QUALITY

PRACTIX MFG. - U.S.A.

THROUGH INNOVATION

4400 Cantrell Road
Acworth, Georgia 30101
Phone: (770) 974-1480
Fax: (770) 974-1584

Table Of Contents

WARRANTY

Practix Mfg. LLC will replace free of charge, F. O. B. Purchaser's plant, within 365 days (1 year) from time of shipment to the original purchaser, any mechanical part, within six (6) months any electronic component, and within six months (6) on a prorated basis any belt found in our judgment to be defective. This Warranty is based on an eight (8) hour per day work/operating schedule.

This Warranty does not cover damage to the Machine or any part thereof found in our judgment to be the result of accident, negligence, or misuse. This warranty shall become ineffective if the product or component is altered by anyone other than Practix employees. Damage incurred in shipment should be reported to the designated carrier. It is his responsibility to ensure arrival in perfect condition.

This Warranty covers only labor and material. Expenses will be charged at cost. This warranty does not include installation of the product or component.

This Warranty is registered in the name of the original Purchaser and is non-transferable.

Practix Mfg. LLC will, in no case and under no circumstances, be liable for special or consequential damages, loss of profit or commission or for loss or delay in production.

Warranty will be non-redeemable if the balance on the Purchaser's account for the product is delinquent.

I have received and read this manual.

_____

Signature

PRACTIX MFG.
4400 Cantrell Road
Acworth, GA 30101
Phone: (770) 974-1480
Fax: (770) 974-1584

Mechanical Warranty Begins_____**through**_____

Electrical Warranty Begins_____**through**_____

WARNING!

At no time during the operation of the machine should any beverages or liquids be placed anywhere on the top of the Machinery to prevent injury from electric shock.

It is the responsibility of the Purchaser of this Machinery to train his personnel in the proper manner of operation.

It is further understood that Practix Mfg. assumes no responsibility for injuries, disabilities, or death resulting from the improper operation of, removal from the Machinery, or bypassing of any electrical or mechanical safety devices incorporated in the design and manufacture of this Machinery.

NOTE: During the first few hours of operation the Machinery will release fumes due to the normal curing of coating materials.

PRACTIX MFG.
4400 Cantrell Road
Acworth, GA 30101

We at Practix Mfg. appreciate your purchase of our product. Your new machine is built to perform flawlessly for years to come.

This Operations Manual should be referred to for the installation, operation, and maintenance of this machine. Regular maintenance will ensure a long and trouble-free service life.

Design and development of Practix Machines are subject to constant improvement. There is no obligation on our part to carry out improvements, free of charge, on machines already delivered.

For further questions concerning machine maintenance call:

PRACTIX MFG.
4400 Cantrell/Practix Mfg.
Acworth, GA. 30101
Telephone: (770) 974-1480
Fax: (770) 974-1584

Installation

Position the machine on a solid, level section of the floor before removing it from the skid.

NOTE: Leave sufficient clearance around the machine and unwind and rewind units (if applicable) for material movement and maintenance personnel.

1. The electrical connections be made by a certified electrician in accordance with local standards and electrical codes for 240 Volt- 3 Phase industrial equipment

2. Bring the power supply to the wall adjacent to the machine. Install a breaker.

3. Run conduit and wire to the ceiling and then down to the top of the machine. Connect to the main power distribution block on the electrical subpanel.

4. Bring air supply to the machine using hose or pipe.

In case of problems or questions, please contact Practix Mfg.

Leveling and squaring

1. Use a spirit level.

2. Plase the level first on the top steel tubing on the front of the machine. Adjust the legs as necessary

3. Place the level on the top steel tubing on the rear of the machine. Adjust the legs as necessary.

4. Place the level across the top of the machine from front to back on the left side of the machine. Adjust the legs as necessary.

5. Place the level across the top of the machine from front to back on the right side of the machine. Adjust the legs as necessary.

OPERATION

To energize the rotary transfer machine, move the switch marked MAIN SWITCH to the "RUN" position. Make sure to turn on the air. THE MACHINE WILL NOT START WITHOUT THE AIR TURNED ON.

Adjust the pressure regulator/filter/lubricator on the backside of the machine. Next adjust the pressure regulators on the control panel. The pressure regulator marked BELT TENSION should be set to according to the type o material being printed. Set the motor speed control to the desired speed. To start the conveyor, press the green START button. The belt should start to move, and the tracking system should keep the belt centered on the machine. If the belt fails to track, the machine will shut itself down before any damage can occur to the belt. When the belt is made operational, the heat control may be activated.

To heat the belt and drum, set the speed control to low speed setting. This will facilitate the heating of the drum quicker. This machine is equipped with one heating zone. The machine has main heaters that go the entire width of the machine and then has evening heaters on the left and right side of the drum to insure even heat the entire width of the machine.

Move the switch marked MAIN HEAT to the "ON" position. The temperature controller should activate. This machine is equipped with high technology solid-state temperature control. The temperature controller has been "tuned" for your specific machine to give the best-controlled temperature allowable on the machine. To set the temperature on the machine, press and hold the "*" button while pressing either the up or down arrow on the temperature controller to raise or lower the temperature. The indicator light on the temperature controller will flicker when the heaters are energized and stay on until the machine reaches its full temperature.

NOTE: FOR MORE DETAILED INSTRUCTION ON THE TEMPERATURE CONTROLLER, SEE THE TEMPERATURE CONTROLLER SECTION IN THE BACK OF THIS MANUAL.

When the machine reaches full temperature, the temperature controller indicator light will cycle on and off to maintain the desired temperature. If the heaters or temperature controllers do not energize properly consult the TROUBLESHOOTING section. After the machine has reached full temperature it is ready to be used for printing.

FIRST RUN

1. Run the machine cold.

2. Check the belt tracking.

3. Check speed regulation.

4. Turn on the heat and check the same functions.

5. If the machine is not functioning properly turn it off. Check the TROUBLESHOOTING section or the TRACKING section. If the problem cannot be corrected call Practix Mfg.

OPERATIONAL TESTING

The variety of speeds available with the OK-405R offers a higher production potential. The drum speed should be adapted to the lay-up rate. Heat and belt tension settings must be varied in proportion with the belt speed to obtain the proper printing quality. Although most print papers come with manufacturer's suggested printing specifications, a higher production rate and a more consistent product is usually obtainable by thorough testing.

A digital thermometer is designed to give an accurate reading of actual temperature on the drum. If there is a discrepancy between the actual drum temperature and the temperature controller shown temperature, then refer to the OMRON Temperature Controller Section of this manual. Temp Strips are also designed to provide a temperature test.

Suggested Digital Thermometer with Bow Probe

Practix Model No. 3879K83 (Digital Thermometer)
Practix Model No. 3863K91 (Bow Probe)

Temp Strips Selection Chart

Type	Temperature Range (^{0}C)	Order NO.
0	41-104	30/520SQ
1	104-143	30/521SQ
2	143-182	30/522SQ
3	182-224	30/523SQ
4	224-260	30/524SQ

SHUTTING OFF THE MACHINE

At the end of each working day when the machine is to be turned off it should be run though a 45 minute cool down with the speed at a high setting. To do this, move the MAIN SWITCH to the "AUTO" position.

It is not necessary to move any other controls. With the switch in the "COOL DOWN" position the heaters are automatically deenergized with all remaining functions preserved. When the timer runs out, the machine will shut itself off completely. To restart the machine move the MAIN SWITCH to the "RUN" position and start the conveyor.

SETUP OF UNWINDING AND REWINDING OF WEBBING

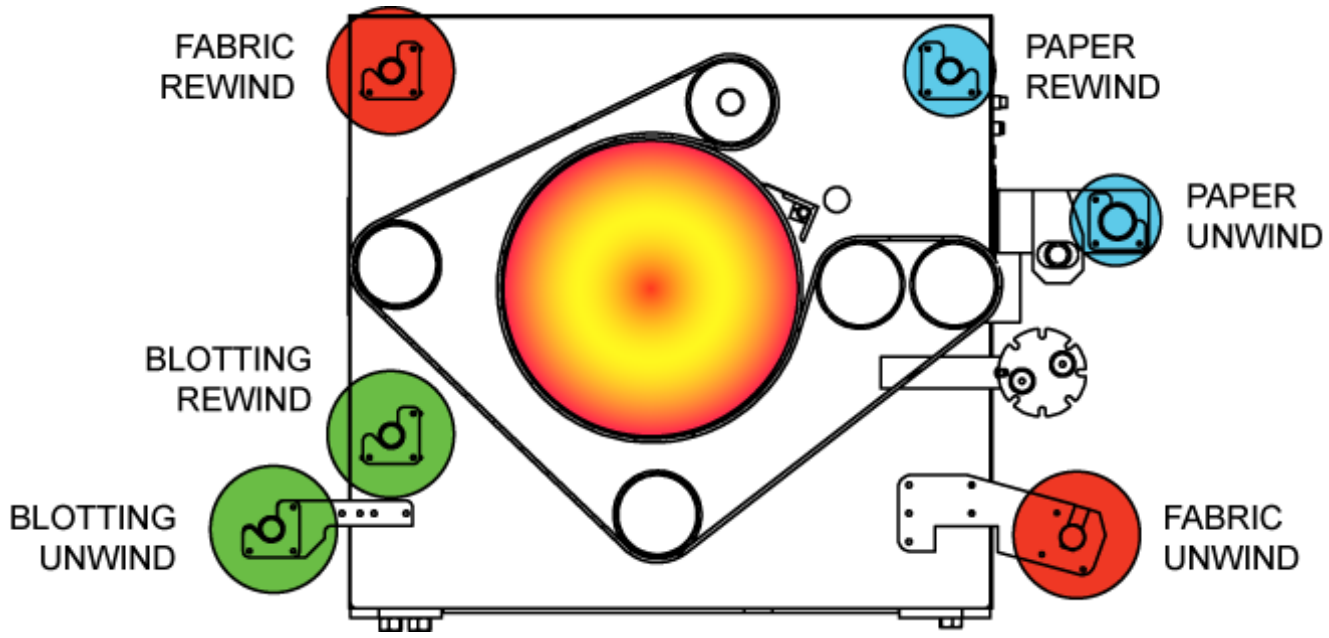
Using the Unwind Stations

First start the blotting paper through the machine. It should unwind over the small gray rollers and into the printing area between the printing drum and the nomex belt. Use the regulator on the main control labeled “UNWIND” to put tension on the paper as it goes through the machine. You may place as many boxes of goods in front of the machine as you wish. The narrow web goods should come from the boxes onto the lower guide shaft and then into the machine. Use the guide collars to set the location of the narrow web goods. There are two printing paper unwind shafts on the machine. Load one shaft at a time. The printing paper will go from the shaft onto the guide bar with the guide collars. Use the guide collars to track the printing paper into position over the web being printed.

Using the Rewind Stations

As the blotting paper comes through the machine, pull it around the roller and start it rewinding onto the rewind shaft. To increase the tension of the paper rewinding, use the regulator on the main control labeled “REWIND” to put tension on the paper as it comes through the machine. As the narrow web goods come printed from the machine, they should travel over the blue rollers into boxes placed directly under each of the five rollers. The waste printed printing paper should go over the kick rollers and into a waste paper can located under the end kick roller.

NOTE: FOR PROPER ROLL PLACEMENT THROUGH THE MACHINE ON REWIND AND UNWIND RODS, PLEASE SEE THE NEXT PAGE.



BELT REPLACEMENT

Nomex Belt

1. **DISCONNECT THE POWER TO THE MACHINE.**

2. Remove the covers from the sides of the machine. Remove the slot covers that cover drum removal slots.

3. Make sure the Nomex belt tension is off. After this is done, remove the setscrew from the underside of the gray tracking roller arm. This setscrew is accessible from the rear of the machine.

4. Due to the weight of the rollers, the next few procedures will require the use of two or more people. Lifting both sides evenly, slide the bottom rear-tracking roller from its housing and out of the machine through the drum removal slots.

5. Next slide the top rear idler roller out of its bearing housings. The roller will be removed again through the drum removal slots.

6. Remove the top front main idler roller from the top of the belt. This is done by simply lifting the roller forward then out of the belt.

7. Lift the front lower idler roller out of its housings and then out of the belt.

Install the replacement belt using the reversal of this procedure. Then read the Tracking Section of this manual to find out how to set the belt for the best results.

HEATER ROD REPLACEMENT

1. Remove the outside side covers from both sides of the machine.

2. Remove the drum removal slot covers from both side of the machine. Next remove the circular covers above the main bearing housings.

3. **THIS PROCEDURE CAN BE EXTREMELY DANGEROUS. USE EXTREME CAUTION!!** Next with the power on, rotate the drum with the speed control. Rotate the drum until the circular covers on the printing drum are accessible. Remove the screws and covers form both sides of the drum.

4. On one side of the printing drum, there is a notch in the side of the drum near the printing surface. Rotate the drum with the speed controller notch until it is accessible from the printing drum slot in the side of the machine. ELECTRICAL SHOCK HAZARD. Turn off teh power to the machine. Do not attempt to work inside the haeting chamber without the power disconnected to the machine. Lossen the two 3/8" allen bolts that hold the heater assembly through the compression clamp directly in front of the drum bearing housings. Carefully rotate the heater assembly until the burnt out heaters are in line with the notch in the drum side. DO NOT ROTATE THE HEATER ASSMBLY MORE THAN 1800 IN EITHER DIRECTION. THIS MAY CAUSE THE HEATER LEAD WIRES TO TWIST AND BREAK.

5. With a 3/8" or 10mm wrench, disconnect the burnt out heaters from the other heaters. TAKE NOTE OF HOW THE HEATERS ARE CONNECTED.

6. To remove a heater, the two set collars on the heater must also be removed.

7. Slide out the old heater and replace it with a new heater of the same type.

8. Replace the set collars on the heater in the same location as they were on the old heater. MAKE SURE THE HEATER ENDS ARE IN LINE WITH OTHER HEATERS AND NOT STICKING OUT FARTHER THAN THE OTHERS.

9. Replace the wires with new wires as they were previously.

10. THIS NEXT STEP IS VERY IMPORTANT!!! Slide the entire heater assembly so that the ends of the heaters are the same distance from the end of teh drum on both sides. Also rotate teh assembly so that the three balancing heatrs are facing the front of the machine. Tighten the 3/8" bolts on the compression clamps. One clamp will clamp down on the heaters assembly and teh other side should have wahers between the compression clamps. DO NOT REMOVE THE WASHERS. One side of the assembly must be fixed and the other must be able to expand freely.

11. Replace all covers onto the machine and test the machine for proper operation.

TRACKING SYSTEM

Two (2) limit switches monitor the position of the Nomex belt. When the belt tracks too far in one direction the limit switch picks up the movement, which activates the air cylinder bringing into, play the tracking roller shift.

NOMEX BELT: If the left (or right) tracking limit switch is activated, the air cylinder pushes the left side of the tracking roller either out or pulls it in. This causes the belt to reverse its motion of travel to the opposite side. Once the belt is tracking on center, the limit switch will return to neutral.

Tracking Adjustment

The machine sides must be removed for access to the tracking system. The machine is sent from the factory with belt tracking set for optimum operation. This procedure should only performed if the nomex belt is replaced and the new belt does not track well.

1. Check to see that the machine is still level on the ground with the use of a spirit level.

2. After running the machine a few minutes, notice if the belt tracks to one side rapidly. If it does not, the belt does not need to be adjusted. Keep in mind, however, that the better the belt is adjusted, the less wear the cylinders will endure and also the chance of wrinkling the fabric is minimized.

3. If the belt tracks rapidly to one side, adjust the bottom pivot block on the tension roller assembly. This shown on the following page.

4. After this is done, be sure to tighten all bolts that were loosened.

THERMAL FLUID

CHECK THE LEVEL OF FLUID IN THE EXPANSION TANK ON A DAILY BASIS.

There should be 2-3 inches of oil (or approximately halfway full in the sight glass) in the expansion tank when the machine is cold. The machine will evaporate or lose oil through pipe connections. Do not run the machine with a dry expansion tank. This will cause severe damage to the drum.

Analysis of the oil (Every 12 months)

The oil should be tested for proper composition on a yearly basis. A sample will need to be taken from the oil expansion tank and sent to us for examination. This test will determine the life of the oil and may show any other problems occurring with oil.

FILLING THE DRUM WITH NEW OIL

1. Rotate the drum so that the drain plug on the commutator side of the machine is in its top most position.
2. With the drain plug removed, fill the expansion tank with fluid.
3. Allow the fluid to drain into the drum.
4. Fill the drum until fluid flows from the drain plug. Immediately reinsert the drain plug and seal with high temp compound.
5. Fill the expansion tank so that there is 2-3 inches of fluid
6. Remove the drive latch relay from the subpanel in the left side of the machine. It is the small glass cube relay marked R1 on the drawing OK-12EL5 in the rear of this manual. This will allow you to heat the machine without having the drum rotating.
7. Turn the machine to run and set the heat to 250 degrees. Allow the machine to heat up. Let the machine heat at this temp for 15 minutes.
8. Reinsert the cube relay and allow the drum to turn for 2 revolutions. Again remove the relay when the drain is in the uppermost position.
9. Heat the machine to 300 degrees. Allow the machine to heat for 15 minutes. Replace the glass relay and set the speed for minimum.

The following steps can be performed only if the belt is off of the machine. If the belt is on the machine, plug the relay back in and heat the machine to 450 while running.

10. Heat the machine to 350 and allow the machine to heat for 15 minutes.
11. Heat the machine to 400 and allow the machine to heat for 15 minutes.
12. Heat the machine to 450 and allow the machine to heat for 15 minutes.

13. Cool the machine down to room temperature. Watch the level of fluid in the expansion tank. Be sure to have 2-3 inches in the bottom of the tank.
14. The next day, heat the machine in 100 degree intervals and allow the machine to turn for 15 minutes once the temperature has been reached.
15. Again cool the machine and check the oil level in the expansion tank.

MAINTENANCE

NOTE: We recommend a regular maintenance plan as outlined below. These maintenance points are considered a very minimum. Additional maintenance is left to the Owner's discretion.

1. Daily Maintenance/Cleaning

   Vacuum or blow off any visible dust and lint.

2. Weekly Maintenance

   A. Cleaning — Clean any buildup off of the scraper and rollers.
   Remove any visible accumulation of dust, lint, or resin.

   B. Spot-check electrical and mechanical components.

3. Monthly Maintenance

   A. Cleaning — Remove thread and lint deposits
   Remove dust and lint accumulation from pivot points.

   B. Lubrication — Lubricate bearings with fittings using Hi-Temp grease. All other bearings are greased for life.
   Lubricate drive chain.
   Lubricate all roller slide guides with fittings using Hi-Temp grease.
   LUBRICATE DRUM BEARINGS WITH HIGH TEMP GREASE!! ON COMMUTATOR SIDE YOU WILL HAVE TO REMOVE COMMUTATOR COVER.

BELT AND PNEUMATIC MAINTENANCE

Main Belt

1. Ink buildup on the Nomex belt should be avoided if possible since it may print back onto the fabric. Blotting paper should be positioned through the machine so that no printback occurs onto the nomex belt.

2. If the Nomex belt becomes worn or damaged, replacement may be necessary. Read the Belt Replacement section in this manual before attempting to change the belts.

Pneumatic System

1. Recommended pressure for the incoming airline is 100-110 psig.

2. The air actuated tracking pressure is displayed on the pressure gauge in the control panel. It works best at 40-50 psig pressure for proper tracking. Do not increase pressure above this level.

3. Set the pressure of the belt tension at approximately 80 psig. If the print is still “bleeding” then increase the pressure.

4. Check all air lines periodically for water and clean the main regulator/filter/lubricator weekly.

TROUBLESHOOTING

This section is provided for the identification and repair of items considered as field serviceable and is part of the maintenance of any machine. Problems falling outside the areas covered in this Manual should be first isolated as far as possible, then repaired only after consultation with your Dealer or our service department.

Problem	Check List
1. Main controls fail to energize	a. Electrical power supply b. Control fuses c. Incomplete circuit
2. Heaters fail to energize with main controls energized	a. main fuses b. Solid state relays c. Thermocouple probe d. Temperature controller e. Incomplete circuit
3. Heaters energize but fail to come up to temperature	a. Incorrect line voltage b. Thermocouple probe c. Temperature controller faulty d. Temperature controller calibration off e. Heater element f. Incomplete circuit
4. Incomplete Circuit	a. Drive motor fails to energize b. Motor power supply c. Motor speed setting d. Motor console fuse e. Motor
5. Belt fails to move with motor energized	a. Tension roller fails b. Chain drive
6. Belt fails to track properly	a. Bad solenoid b. Fuse c. Squaring of machine is off d. Leveling inadequate

OMRON E5GN

To Set Temperature Desired on the Controller

Depress up or down arrow keys. Setpoint temperature is in the lower right corner.

To Recalibrate Controller (i.e. controller display temperature is different than actual temperature.

Press  (gray button) once. AT OFF is displayed

Press  until in5 is displayed. Input value of the difference with up and down arrow keys.

Press  once to return to display temperature.

To Tune Controllers

Press  once. AT OFF is displayed.

Press up arrow once. AT ON is displayed. Allow machine to run. Will take 10 minutes to 1 hour.

AT OFF is displayed when the controller is finished.

Press  once to return to display temperature.

Speed Controller (Frequency Inverter) Initial Program

After power on, press the “M” button once.

The screen will show “PASS” briefly and then 0000. Using the up and down arrows enter a number of 0225. This is the password. Press the “M” button again. “P100” should be shown on the screen.

Use the up and down arrow button to jog through the different parameters.

To change a parameter value, jog to the desired parameter, press the “M” button. Use the up and down arrow buttons to enter the desired value. Press the “M” button to enter the value into memory. The screen will return to the display mode. Press the “M” button again to get back into the parameter mode.

Below is listed a parameter value chart of all required parameters needed for the Practix OK-12 (AC Tech/Lenze).

P100……1
P102……7.5
P104……1.0
P105……1.0
P107……**0 OR 1**
P110……1
P111……2
P112……1
P121……10
P150……1
P152……45
P178……***0.2,0.6,0.9***
P400……1

** Note: P107 should be 0 for 208V or 400V systems and 1 for 240V and 480V systems

*** Note: P178 should be adjusted for each particular machine. This parameter is a scale value to show feet per minute drum speed on the display.

After these parameters are entered into the memory, use the “M” button to return to the speed indicator screen.

THE ABOVE PROCEDURE SHOULD ONLY BE PERFORMED AFTER CONSULTING PRACTIX MFG.