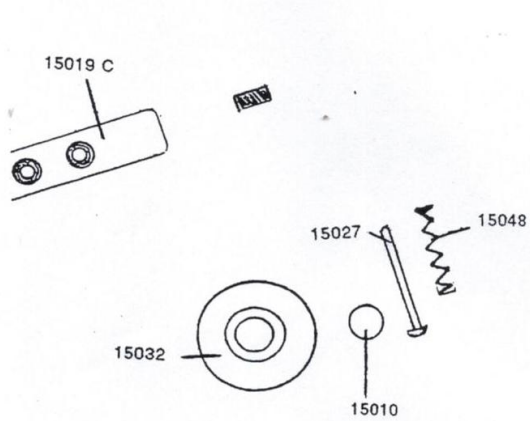| Item ID	Item Description
2-ATM-15000	1" Wide Metering Unit
2-ATM-15000-2	Metering Unit for 2" Head
2-ATM-15000-3	3" Wide Metering Unit
2-ATM-15000-HS	Metering Unit
2-ATM-15001	Main Frame Plate
2-ATM-15002	Access Side Plate
2-ATM-15003	Tape Shoe Pivot Pin
2-ATM-15003-2	Tape Shoe Pivot Pin for 2" Head
2-ATM-15004	Knife Arm Pivot Pin
2-ATM-15004-2	Knife Arm Pivot Pin for 2" Head
2-ATM-15005	Cylinder Pivot Mount Pin
2-ATM-15005-2	Cylinder Pivot Mount Pin 2" Head
2-ATM-15006	Tape Guide Pin
2-ATM-15006-2	Tape Guide Pin for 2" Head
2-ATM-15007	Capstan Pin
2-ATM-15007-2	Capstan Pin for 2" Head
2-ATM-15008	Unwind Pin
2-ATM-15008-2	Unwind Pin for 2" Head
2-ATM-15009	Tape Apply Roller Pin
2-ATM-15009-2	Tape Apply Roller Pin for 2" Head
2-ATM-15010	Pressure Roller Pin
2-ATM-15010-2	Pressure Roller Pin for 2" Head
2-ATM-150100	Spotter Shaft
2-ATM-15011	Tape Check and Link Pin
2-ATM-15011-2	Tape Check and Link Pin for 2" Head
2-ATM-15012	Clevis and Knife Link Pin
2-ATM-15012-2	Clevis and Knife Link Pin for 2" Head
2-ATM-15013	Mounting Clamp
2-ATM-15013-2	Mounting Clamp for 2" Head
2-ATM-15014	Tape Shoe
2-ATM-15014-2	Tape Shoe for 2" Head
2-ATM-15015	Link
2-ATM-15015-2	Link for 2" Head
2-ATM-15016	Knife Arm
2-ATM-15016-2	Knife Arm for 2" Head
2-ATM-15017	Cylinder Rod Clevis
2-ATM-15018	Knife
2-ATM-15018-2	Knife for 2" Head
2-ATM-15019	Pressure Roller Mount
2-ATM-15019-2	Pressure Roller Mount for 2" Head
2-ATM-15019B	Pressure Roller Block
2-ATM-15019B-2	Pressure Roller Block for 2" Head
2-ATM-15019C	Pressure Roller Mounting Bar
2-ATM-15019C-2	Pressure Roller Mounting Bar for 2" Head
2-ATM-15020	Air Valve & Cylinder Mounting Block
2-ATM-15020-2	Air Valve & Cylinder Mounting Block for 2" Head
2-ATM-15021	Tape Check Stud Clamp Mount
2-ATM-15021-2	Tape Check Stud Clamp Mount for 2" Head
2-ATM-15022	Spring Loaded Tape
2-ATM-15022-2	Spring Loaded Tape for 2" Head
2-ATM-15023	Positioning Spring
2-ATM-15024	Unwind Tape Core Holder
2-ATM-15024-2	Unwind Tape Core Holder for 2" Head
2-ATM-15025	Unwind Felt Washers
2-ATM-15026	1 1/4" Pressure Roller Pin
2-ATM-15027	1" Pressure Roller Guide Pin

TAPE METERING UNIT PARTS LIST

2015

2-ATM-15028	Capstan Roller
2-ATM-15028-2	2" Capstan Roller
2-ATM-15029	3 position Tape Guide
2-ATM-15029-2	3 position Tape Guide for 2" Head
2-ATM-15030	Trailing Pressure Roller
2-ATM-15030-2	Trailing Pressure Roller for 2" Head
2-ATM-15031	Tape Apply Roller
2-ATM-15031-2	Tape Apply Roller for 2" Head
2-ATM-15031-3	Tape Apply Roller for 3" Head
2-ATM-15032	Leading Pressure Roller
2-ATM-15032-2	Leading Pressure Roller for 2" Head
2-ATM-15033	Clamp Locking Knob
2-ATM-15034	Inboard Tape Guide
2-ATM-15035	Outboard Tape Guide
2-ATM-15036	Tape Check Roller
2-ATM-15037	Stripper Shoe
2-ATM-15037-2	Stripper Shoe for 2" Head
2-ATM-15037-3	Stripper Shoe for 3" Head
2-ATM-15038	1/4" x 4 1/4" Air Tube
2-ATM-15039-HS	Air Valve
2-ATM-15039A	Valve Assembly
2-ATM-15040-HS	Air Cylinder
2-ATM-15041	Tension Arm
2-ATM-15042	1/4" – 20 Hex Nut
2-ATM-15043	1/8" Npt Cyl Barb
2-ATM-15044	#10 – 32 Nipple
2-ATM-15045	#10 – 32 Coupling
2-ATM-15046	#10 – 32 Barb
2-ATM-15047	Silicon Roller
2-ATM-15048	11/16 x .026 Spring
2-ATM-15049	1" x .026 Spring
2-ATM-15050	1/8" x 1/4" Poly Flow 90° Elbow
2-ATM-15051	Tape Shoe Spring
2-ATM-15052	1/16" x 1 3/8" Steel Pin
2-ATM-15053	Threaded Rod
2-ATM-15054	#6 – 32 x 1/8" Butt Head Screw
2-ATM-15055	#6 – 32 x 1/4" Butt Head Screw
2-ATM-15056	#8 – 32 x 1/4" Butt Head Screw
2-ATM-15057	#8 – 32 x 3/8" Butt Head Screw
2-ATM-15058	#10 – 32 x 1/2" Butt Head Screw
2-ATM-15059	#10 – 32 x 1 1/2" Butt Head Screw
2-ATM-15060	1/4" C-Clips
2-ATM-15060A	3/8" C-Ring
2-ATM-15061	3/16" E-Ring
2-ATM-15062	1/4" E-Ring
2-ATM-15063	3/8" E-Ring
2-ATM-15064	3/16" x 1/4" x 1/4" Oil Bushing
2-ATM-15065	1/4" x 3/8" x 1/4" Oil Bushing
2-ATM-15066	3/8" x 1/2" x 3/8" Oil Bushing
2-ATM-15067	3/4" x 1" Emory Drums
2-ATM-15068	Core Holder Clip
2-ATM-15069	3/8" Shaft
2-ATM-1507	Springs
2-ATM-15070	Input Air Tube
2-ATM-15071	Tension Spring

15002

15001

2015

15007

15028

15029

15006

15023

15013

15053

15033

15019 C

15019 B

15019

15027

15048

15027

15049

15032

15030

15010

15010

15005

15006

(for high speed head)

15040

15040 (HS)

15046

15047

15022

15022 (SPRING LOADED)

15060 A

15012

15069

15017/HS

C

15004

15017

15016

15021

15034

15012

15015

15011

15003

15035

15018

15014

15011

15036

15052

15031

15060

15051

15037

15009

TAPE METERING UNIT PARTS LIST

2015

15025

15024

15008

15071

15041