

Instruction Manual
&
Parts List

Model Number: 830-150-150ST

Voltage: 480

Phase: 1

Hertz: 50/60

Amps: 10

Air: 20-72 psi

Acromark Model 800 Manual

SAFETY

(THIS SECTION IS EXTREMELY IMPORTANT)
SAFE USE AND OPERATION OF THE EQUIPMENT
IS THE RESPONSIBILITY OF THE USER

It is the responsibility of the user to establish safe operating conditions for each and every piece of equipment. A regular schedule of safety maintenance should be established at the time each piece of equipment is placed in operation. Each operator should be instructed in the proper and safe operation of the equipment. **Single station machines are designed for operation by a single (one) operator and at no time should an operator attempt to run the press with a set up requiring the assistance of a second person to hold or locate the part being decorated.** All plant personnel in any way connected with the set-up, use, or maintenance of the equipment should be familiar with the controls and operating conditions of the equipment. Maintenance should be performed only by authorized personnel thoroughly familiar with the function of all controls and safety interlocks.

Under no circumstances should safety guarding, electrical or mechanical safety interlocks be removed or so modified as to make them inoperative. Removal of any guards or electrical or mechanical safety interlocks or the overriding of any of these items will automatically make null and void any product warranty on any ACROMARK machinery.

This ACROMARK press is equipped with safety features to cover all normal operations for which the press is intended. Addition of special tooling, feeders, ejectors, etc. may require the installation of additional electrical systems or devices. Instructions with respect to the use, setting, and adjustments of safety features are detailed in the following pages. These should be carefully and thoroughly reviewed before placing the equipment in operation. These sections include, but are not restricted to the following:

Mounting the press

Electrical installation

Air connection

Safety shutoff valve

Ram speed, control

Timer - Dwell

Temperature Control

Safety hand switches

Pinch point control

Set-up procedures

Adjustable depth stop

Tape guides

Single or double acting cylinders

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****ACROMARK LIMITED WARRANTY****

ACROMARK Industries warrants to the original purchaser all parts, either purchased or manufactured, for a period of one year following date of shipment from the ACROMARK plant. This warranty is limited to replacement or repair of any defective part, at the sole discretion of ACROMARK Industries, Inc.

Any defective part must be returned to the plant, freight prepaid. The repairs and /or replacement will be completed and the part returned freight prepaid via the least expensive method of transportation best suited for the part. Any express transportation, over and above the most economical method, will be the sole responsibility of the customer. These latter types of shipments will be made on a freight collect basis.

Replacement parts that are supplied prior to the receipt of defective parts will be invoiced to the customer, including freight and handling. Upon receipt and inspection of the defective part, the applicable credit will be issued.

Under no circumstances does this warranty imply that ACROMARK Industries is obligated to make on-site part replacements or repairs of defective materials or parts. Labor, travel, and other costs for such on-site repairs will be at the expense of the customer, less applicable credit for replacement parts. Any machine components which wear or are damaged by misuse are not covered by any warranty.

This warranty will become null and void if any guard or electrical or mechanical safety interlocks are removed or altered by the customer, regardless of the date of machine manufacture or shipment.

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ACROMARK MODEL 800 SERIES PRESSES

INTRODUCTION

Your ACROMARK Hot Stamping Machine is a rugged unit requiring minimum maintenance. It is designed to give long trouble-free service with reasonable care. Operating Instructions should be followed carefully and personnel should be fully trained in the operation of the machine per these instructions. The press is equipped with controls to provide the necessary flexibility to insure optimum marking results on the substrates of your choosing. These controls and their adjustments are described in detail in the following sections of this bulletin.

INSTALLATION OF THE PRESS

Location of the machine: The equipment should be set up and arranged so that an easy, straight forward flow of parts maybe maintained from the feed side of the press. Try to avoid placing the press where irregular drafts of air might effect the constancy of the temperature on your dies, negatively effecting the quality of your marking. Guarding for you machine should be considered so as to prevent workers other than the machine operator from having access to the stamping area of the press.

Electrical Installation: Refer to the cover section of this manual for electrical service requirements. A three wire input lead with U ground plug is supplied for models requiring 110 or 220 Volt service.

Air Connection: All models have a maximum air input capacity (dictated by cylinder design and safety considerations) of 72 pounds per square inch (psi) as read on the two air regulators on the control panel. Incoming line pressure of up to 150 psi can be accepted. (As noted in the Set-Up Section of this instruction book, there are two pressure systems with separate regulators, each with a different function to be explained in that section.) The air connection for the press is made at the inlet of the air filter. It is recommended that you use a flexible hose of a minimum 1.D. size of 1/2" to allow sufficient airflow and prevent starving of the press during peak demand periods.

Air Filters: An air filter has been provided with the press to reduce the possibility of impurities entering the air/oil power system. **IT IS CRITICAL THAT PARTICULATE CONTAMINANTS, EMULSIONS, OR OTHER FOREIGN MATTER BE PREVENTED FROM ENTERING THE AIR CONTROL SYSTEM OF THE PRESS.** If there is evidence of contamination being present in the plant compressed air source, the addition of a coalescing filter is highly recommended. This filter should be placed in line after the filter provided by Acromark. In order to maintain maximum filtering efficiency, all filter bowls and filter elements must be kept clean. (Please refer to the filter manufacturer's maintenance instructions included in this manual.)

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MODEL 800 SERIES, CONTROLS AND THEIR FUNCTION

Safety Shut-off Valve:

An air shut-off safety valve is located in the air supply line above the solenoid valve on the “Low Pressure” regulator system. In the open position, the handle points in the direction of the orifice opening. **NOTE: This valve should be used to shut off the air whenever any work is being done under the marking head. It is also a good practice to shut the valve whenever the press is not in operation.**

Pressure Regulators:

The inflowing air line pressure to the cylinders is controlled by the pressure regulating valves. The gauge indicates the pressure admitted to the cylinders. Clockwise rotation of the handle will increase pressure and counter-clockwise rotation will lower it. **NOTE: To change to a lower pressure setting, allow the indicator to fall below the desired new setting and increase to the desired pressure.** The functionality of the two pressure systems is discussed in the Set-Up section which follows.

Ram Speed Control:

These presses are equipped with a needle valve which controls the flow of the “Low Pressure” air, thereby controlling the speed at which the cylinder and heated head cycle down and up. Closing this valve (clockwise rotation) allows the operator to prevent the die from descending too rapidly, potentially damaging the part or the die.

Hand Switches:

All ACROMARK presses manufactured for single station tooling are equipped with anti-tie down, dual actuating safety style hand switches. These machines are intended to be operated by only one operator at a time and are wired such that both hand switches must be depressed simultaneously to operate the press and both must be released to allow the safety circuits of the equipment to reset. The switches in each housing should always be replaced in pairs and purchased from ACROMARK. To remove the switches, disconnect the power source to your press, remove the pivot bolt holding the paddle to the housing and lift out the paddle. Remove the two screws on the side of the housing which will allow you to lift out both switches. Refer to the wiring diagram provided in this manual for reference to switch and wire positions. It is important to replace wires and switches as illustrated on the wiring diagram to ensure that the safety circuit functions properly. When replacing the paddle, be sure to have the pivot bolt free, by leaving approximately 1/16” between the elastic stop nut and the housing. If the paddle does not lift freely after being depressed, check to see that the pivot bolt is loose and that the paddle spring at the front of the housing is in place.

NOTE: Newer presses may be equipped with Opto-Touch hand switches which are replaced as a unit and are described in literature included with your manual.

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MODEL 800 SERIES, CONTROLS (CONTINUED)

Pinch Point Control:

All standard presses with dual actuating hand switches described above are equipped with our additional safety circuit, referred to as pinch point control. This circuit requires that the operator maintain both hand switches in the depressed position until the marking die reaches the part and the press automatically activates the "High Pressure" circuit. At that time, the hand switches may be released. If either switch is released prematurely, the marking head will return to the up position. This circuit is automatic with the Series 800 Presses and needs no adjustments or setting during normal set-up operations.

Depth Stop: **NOTE: A pinch point exists where the locking ring contacts the spacer collar during the normal operation of this press. A Depth Stop Guard is supplied with your press to protect this pinch point. Warning labels are supplied on the press to alert the operator to the presence of this hazard.**

The double-ended power cylinders used on these presses provide for a threaded top end which is provided with a spacer collar, a locking ring, and a removable cylindrical guard. This adjustable stop is used as follows:

Metal dies:

The stop is normally not used to control the depth of the impression when using metal dies unless absolutely necessary (as in the case where the die must be run very hot.) Use of a stop in this manner negates the utility of the press to automatically compensate for variations in product thickness. For the majority of jobs the depth of impression should be controlled by adjustments to the PRESSURE, DWELL TIME, AND (lastly) TEMPERATURE. The stop should ALWAYS be set to prevent the die from striking the nest or fixture in the event that the press is cycled with no work piece in position.

Rubber dies:

When using silicone rubber dies, the stop should generally be set to prevent the rubber from compressing more than 25 to 35 percent of its original thickness when in pressure contact with the part. This can normally be approximated by loosening the depth stop collar 1/4 to 1/2 turn during the set up operation.

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MODEL 800 SERIES, FOIL ADVANCE AND HEATED HEAD ASSEMBLIES

Heated Head: **NOTE: These heads can be set to run at temperatures approaching 600 degrees F and can easily burn unprotected skin. Warning labels are attached to the press at the factory to warn the operator of these hot surfaces.**

The actual head of your press is the heating platen for the dies. This head is provided with brass dovetail rails for holding the steel dovetail die mounting plate. This is secured by means of a 3/4" diameter nut on one side of the head (two nuts on one side for larger length heads.) NOTE: Do not use the tightening of this nut to raise or "snug" the die mounting plate up to the heated head. The die and the mounting plate should be held up against the heated head while this nut is tightened. The brass rails are screw mounted and replacement rails are available from ACROMARK. An insulating plate is provided above the heated platen to force the heat down to the die and to prevent excessive heat build up on the tape frame.

Heating Elements:

Heat is provided to the heated head by replaceable cartridge heaters (or flat strip heaters on heads over 24" in length.) Each cartridge heater is held in its mounting hole by a set screw located on the underneath side of the head, toward one end of the head (behind the die mounting plate, which must be removed to access these screws.) When removing a cartridge heater for replacement, loosen the setscrew and pull the heater out the end of the head that has the setscrew.

Foil Advance, Motorized:

The motor foil advance is actuated by a head-up, momentarily actuated micro switch that is automatically tripped during the press cycle. The motor advance is electrically interlocked with the press cycle, enabling recycle of the machine only after the foil has completely advance.

The length of the foil advance is controlled by a timed pulse produced by the foil advance timer. (On machines equipped with ACROTRONS, this is accessed through the T-5 timer function.) On systems supplied with a heat transfer feed system, this timer is overridden by the electric eye controls when they are in the "ON" mode. When turned "OFF" the advance timers then become the dominant timer and the system can be used as a standard motorized foil advance.

The foil advance motor is protected from overload by a replaceable 2 amp, slow burn fuse. This should be checked first if a malfunction occurs on the advance system.

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MODEL 800 SERIES, FOIL ADVANCE ASSEMBLIES (Continued)

Tape Guides-Fixed:

Adjustable tape guides are provided on all tape frames. These should be set to allow the foil to remain slightly away from the heated die (approximately 1/4" is desirable.) Caution should be taken to check that the guides clear the part and fixture when the head is in the down position, a point to be checked during the set-up procedure detailed later in this section. Do not activate the press under stamping pressure until this checking procedure has been completed or there will be risk of damaging the guides or even the foil rails of the advance system.

Tape Guides-Retractable:

When Supplied as an option, the retractable tape guides can be set to retract as the heated head and tape frame descend toward the part, allowing a marking on large parts that would otherwise prevent the guides from clearing to the side of the part during a normal marking cycle of the press. To properly set these tape guides, start by loosening the two middle lock collars (of the three lock collars found on each vertical portion of the guides) for one of the two guides and proceed to position the lower stripper bar at a height such that the foil is held approximately 1/4" below the surface of the mounted die. Retighten these center collars, being sure that the horizontal stripper bar is level and square to the direction of the foil flow. NOTE: if this bar is not horizontal, the foil will tend to "walk uphill", that is move toward the front or back of the heated head during normal operating of the press. Should this tendency be noted, the first thing to check is the levelness of both of these stripper bars.

After setting both sets of bars to position the foil at the proper height with the head in the retracted or "up" position, proceed to setting the four lowest collars on the two guides. These collars are used to control the spring tension that holds the foil down on the part during the initial upward travel portion of the head, following the marking of the part. Only a slight amount of pressure is required with approximately a 20% spring compression being set.

The top set of lock collars are used to halt the descent of the foil guides during the marking cycle, controlling their travel to stop them just prior to the time the die contacts the fixtured part. To adjust these collars, loosen all four collars and proceed to bring the head down as detailed in the set-up mode (by reducing your low pressure regulator to zero pressure, allowing the head assembly to descend from its own weight.) With the die and stripper bars now in contact with the part, raise each vertical bar approximately 1/8" and tighten the collars with them resting on the horizontal guide bar provided, a bar that is usually positioned as extending from the top bearer block of the power cylinder. With all four tightened, reset low pressure to approximately 60 psi and the head will return up. With proper adjustments as described above, the foil will be held away from the heated die during the ascent and descent of the power cylinder, with the retracting action occurring as the collars come in contact with the guide bar, just prior to the die contacting the fixtured part.

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MODEL 800 SERIES, SET UP PROCEDURES

Set up:

The ACROMARK Series 800 Presses function using a combination air/oil power system. Two separate air regulators are located on the right hand side of the press frame. The regulator labeled "Low Pressure" controls air pressure for the up and down cycling of the heated head assembly. This regulator should be set at approximately 60 psi and should not need further adjustment. NOTE: heavier head assemblies (larger heated heads or extended die mounted blocks) may require more pressure to raise the assembly following marking. This should be noted during this set-up procedure and this setting changed accordingly.

The head down speed can be controlled separately from the Low Pressure setting through the use of the needle valve labeled "Ram Speed, Down". By closing this valve (clockwise rotation) the head speed down can be reduced, preventing impact damage to silicone rubber dies or excessive speeds as caused by larger and heavier heated head assemblies.

The "High Pressure" regulator controls the tonnage applied during the actual marking cycle. When the die comes in contact with the part being marked, the press automatically switches to the high-pressure system. At this point the power cylinder on the ten ton ACROMARK Model 830's will develop one ton of pressing force for each seven (7) pounds of pressure dialed into the high pressure regulator.

WARNING: The high-pressure regulator should never be set at more than 72 psi.

NOTES: 1. Model 840 and 850 presses will develop one ton of force for each 5 and 3.5 pounds of pressure on the high-pressure regulator respectively.

2. Some specific presses have been modified such that the initiation of the high pressure marking cycle is accomplished through the actuation of a switch located on the depth stop of the power cylinder, rather than the contacting of the die to the part. In order to assure that high pressure is initiated, it is important that the depth stop be properly adjusted during set up so as to contact this switch prior to the die contacting the part and halting the travel of the head.

To mount and align a die on the heated head, the power and heat switches should be OFF. These controls are located on the ACROTRON Process Controller or main control panel for presses using alternate controllers. The head can be lowered by reducing the low-pressure regulator, causing the weight of the heated head assembly to bring the head down. To properly position a new die for mounting, place it exactly in place on the fixtured part, back off the depth stop (the adjustable collar on the top of the power cylinder) and reduce the low pressure to zero. The head will descend and make contact with the die. Mark the proper location on the die mounting plate with a china marker or equivalent item. With the head in the down position, set the depth stop by turning the locking collar clockwise until it makes contact with the stop collar.

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MODEL 800 SERIES, SET UP PROCEDURES (Continued)

Now increase low pressure setting slowly until the head returns to its up position.

NOTE: A pinch point exists between the moving (orange) ram plate of the press and the stationary lower bearing plate of the power cylinder. A warning label is affixed to the press to alert the operator to this potential pinch point hazard.

With the head in the "UP" position, close the safety shut off valve to the air line, remove the die mounting plate and screw mount the die to the dovetail. Ample room in the mounting holes should be permitted to allow for correction of slight die misalignment on the setting up of new dies.

With the die mounted to the dovetail plate, reinstall the dovetail in the head of the press, holding the dovetail up in contact with the aluminum heated head while tightening the bolt that secures the plate to the head. Now open the safety valve and lower the low pressure again so that the head descends to contact the part. If the location has been maintained, the die should be in place and the depth stop correctly set. NOTE: The tightening of the dovetail clamps can be done at this point to assure that the steel dovetail plate is seated firmly against the heated head, eliminating any air gap between the plate and the head. With the plate securely tightened up to the head, increase low pressure again, returning the head to its "UP" position. With the low pressure gauge now appropriately set to lift the head up, use the "Ram Speed Down" valve for additional head speed adjustments as necessary.

With the die securely in place, turn the HEAT switch "ON" and wait for the die to reach its proper marking temperature. If silicone rubber dies are used, the depth stop should now be set to provide for the desired degree of compression. Approximately a half turn should be sufficient to provide a 30% compression on a 1/8" thick rubber. For metal die work the collar can be backed off a full turn (to allow for product thickness variations which will be automatically compensated for by the press while preventing the die from striking the fixture in the event that the press is cycled without a part in place.) On the locking depth stops the collar should now be locked and the protective sleeve placed over the threaded rod assembly to avoid this pinch point.

Foil can now be strung while waiting for the head to reach marking temperature. String the foil below the head and up/over the knurled roller and then down between it and the rubber roller, loosening the cam locks on the rubber roller by lifting them up. Finally wrap the foil around the scrap foil rewind cylinder and be sure the urethane rewind belt is in position. Close the cam locks and cycle the foil advance using the foil advance jog button provided to be sure that the foil is tracking properly.

When the die has reached its proper marking temperature, turn "ON" the main POWER, either by depressing the POWER button on the ACROTRON or the appropriate switch on other control panels. Review the pages enclosed with this manual that specifically detail the function of your controller.

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MODEL 800 SERIES, SET UP PROCEDURES (Continued)

For initial set up use a dwell time (T-1 timer) of 1.00 seconds, delay strip timers each at 0.00 (T-2, and T-3), assuming your press has this option activated or installed, and the motor foil advance timer (T-5) at an appropriate time for the length of your mark. By depressing the two palm buttons and holding them down until the high pressure is activated, a test mark can be made. NOTE: release of the buttons prior to high-pressure initiation will cause the head to automatically retract. This is the anti-pinch point safety circuitry for this press.

By evaluating the mark made by this test cycling, adjustments can now be made to either the dwell timer, high pressure regulator, or, lastly, temperature controller. NOTE: The high-pressure setting will provide the high tonnage squeeze for the marking as indicated on the gauge on the main power cylinder of the press. There should be no reason to make changes to the low pressure setting, unless the combined weight of the die and the heated head is such that more air pressure is needed to raise the head fully after the marking cycle. If delayed foil strip is found to be required, appropriate times should be entered in the two timers (T-2 and T-3.) See the instructions on the appropriate controller as detailed elsewhere in this manual.

Raising Table:

On standard "C" frame presses a raising table is installed which allows for adjusting the height between the die plate on the heated head and the fixtured part to be marked. It is only necessary with this press to bring the part to within the stroke of the power cylinder (4" to 8" depending on the style press) when the heated head is in its uppermost rest position. Any other variations in part location or part thickness are automatically compensated for by the air/oil power system. Adjustments need to be made to the central threaded support shaft and the four outboard supports. The center shaft is captivated with a bored tube. On the front of this tube is a locking screw which should always be loosened before attempting to raise or lower the table. Likewise, this screw should be retightened after the height is set to assure a stable fixture base and prevent the table from moving after completion of the set up.

Leveling of the heated head:

The head is mounted to an orange ram plate on offset bolts which allow for the adjustment of alignment of a mounted to the fixtured part during the set up operation. On machines supplied without specific tooling packages installed at the factory, these bolts are set at the factory such that the bottom of the die mounting plate is parallel to the work platen. If all of the procedures outlined above are followed and the die is mounted properly over a securely fixtured part, there may still exist the need to level the surface of the die to match the alignment of the part. With this leveling system it is possible to make simple adjustments using the offset bolts that will preclude the need to shim the support fixture or use excessive amounts of make-ready under the part to bring it to a proper alignment with the die.

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MODEL 800 SERIES, SET UP PROCEDURES (Continued)

For purposes of adjusting the head, start by loosening and tightening the pairs of nuts located on the top and bottom of the orange ram plate. Raising a portion of the die is accomplished by loosening at least two adjacent lower nuts and tightening the paired upper nuts to pull the heated head up toward the ram plate. Always make adjustments with at least two adjacent bolts. Lowering the die is accomplished by loosening the upper nuts and tightening the lower paired nuts. Once the die is properly aligned, be sure to check for secure tightening of all of the adjusting nuts.

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WATTS

QUBE F75

Installation and Maintenance Instructions

The WATTS QUBE F75 air filters remove impurities from the air stream two ways- dynamically by centrifugal force, by which the deflector throw3s out heavier particles and entrained water,; and statically through the filter element itself, which filters out the smaller particles. The QUBE F75 filter provides enough filtration for most pneumatic applications; however, in situations where water and/or oil aerosols must also be filtered out a QUBE F71 coalescing filter should be installed also.

Installation:

All QUBE components are individually tapped (NPT) to allow direct mounting to piping. Also, each QUBE FRL component comes equipped with the necessary screws and O-rings to enable connection to other QUBE components of the same series without the need for pipe nipples or special adapters. Before installing, blow out pipe line to remove scale and other foreign matter. This unit has DRYSEAL pipe threads; use pipe compound or tape sparingly to male threads only. Install units in pipeline so that flow is with arrows as indicated on faces of body. Install as near as possible to equipment serviced.

Maintenance:

To maintain maximum filtering efficiency and to avoid excessive pressure drop, the filter bowl and element must be kept clean. Turn drain valve clockwise from bottom to drain any bowl accumulation before it reaches levels of lower baffle. To aid in the draining of the bowl an internal automatic drain (PN SAF105MD) may be installed to automatically drain bowl accumulation. A visible coating of dirt or condensate on the filter element or an excessive pressure drop indicates cleaning is necessary. Caution: Filter Bowl must be cleaned with household soap only!

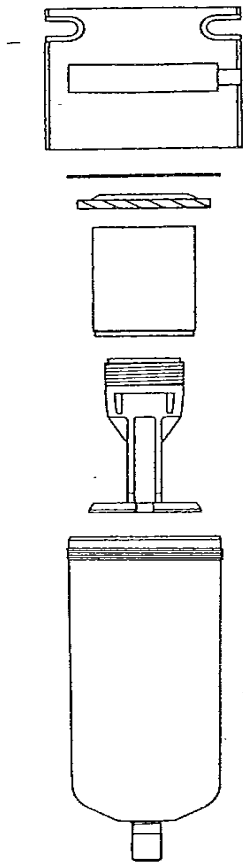
Warning!

The polycarbonate plastic material used to manufacture the plastic bowl may be attacked by certain chemicals. DO NOT use these units on systems with air supplied by a compressor lubricated with synthetic oils or oils containing phosphate esters or chlorinated hydrocarbons. These oils carry over into the airlines and chemically attack and possibly rupture the bowl. Also, DO NOT expose these units to materials such as carbon tetrachloride, trichlorethylene, acetone, paint thinner, cleaning fluids, or other harmful materials, for they too will cause the plastic to craze and/or rupture. For use in environments where any of these chemicals may be present consult the factory for approval prior to installation.

Note:

This filter is designed for use with compressed air in industrial applications. For other applications consult factory before use.

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Body:

- 1/4" F75-02-0011 (0000789)
- 3/8" F75-03-0011 (0000790)
- 1/2" F75-04-0011 (0000791)

Gasket: F55-1011 (1101005)

Deflector Vane Plate: F55-0751P (1075005)

Filter Element: "J" 40 μ = EK55J
 "G" 5 μ = EK55G

Filter Retainer: F55-0491P (1049001)

Bowl:

"B" := BKF55B (1373660)
 Polycarbonate W/Polyethylene
 Bowl Guard 150 PSI Max. Press.

"D" := BKF55D (1373661)
 Zinc Bowl 300 PSI Max. Press.

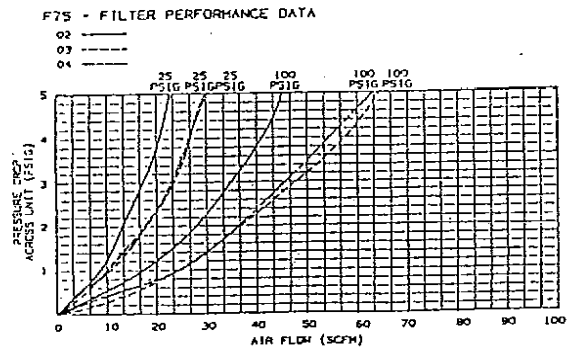
"W" := BKF55W (1373662)
 Zinc Bowl W/Wraparound Sight
 Glass 250 PSI Max. Press.

Operating Parameters:

	Max. Press	Temp. Range
"B" Bowl	150 psi	40°-120°F
"D" Bowl	300 psi	40°-180°F
"W" Bowl	250 psi	40°-150°F

Options:

- SA602MD Internal Automatic Drain:
- "R" option (175 psi Max Press.)



Acromark Model 800 Manual

QUBE Wraparound Sightglass Bulletin

The following is a list of chemical categories and their compatibilities with the Isoplast Polyurethane resin used to manufacture the QUBE Wraparound Sightglasses. In most cases the sightglasses are compatible with hydrocarbon based synthetic lubricants.

Water	Excellent
Salt Solutions	Excellent
Inorganic Acids, Weak	Excellent
Inorganic Acids, Strong	Excellent
Inorganic Acids, Concentrated	Fair-Poor
Inorganic Bases, Weak	Excellent
Inorganic Bases, Strong	Excellent
Oxidizing Solutions	Excellent
Soaps and Detergents	Excellent
Hydrocarbons, Aliphatic	Excellent
Hydrocarbons, Aromatic	Excellent
Hydrocarbons, Chlorinated	
Non-Polar	Excellent
Polar	Fair-Poor
Organic Acids	Excellent
Alcohols	Fair-Poor
Ketones	Poor

Contact factory for information regarding use with compounds not listed above.

LIMITED WARRANTY - the Company warrants each product against defects in material and workmanship for a period of one year from the date of original shipment. In event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge. This shall constitute the exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental or consequential damages, including without limitation damages or other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse air conditions, chemicals, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication or improper installation of the product.

THE COMPANY MAKES NO OTHER WARRANTY. ALL OTHER WARRANTIES, ORAL OR WRITTEN, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A SPECIFIC PURPOSE ARE HEREBY EXCLUDED AND DISCLAIMED. IN NO EVENT SHALL THE COMPANY BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. The Company reserves the right to make changes without prior notification.

The liability of the Company for all loss or damage resulting from non-conforming goods or tender, including breach of any and all warranties, shall be limited to refund of the purchase price of the particular goods with respect to which the loss or damage occurred.

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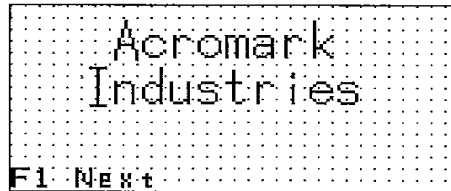
PREVENTATIVE MAINTENANCE PROCEDURE MODEL 830 HOT STAMPING MACHINES

- | Step No. | Procedure |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 ... | Upon completion of an order where no subsequent orders are scheduled, shut off the air safety shut-off valve and remove the air supply line. Failure to shut off the valve prior to removing the air supply will allow the heated head to settle and may cause damage to the stamping pad. |
| 2 ... | Remove the electric power cord. |
| 3 ... | Wipe or blow clean entire press using an air gun or clean rag to remove dirt, dust or resin particles from all exposed surfaces. |
| 4 ... | Wipe clean the four vertical head guidance rods and clean tops of bearings guiding the rod through the bearing blocks. Apply a "light" coating of way oil or 10 to 20 weight machine oil to the rods to prevent rust. Lubrication can reduce friction and minimize wear of the linear rods. Do <u>NOT</u> grease rods as this attracts dirt and dust. Do <u>NOT</u> use WD-40 or fluorocarbons. |
| 5 ... | Empty contents of water trap located in main air line. |
| 6 ... | Verify all bolts and screws on heated head and foil advance system are tight and secure. Examine wiring to heaters in aluminum heated head. Note missing or damaged components and request repair from maintenance. |
| 7 ... | Check level of fluid in press reservoir cylinder (rear cylinder on top of frame) by examining sight glass when the head is in the full "UP" position. If additional fluid is required, add only DEXTRON™3 automatic transmission fluid. Do <u>NOT</u> add hydraulic fluid. |

Acromark Model 800 Manual

FACE PANEL CONTROLS AND THEIR FUNCTION (Manual Presses/ Mitsubishi controls with F920-GOT Displays)

1. MAIN POWER SWITCH - Key pad will illuminate and machine become functional when switched "ON."



(Press the F1 key to "enter" and reach the menu screen)

2. HEAT SWITCH - Can be turned "ON" without "Power" switch being turned on in order to preheat press. When activated, the temperature controller illuminates.
3. KEYPAD DISPLAY - The control will be programmed at the factory for the appropriate number of timers, a count function, and other special features as needed for each specific press. The use of the function (F1, F2, F3, & F4) keys and arrow keys are explained later in these instructions.
4. EMERGENCY STOP - A red mushroom button labeled "Emergency Stop" will halt the cycle of the press immediately upon actuation, causing the head to return to its up/home position. To reset the press, this button must be pulled out.
5. TEMPERATURE CONTROL - The controller will display either the set or actual temperature. In its static mode, the actual temperature will be displayed. The set temperature can be changed by depressing and holding the asterick button on the bottom left. The display will flash "° F" and your set temperature. By depressing the up and down arrow buttons, the number will increase or decrease. When the desired reading is reached, simply release all buttons.

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WORKING SCREENS ON THE CONTROLLER KEYPAD

MENU SCREEN

```
.....MENU.....
F1 Settings
F2 Count Setup
F3 Foil/Xfer
F4 Main
```

This screen allows access to appropriate screens

MAIN SCREEN

```
##### Count Up
.....
Advance Mode Foil
F1 Menu      F2 Reset
              Count
```

Information displayed on this screen includes:

The "count mode" for the press (either counting up as an accumulating counter or counting down as a batch counter)

The current "part count" on the machine

Resetting your displayed count to zero (pressing F2)

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TIMER SCREEN

To access the timer screen, press F1 on the menu screen. The display shown below will appear:

```
###.##.Head Dwell
###.##.Delay Start
###.##.Head Delay
###.##.Foil Adv
###.##.Fast Speed
###.##.Xfr Timeout
F1 Menu          F4 Main
```

TIMER SETTINGS - This controller is equipped with a number of addressable, internal timers. Depending on the options selected for your particular press anywhere from one to six of these timers have been programmed at the factory. These timers are identified as follows:

Head Dwell- Determines the time the die is in contact with the part under set temperature and pressure.

Delay Start - Determines the distance the head comes up before stopping for the start of your strip delay.

Head Delay - Determines the time that the head stays at the delayed height to allow the foil and the part to cool prior to carrier stripping.

Foil Advance – When the transfer mode is turned “OFF” or for presses with the standard motorized foil advance system, this timer determines the length of the foil pull, more time equaling a longer pull.

Fast Speed - Foil advance time at high speed, programmed to minimize the time required to complete the advance of preprinted heat transfers. The foil advance motor automatically switches to a slower speed when this timer times out, completing the carrier pull when the witness mark is seen by the electric eye.

Transfer Time Out - This timer is set to prevent a continuous pull of transfer carrier in the event that a misalignment occurs and the electric eye does not see the witness mark. If a normal advance is 1.5 seconds, for example, this timer should be set for 3.0 seconds.

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The procedure for setting the timers is as follows:

Press "SET". Scroll the cursor using the directional arrow keys of the display. The left or up pointing arrow moves the cursor up, the right or down pointing arrow moves it down. When the cursor rests on the timer that you wish to access, enter the new value with the keypad; be sure to use the decimal point to enter the correct number. Press "ENT". Changes have been made and the new value is displayed.

Definition of various timers:

Head Dwell Time - This timer controls the interval from the physical activation of the head down proximity switch mounted behind the depth stop cylinder on top of the press. The resulting dwell time is what is called a "pure dwell" or the time the die is actually contacting the part. This feature allows for a much finer degree of control as it is not effected by fluctuations in either air line pressure or ram speed as in other conventional presses. With the 800 Series presses this timer measures the actual time of "high pressure" activation, again giving you a "pure dwell" time measurement.

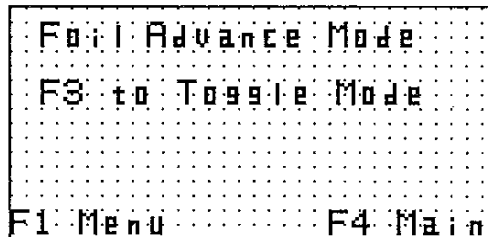
Delay Start - The foil strip delay circuit on the ACROMARK presses allows the heated die to be lifted up from the marked part to allow the mark to cool prior to stripping the carrier and foil from the part. This reduces flaking that occurs on some metallic foils and allows for successful marking on polyolefins. This timer actuates a solenoid valve that blocks the return flow from the main power cylinder, stopping the upward movement of the heated head. The longer the time entered, the higher the head will lift before being stopped. The time should be set to raise the head approximately one inch. The actual time required will be a function of several combined factors: the size (and thereby the weight) of the heated head and the actual pressure on the air regulator setting on the press. The bigger and heavier the head, the more time will be required. The higher your pressure setting, the less time will be required. A suggested starting point for this timer is a setting of 0.30 seconds. Test cycle the machine and adjust this timer for greater or lesser height by increasing or decreasing the setting.

Head Delay - Once you have established a correct height above the part (the die approximately one inch up but the foil/carrier still attached to the mark) set this timer according to test marks you will make with the die at marking temperature. Variables here will include the temperature of your die, temperature of the marked part, dwell time on the part, and release and adhesion properties of the specific foil being used. Start with a setting of 1.00 and adjust accordingly.

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Switching Foil/Transfer Modes

By choosing F3 from the MENU, you will access a screen that allows you to choose between Foil Mode or Transfer Mode. This sample screen shows the press to be in Foil Mode and in order to switch to Transfer Mode, instructs you to push F3. The display will reflect the mode chosen.



Foil Advance – When the press is in Foil Mode, the foil advance motor is started by actuation of a head-up switch, a maintained proximity switch set to automatically trip at completion of the marking cycle. The length of the foil advance is controlled by a timed pulse produced by this foil advance timer. The longer the time setting, the longer the advance of the foil. Factors such as foil roll diameter and feed spring tension will effect actual distances for each set- up.

NOTE: The foil advance motor is protected from overload by a replaceable 1 amp "slow blow" fuse. This should be checked first if a malfunction occurs on the advance system.

CUMULATIVE COUNT VERSUS BATCH COUNT FUNCTIONS

Most companies simply allow the counter on this controller to perform a cumulative count, adding one number with each cycle of the head while in a production run. In the event that you need to run specific batch counts, you can set the press to count down from a predetermined number, decreasing the count with each cycle of the press **AND STOPPING THE FUNCTIONING OF THE PRESS WHEN THIS COUNT REACHES ZERO.**

This point is emphasized to alert you to a potential trouble point when using the batch or down count mode. When the count reaches zero, the press will not function upon actuation of the hand switches. An error message will appear for 3 seconds alerting you to reset the counter. The count must be reset before the press will cycle, reset in the same way as the count up counter as explained on the detail for the main display screen.

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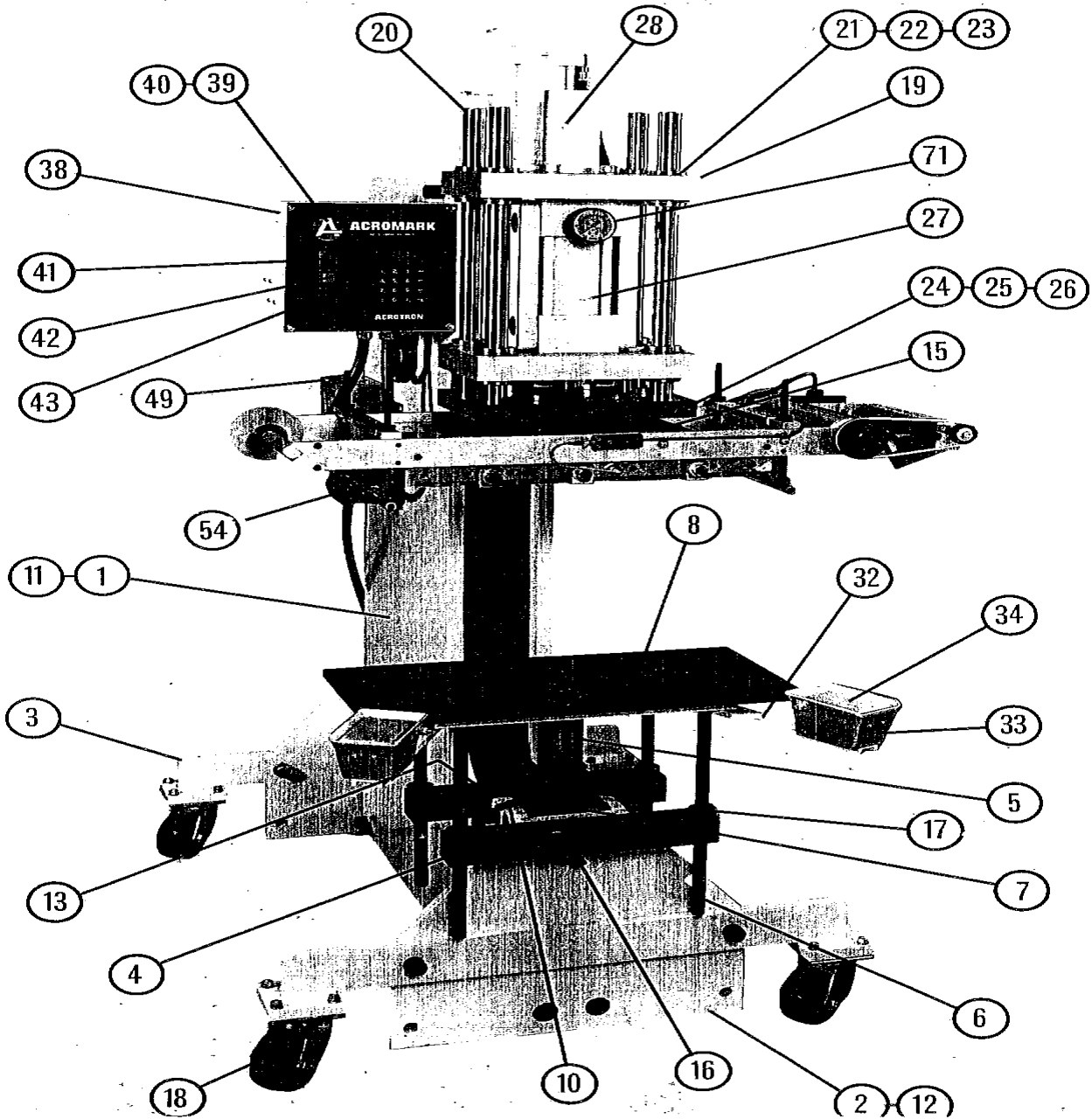
To set the batch counter, press "F2" from the MENU and the screen illustrated below will appear. By pressing F3, "Count Down" will appear under "PRESET COUNT" and you will be able to enter a number for the batch using the same procedure as the timer settings explainer earlier.

```
Set Count Preset #####  
Count Mode  UP  
F3 Toggle Count Mode  
F1 Menu      F4 Main
```

Return to the main screen by pressing F4, press F2 to RESET THE COUNT, and start your run.

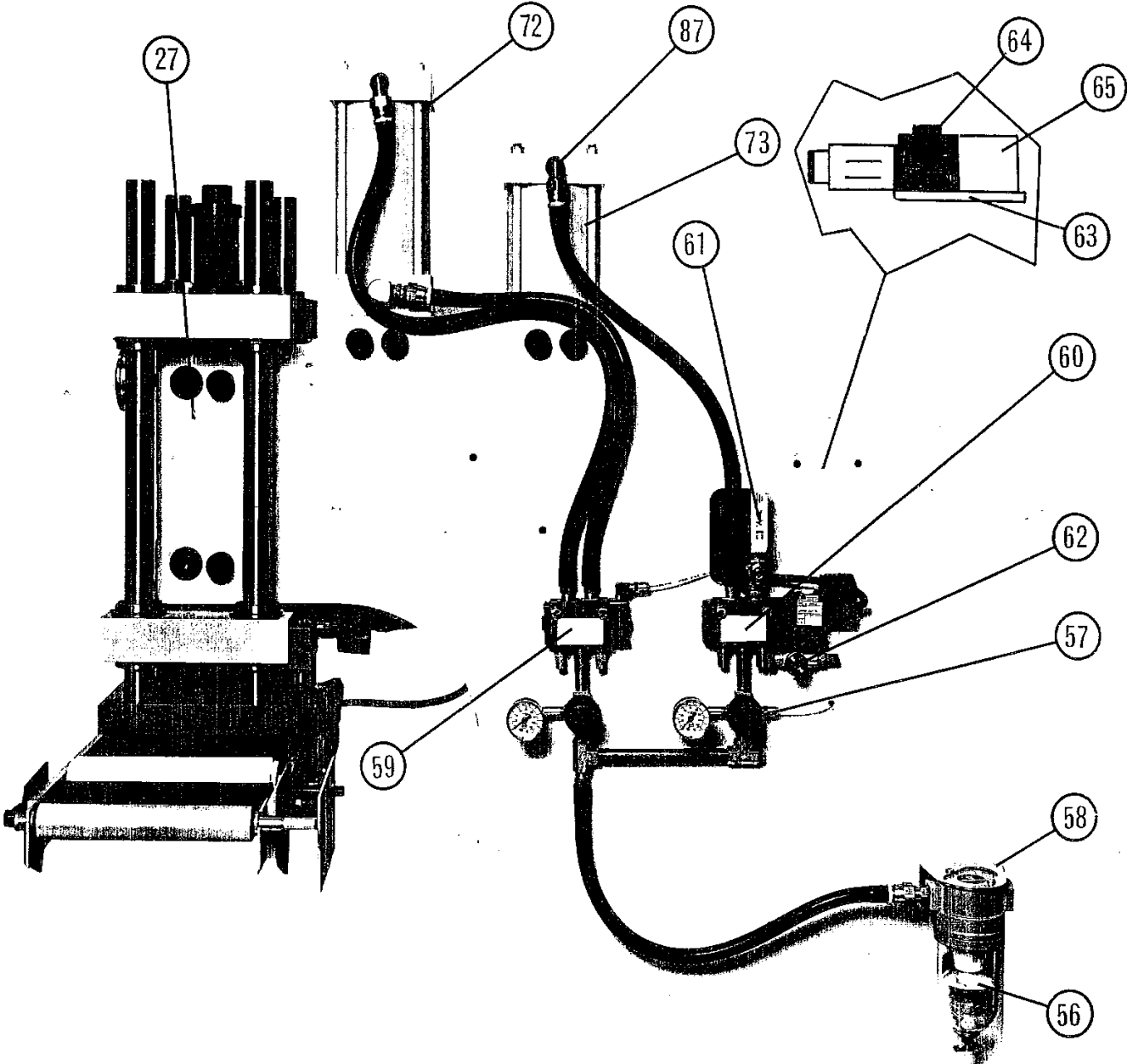
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MODEL 830 PRESS



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MODEL 830 PRESS



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PARTS LIST ACROMARK MODEL 830 PRESS

PART NUMBER	DESCRIPTION
830-1	Frame
830-2	Leg, Frame
830-3	Leg, Frame Support
830-4	Table Support
830-5	Elevating Table Weldment
830-6	Table Support Rod
830-7	Center Support Bar
830-8	Base Plate
830-9	*Spacer
830-10	Elevating Nut
830-11	Frame (Extended Shown)
830-12	Leg Frame (Extended Shown)
830-13	Table Support Spacer
830-14	*Anti-Turn Bar
830-15	Jacking Plate
830-16	Table Locking Screw
830-17	Collar - Clamp
830-18	Caster (optional)

POWER HEAD ASSEMBLY

PART NUMBER	DESCRIPTION
830-19	Bearing Block
830-20	Power Head Guide Rod
830-21	Linear Bearing
830-22	Retaining Ring
830-23	Wavey Spring Washer
830-24	Adapter Plate/Tie Bar
830-25	Tie Bar Spherical Washer
830-26	Tie Bar Attaching Collar
830-27	Hydraulic Cylinder
830-28	Cylinder Depth Stop Guard
830-29	*Cylinder Stop & Guard Spacer
830-30	*Stop Spacer
830-31	*Cylinder Stop Collar

*NOT ILLUSTRATED

** AS REQUIRED

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HAND SWITCH ASSEMBLY

PART NUMBER	DESCRIPTION
830-32	Switch Extension Arm
830-33	Switch Housing
830-34	Switch Paddle
830-35	*Switch
830-36	*Spring
830-37	*Strap

ELECTRICAL ASSEMBLY

PART NUMBER	DESCRIPTION
830-38	Electrical Enclosure
830-39	ACROTRON Face Panel
830-40	Electrical Enclosure (Back Panel)
830-41	"Power" Switch
830-42	"Heat" Switch
830-43	"Up To Temp" Switch
830-44	*Terminal Block
830-45	*Terminal Block
830-46	*Fuse Holder
830-47	*Power Cord
830-48	*Connector Clamp
830-49	**Disconnect Switch
830-50	*Head Up Switch Tripper
830-51	*ACROTRON Temperature Control
830-52	*Spacer - ACROTRON
830-53	*Relay - Mercury
830-54	**Transformer 240V to 120V
830-55	** *Transformer 120V to 12V

*NOT ILLUSTRATED

** AS REQUIRED

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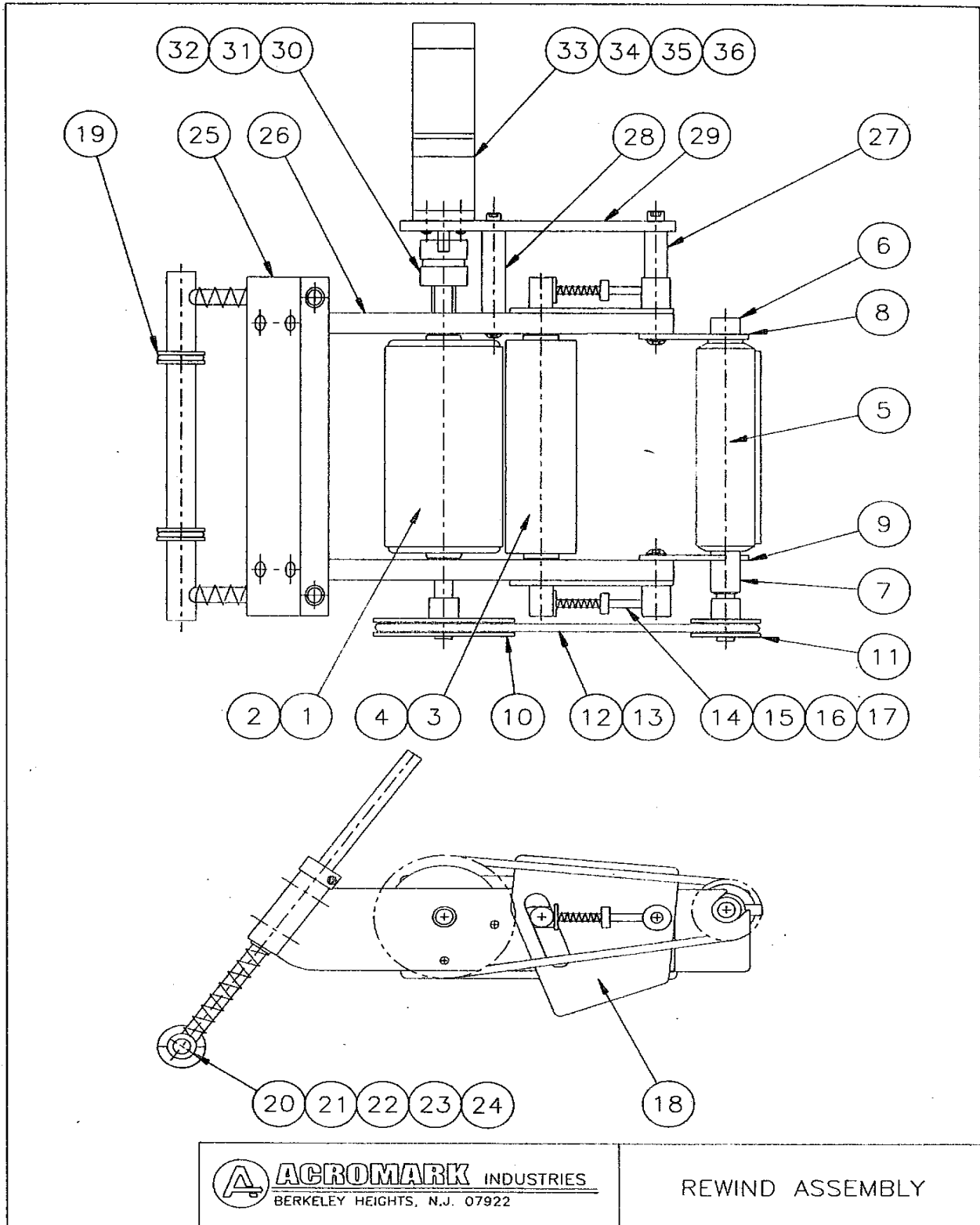
PNEUMATIC

PART NUMBER	DESCRIPTION
830-56	Filter
830-57	Regulator w/Gauge
830-58	Filter Bracket
830-59	High Pressure Valve
830-60	Low Pressure Valve
830-61	Safety Shut-Off Valve
830-62	Speed Control/Muffler
830-63	Base - Pneumatic Switch
830-64	*Head Down Switch
830-65	Pneumatic Switch
830-66	*Fitting - Pneumatic Plug in Y
830-67	*Tube Fitting
830-68	*Pneumatic Face Panel
830-69	** *Valve - Head Delay
830-70	*Connector - (2) Screw
830-71	Gauge
830-72	Hydraulic Booster
830-73	Air - Oil Tank

*NOT ILLUSTRATED

** AS REQUIRED

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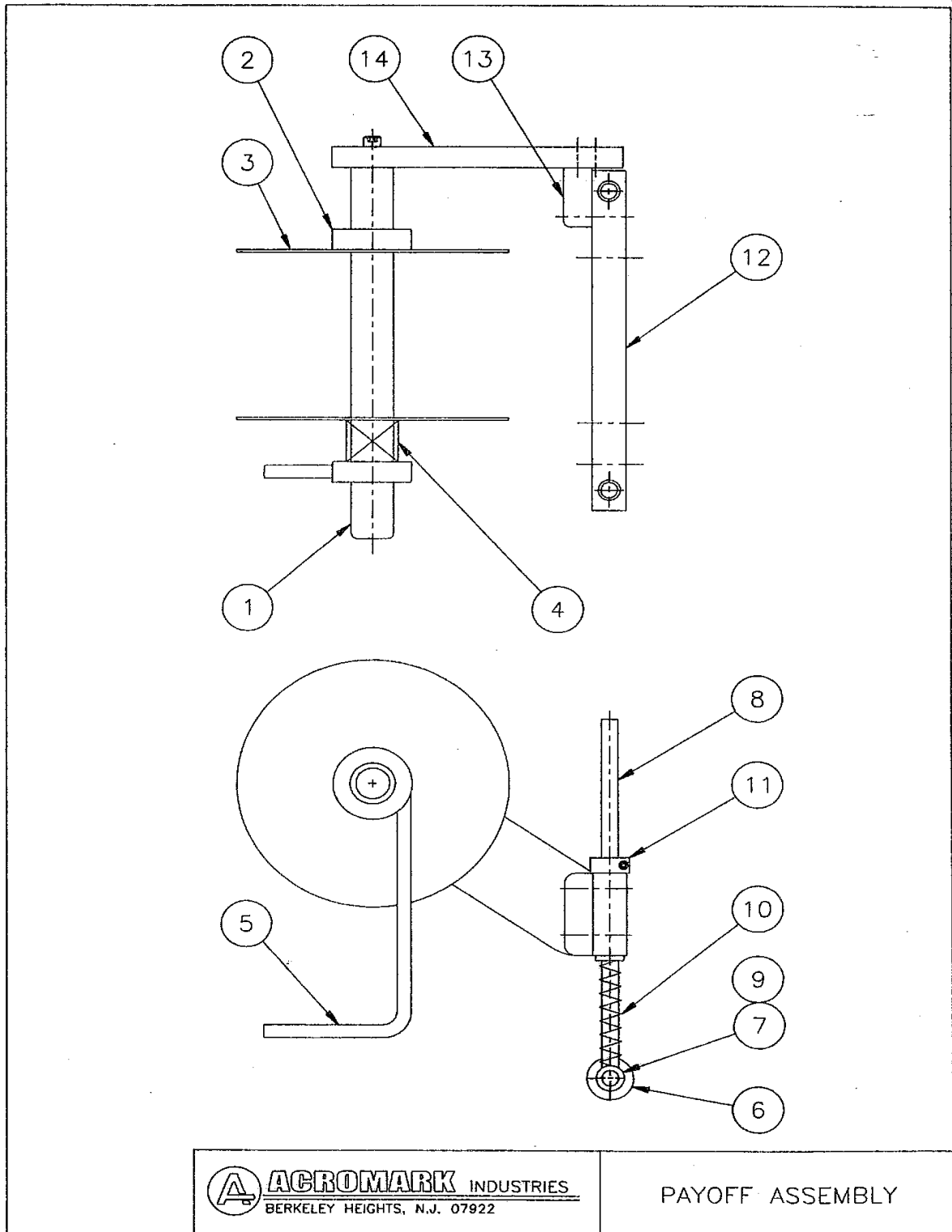


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PARTS LIST - REWIND ASSEMBLY 10.5"

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	RO6803390	KNURLED ROLLER	1
2	SH5001480	KNURLED ROLLER SHAFT	1
3	RO6803420	RUBBER ROLLER	1
4	SH6803430	RUBBER ROLLER SHAFT	1
5	SH6804080	REWIND SHAFT	1
6	BUSH20009	BRONZE BUSHING, FLANGE	1
7	BUSH20004	BRONZE BUSHING, SLEEVE	1
8	SU5001080	REWIND SHAFT SUPPORT	1
9	SU5001090	REWIND SHAFT SUPPORT	1
10	PULL20001	REWIND PULLEY, 3" DIA.	1
11	PULL20002	REWIND PULLEY, 1.5" DIA.	1
12	BELT20001	REWIND BELT	2 FT.
13	INSE20001	REWIND BELT INSERT	1
14	AS6803800	TENSION POST ASSEMBLY	2
15	SPRI20008	TENSION POST SPRING	2
16	COLL20014	TENSION ADJUSTMENT COLLAR	2
17	WASH60010	WASHER, SPRING GUIDE	2
18	CA6803210	CAM RETRACTOR	2
19	COLL20037	FOIL GUIDE COLLAR	2
20	BA5004090	HORIZONTAL FOIL GUIDE BAR	1
21	BA6801250	VERTICAL GUIDE BAR	2
22	RP00910	ROLL PIN	2
23	SPRI20005	FOIL GUIDE SPRING	2
24	COLL20003	FOIL GUIDE ADJUSTMENT COLLAR	2
25	GU5004110	VERTICAL GUIDE MOUNT BAR	1
26	RA5004040	FOIL REWIND RAIL	2
27	SP5002760	SPACER, TENSION POST	1
28	SP5002750	SPACER, MOTOR MOUNT PLATE	2
29	PL5004170	MOTOR MOUNTING PLATE	1
30	COUP20008	COUPLING HALF, MOTOR	1
31	INSE20003	COUPLING INSERT	1
32	COUP20004	COUPLING HALF, KNURLED ROLLER	1
33	MOTO30002	FOIL REWIND MOTOR	1
34	PLUG30003	MOTOR PLUG, (MALE)	1
35	PLUG30002	MOTOR PLUG, (FEMALE)	1
36	CAPX30001	MOTOR CAP	1

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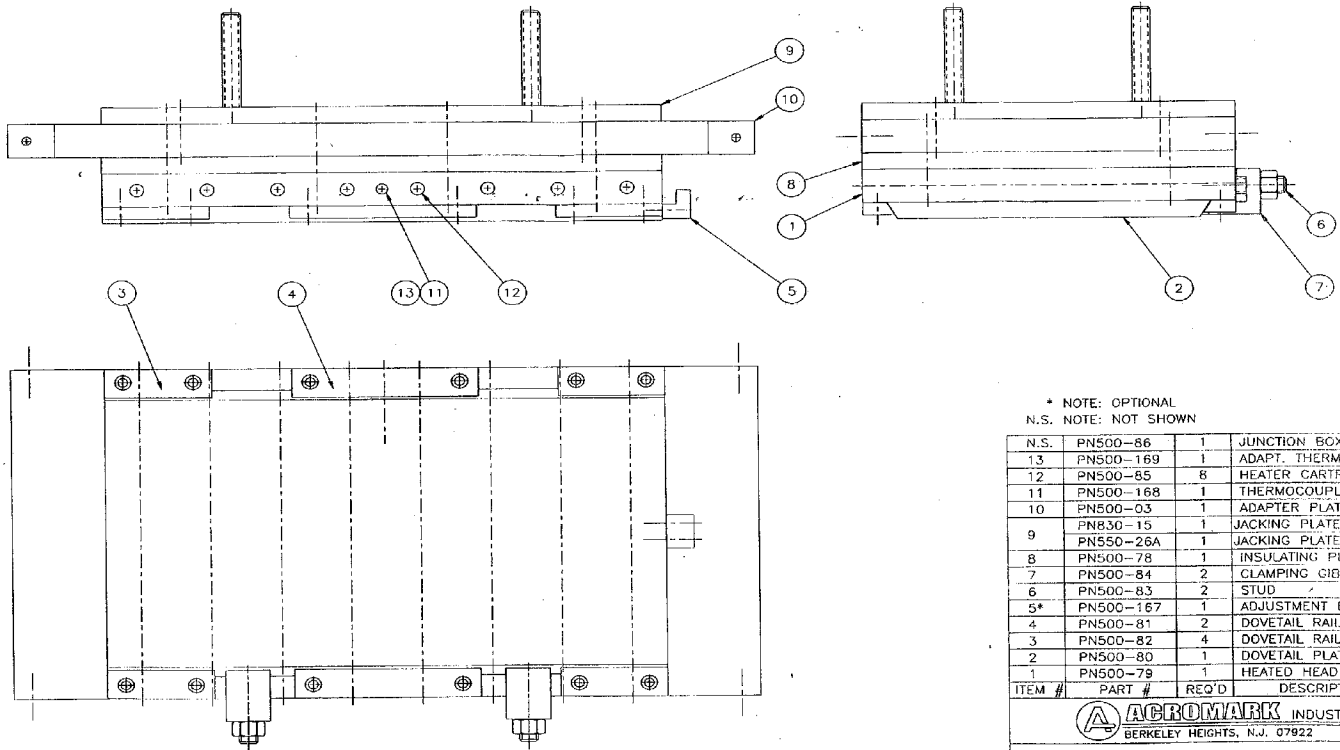


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PARTS LIST - PAYOFF ASSEMBLY 10.5"

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	SH5002930	PAYOFF SHAFT	1
2	COLL20010	PAYOFF SHAFT COLLARS	2
3	DI5001770	FOIL GUIDE DISC, 6" DIA.	2
4	SPRI20004	PAYOFF SHAFT SPRING	1
5	WR5001830	PAYOFF SHAFT COLLAR WRENCH	1
6	COLL20037	FOIL GUIDE COLLAR	2
7	BA5004090	HORIZONTAL FOIL GUIDE BAR	1
8	BA6801250	VERTICAL GUIDE BAR	2
9	RP00910	ROLL PIN	2
10	SPRI20005	FOIL GUIDE SPRING	2
11	COLL20003	FOIL GUIDE ADJUSTMENT COLLAR	2
12	BA5004110	VERTICAL GUIDE MOUNT BAR	1
13	BR5004060	PAYOFF RAIL MOUNT BRACKET	1
14	RA5004030	PAYOFF RAIL	1

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* NOTE: OPTIONAL
N.S. NOTE: NOT SHOWN

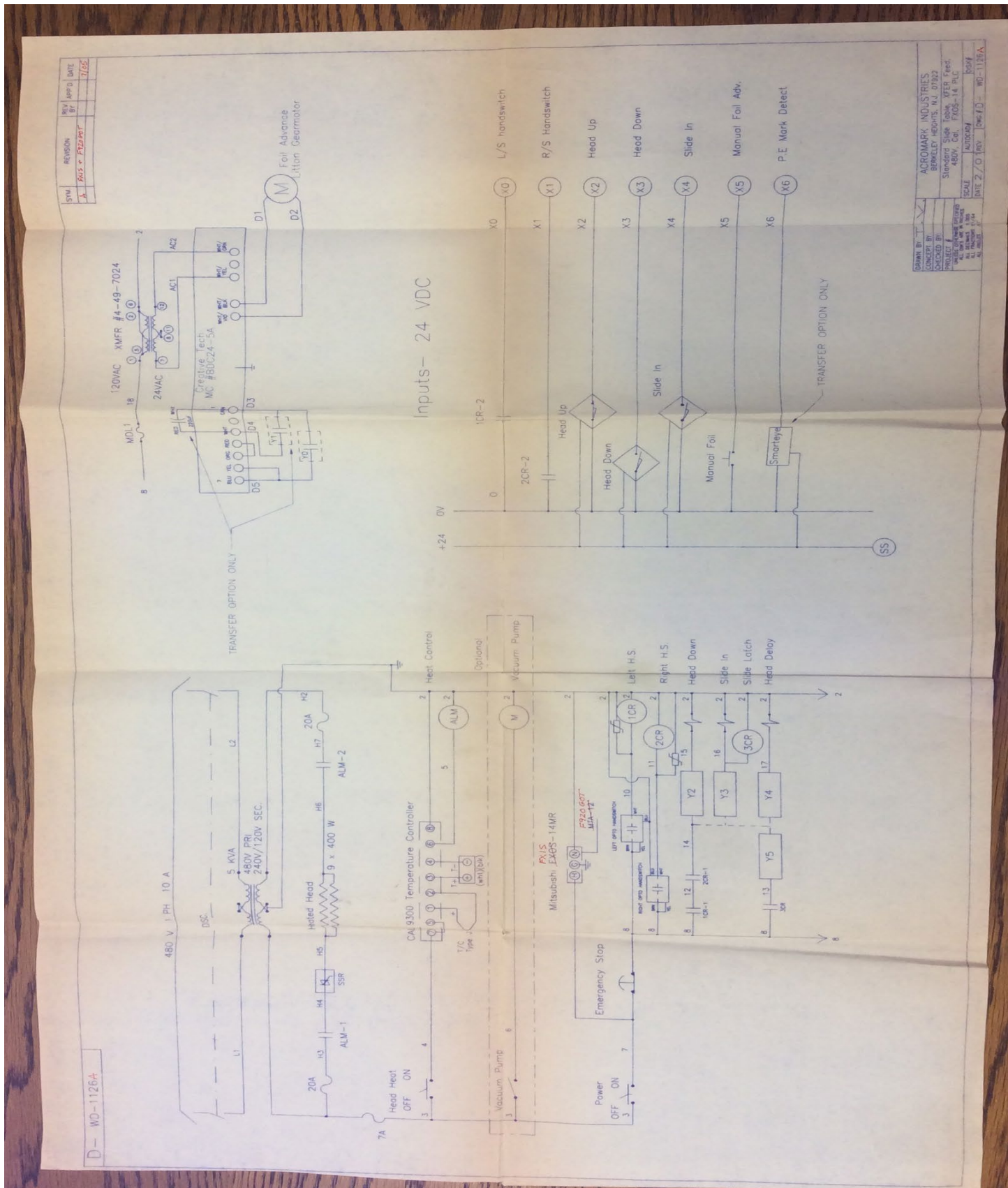
N.S.	PN500-86	1	JUNCTION BOX
13	PN500-169	1	ADAPT. THERMOCOUPLE
12	PN500-85	8	HEATER CARTRIDGE
11	PN500-168	1	THERMOCOUPLE
10	PN500-03	1	ADAPTER PLATE
9	PN830-15	1	JACKING PLATE 830/840
	PN550-26A	1	JACKING PLATE 550/590
8	PN500-78	1	INSULATING PLATE
7	PN500-84	2	CLAMPING CIB
6	PN500-83	2	STUD
5*	PN500-167	1	ADJUSTMENT BLOCK
4	PN500-81	2	DOVETAIL RAIL 5"
3	PN500-82	4	DOVETAIL RAIL 2 7/8"
2	PN500-80	1	DOVETAIL PLATE
1	PN500-79	1	HEATED HEAD 10x15
ITEM #	PART #	REQ'D	DESCRIPTION

 **ACROMARK** INDUSTRIES
BERKELEY HEIGHTS, N.J. 07922

150-HEATED HEAD ASSEMBLY
(10 X 15) PARTS LIST

DATE: 9/15/97 DWG# B-500-800P

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SYM	REVISION	REV APP'D	DATE
A	8605 x EZZZPPT		7/85

DESIGN BY	ACROMARK INDUSTRIES
CONCEPT BY	BERNARD HEDRICKS, N.J. 07922
CHECKED BY	Standard Slide Table XFER Feed.
PROJECT	480V CB, F10S-14 PLC
DATE	10/82
SCALE	1/16" = 1"
DRAWN BY	10/82
DATE	10/82
PROJECT	10/82
SCALE	1/16" = 1"
DATE	10/82