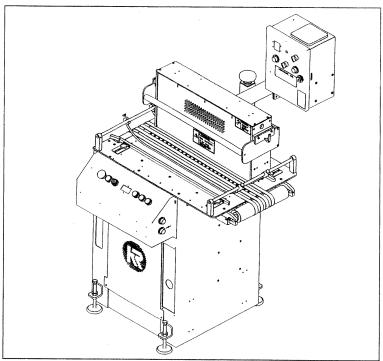
Kirk-Rudy, Inc. Parts Manual KR319D DRYER BASE



Manufactured by Kirk-Rudy, Inc.

Before using this machine, all operators must study this manual to understand and follow the <u>safety warnings and instructions</u>. Keep these instructions with the machine for future reference. If you have any questions, contact your local Kirk-Rudy, Inc. Distributor.

10000-319D REV. 3 10/21/2004

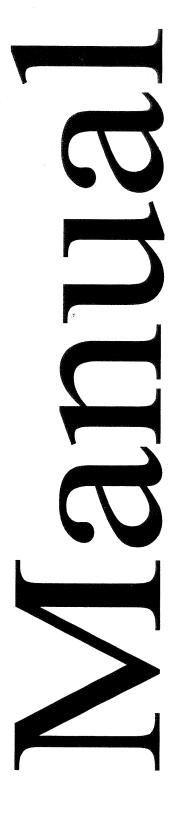


TABLE OF CONTENTS

<u>SECTION</u>	DESCRIPTION	<u>PAGE</u>
1	IMPORTANT SAFETY INSTRUCTIONS	3
2	SPECIFICATIONS	4
3	INSTALLATION	5
4	OPERATING INSTRUCTIONS 4.1 BASE ELECTRICAL OPERATION 4.1.1 OVERVIEW OPERATOR CONTROL 4.1.2 ELECTRICAL COMP. DESCRIPTION 4.2 BASE MECHANICAL OPERATION 4.2.2 DRYER SETUP & USAGE	··=
5	MAINTENANCE 5.1 DAILY FUNCTIONS OF OPERATOR	8 8
6	PARTS LISTS AND DIAGRAMS 6.1 PARTS LIST 6.2 DIAGRAMS	9-10 11
7	ELECTRICAL SCHEMATICS AND PARTS 7.1 SCHEMATIC LIST 7.2 PARTS LIST	12 12-13
8	APPENDIX	14
9	NOTES	15
10	WARRANTY AND SERVICE INFORMATION	INSIDE BACK COVER

NOTE: FIGURES AND DIAGRAMS ARE NOT INCLUDED IN PAGE NUMBERS.

1 Important Safety Instructions

<u>Intended Use Statement:</u> The 319D is a vacuum tabletop conveyor machine designed for use with KR881-1,2,3 Dryers. Usage for other purposes may lead to unsafe condition.

SAVE THESE INSTRUCTIONS. Read all instructions before using this product.



WARNING

- * NEVER OPERATE THE MACHINE WITHOUT ALL GUARDS OR SAFETY DEVICES IN PLACE.
- * ALWAYS TURN POWER OFF WHEN MAKING ADJUSTMENTS.
- * ALWAYS DISCONNECT THE POWER SUPPLY BEFORE ANY MAINTENANCE OR SERVICE WORK.
- * NEVER START THE MACHINE WITHOUT FIRST CHECKING ALL PERSONNEL ARE CLEAR OF MOVING PARTS.
- * KEEP FINGERS CLEAR OF ALL MOVING PARTS.
- * NEVER REMOVE THE PRODUCT FROM THE MACHINE WHILE MACHINE IS RUNNING.
- * SHOULD MISFED PRODUCT JAM THE MACHINE AND STOP IT FROM RUNNING, ALWAYS PRESS THE STOP BUTTON BEFORE CLEARING PRODUCT. IF THE STOP BUTTON IS NOT PRESSED AND THE JAM IS CLEARED, THE MACHINE WILL BEGIN RUNNING.
- * IT IS NOT RECOMMENDED THAT LOOSE CLOTHING, JEWELRY AND LONG HAIR BE WORN WHILE OPERATING THIS MACHINERY.
- * ALWAYS USE AN EXPERIENCED ELECTRICIAN WHEN TROUBLE-SHOOTING ELECTRICAL PROBLEMS.
- * CHANGES OR MODIFICATIONS TO THIS UNIT NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

2 SPECIFICATIONS

ELECTRICAL

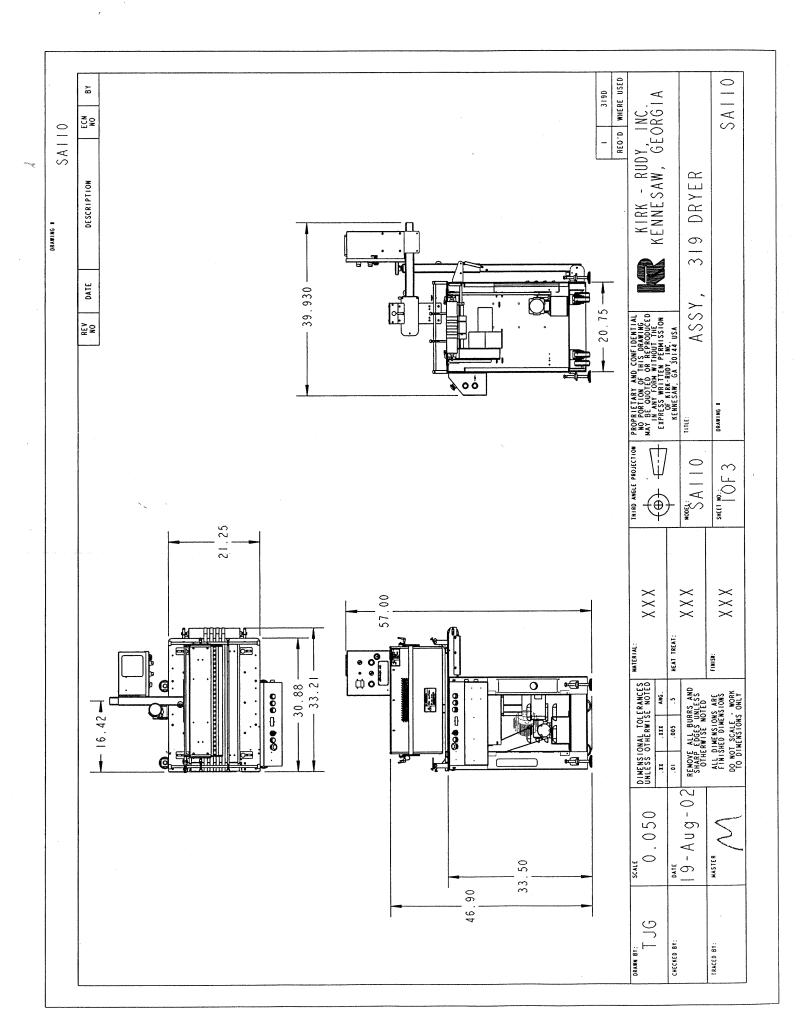
110 VAC, 50/60Hz, Single Phase, 15 amp

PHYSICAL SIZE	<u>ENGLISH</u>	<u>METRIC</u>
Length:	32.25"	82 cm
Width:	40.81"	103.7 cm
Height: (TABLETOP)	33.5"	85 cm
Weight:		

Shipping:

PRODUCTS

Minimum Size: 3"W X 5"L Maximum Size 15" W X 9" L



3 INSTALLATION

3.1 UNCRATING AND UNPACKING



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

The machinery is crated. Remove machines and all packaging from crates. <u>Note:</u> Some boxes are located inside the base cabinet.

Note: A forklift should be used to lift machine form pallet.

The Base is mounted on rollers.

3.2 ACCESSORIES AND SPARE PARTS

The accessories and spare parts are packaged and located inside the base cabinet. The box should be opened and checked against the enclosed packing list.

3.3 ASSEMBLY OF BASE

NOTE: Read all Safety and Operating Instructions contained in this manual before beginning operation and assembly.

- 1. Locate machine in final location and mount the (4) 4" leveling screws and pads on the corners of the machine.
- 2. Locate and attach electrically the dryer. Dryer **must be** externally powered.

4 OPERATING INSTRUCTIONS

4.1 BASE – ELECTRICAL OPERATION

4.1.1 OVERVIEW OPERATOR CONTROLS



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

The following controls are located on the operator side of the feeder base. (FIG. 1 & 2)

Main Power Off Switch: This switch cuts power to the entire machine. Twist to unlatch.

<u>Main Power Switch:</u> When this two-position switch is depressed, source voltage is supplied to the electrical panel. This will make all of the switches on the electrical control panel active.

Indicator Lights:

#1, Red Main power is on.

Stop Switch (red): Machine operation can be manually stopped by depressing the stop button on the operator panel.

<u>Jog Switch (black)</u>: The machine can be inched or jogged by depressing and releasing this switch. The machine will continue to cycle if this button is held depressed.

<u>Start Switch (green)</u>: Continuous machine operation is achieved by depressing this switch momentarily and releasing.

<u>Speed Control, Table Conveyor:</u> The first knob controls the speed of the belts on the dryer table. This speed should be set slightly greater than the ink jet conveyor speed. Turn knob clockwise to increase belt speed, counterclockwise to decrease.

4.1.2 ELECTRICAL COMPONENT DESCRIPTION

Safety Features, Electrical: All devices are fully protected as follows:

- Dryer Table Drive Motor: The conveyor drive board has a 12ABC and 2AGC fuse.
- Vacuum Blower Motor: Mounted on the inside of the electrical panel is a 3.2 MDL fuse.

Plug Interfaces:

Stop out: 2 pin male twist

Dryer Enable: 24 VAC, 3-pin twist

Stop in: 2-pin turck

4.2 MECHANICAL OPERATION

4.2.1 Dryer Arm Setup & Usage (FIG 4)



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding. Dryer surface maybe hot. Read and follow dryer manufactures manual before proceeding.

<u>Height Adjustment:</u> The height of the dryer can be adjusted using the wheel on the top of the dryer Arm. First loosen the clamp screw on the vertical tube of the dryer arm. Next, turn the crank clockwise to move the dryer down or counter clockwise to move the dryer up. Retighten clamp screw when dryer is at desired height.

<u>Left/Right Adjustment:</u> The left/right position of the dryer can be adjusted by loosening the clamp screw on the horizontal tube, continue to hold the clamp screw handle and slide the dryer in and out. Retighten clamp screw when dryer is at desired location.

<u>Clearing Jam Under Dryer:</u> Use handle to push dryer arm back approximately 15 degrees. Dryer arm will remain back so jam can be cleared. **Note: On Research Dryers** (Dryer will automatically turn off in the back position.) Pull on handle to position the dryer back over the conveyor for normal operation.

<u>Horizontal Tube Removal:</u> The inside horizontal tube has a paw stop to prevent the dryer from being pulled out too far. The spring-loaded paw will automatically stop the tube at the end of its stroke. The spring-loaded paw automatically resets when the tubing is pushed in the opposite direction. To remove the horizontal tube, follow these steps:

- 1. Remove dryer from dryer bracket.
- 2. Loosen horizontal clamp screw.
- 3. Slide tube out until the paw stops it.
- 4. Use allen wrench to push paw up and out of the hole located on the bottom of the larger horizontal tubing, at same time pull inside tubing out.

5 MAINTENANCE

5.1 DAILY FUNCTIONS OF OPERATOR



WARNING

Read and follow all Safety Instructions in Section 1, Page 3 before proceeding.

Daily Functions of Key Operator KR319R		
Item	Function	Remarks
Vacuum Blower for Dryer Table	Remove foreign material.	Open bottom hinged door on vacuum chamber and remove all foreign material.

6 PARTS LISTS AND DIAGRAMS

6.1 PARTS LIST

Item	Qty	Part#	Description
1	1	100257	BUSHING, SL1.000ID1.250OD.750LG
2	2	100326	BUSHING, FL1.000ID1.250OD.750LG
3	2	102212	COLLAR 1.000
4	1	102217	COLLAR 1.000
5	2	102562	SHIM, .25X.500X.062
6	4	103804	BEARING, HUB .625
7	8	105419	DOWEL, PIN .188X1.000
8	2	107005	BOLT, SHOULDER 1/4X3/4
9	1	109319	PULLEY, TIMING 32L050 .625B .188K
10	1	109953	TIMING PULLEY, 12L050, NO HUB
11	4	190634	FOOT, MOUNTING
12	2	190669	CASTER, 3.500 RIGID
13	2	190670	CASTER, 3.500 SWIVEL
14	1	190804	GAS SPRING
15	4	191002	ANGLE, LEVELING LEG SUPPORT
16	4	191004	LEG, BASE ASSEMBLY
17	1	200129	BLOWER, FAN
18	1	201121	BUTTON, START
19	1	201122	BUTTON, STOP
20	1	201123	BUTTON, JOG
21	1	201145	SELECTOR, 2 POSITIONS
22	2	209016	KNOB, POT
23	1	500823	SHAFT,IDLER ROLLER
24	1	500835	ROLLER, BELT IDLER
25	2	500836	HUB
26	2	500839	HUB-BELT DRIVE
27	1	503734	THREADED ROD, 3/4-10
28	1	503736	HUB
29	4	106229	BELT, HEAT 3/4 X 68.75
30	1	108988	BELT, TIMING 540L050
31	1	200170-2	MOTOR, 1/8HP DC GEAR
32	1	201049-2	MICRO SWITCH
33	1	201124-1	BUTTON, POWER
34	1	201125-2	BUTTON, MUSHROOM STOP
35	2	500725-13	GUIDE, BELT 3/4
36	1	500725-17	GUIDE, BELT
37	1	500742-4	ROLLER, TUBE BELT DRIVE
38	1	500824-7	SHAFT-BELT GUIDE
39	4	501812-1	LEG, LEVELING
40	1	528247-2	BOX, CONTROL
41	1	530441-01	BOX, ELECTRICAL INLET 20A
42	1	531024-03	PANEL, INFEED END

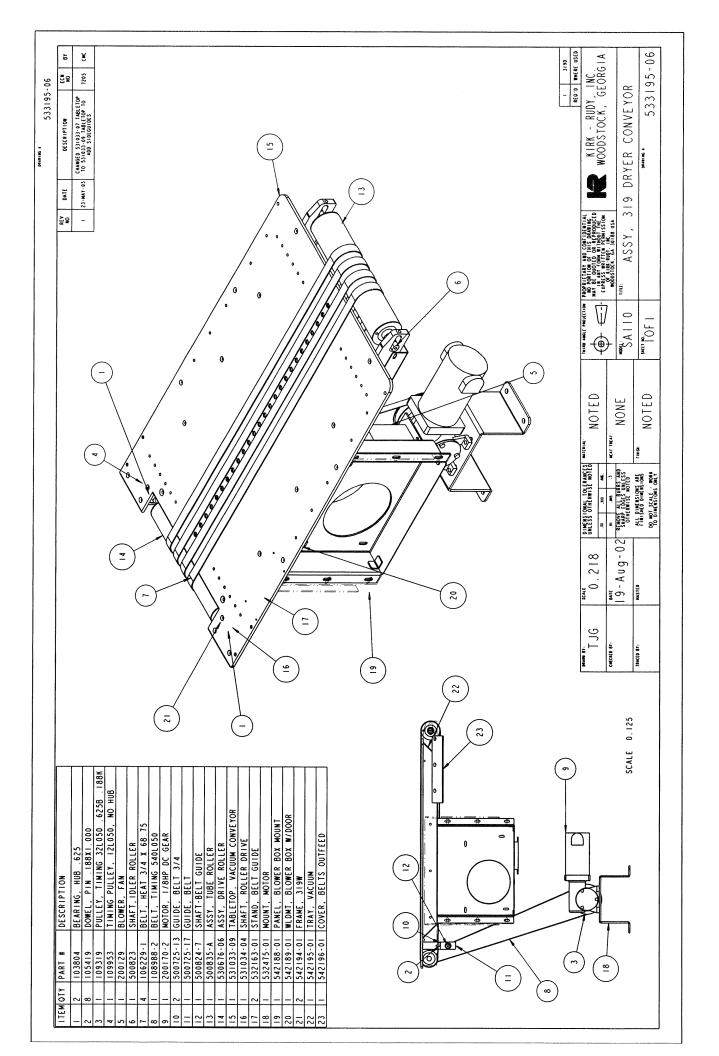
- 43 1 531025-03 PANEL, OUTFEED END
- 44 2 531026-03 ANGLE, CROSS SUPPORT
- 45 1 531027-02 BASE, CABINET
- 46 1 531028-11 PANEL, ELECTRICAL
- 47 1 531028-14 COVER, BACK 319D
- 48 1 531033-07 TABLETOP, VACUUM CONVEYOR
- 49 1 531034-04 SHAFT, ROLLER DRIVE
- 50 1 531987-02 PNL, ELECT. OUTLET CVR.
- 51 1 532126-01 BLOCK, THREADED
- 52 2 532129-01 BLOCK, LOCK DOWN
- 53 2 532163-01 STAND, BELT GUIDE
- 54 1 532165-01 PLATE, DRYER MOUNT
- 55 1 532452-01 BRACKET, GAS SHOCK
- 56 1 532465-01 BRACKET, DRYER ARM PIVOT
- 57 1 532467-01 SHAFT, DRYER PIVOT
- 58 1 532468-01 SHAFT, DRYER STOP
- 59 1 532470-01 BLOCK, PAW PIVOT
- 60 1 532471-01 LEVER, PAW
- 61 1 532472-01 SHAFT, GAS SPRING MOUNT
- 62 1 532473-01 BOX, AIR DUCT
- 63 1 532475-01 MOUNT, MOTOR
- 64 1 532735-02 TUBING, CROSS OVER
- 65 1 532737-01 BLOCK, ROD MOUNT
- 66 1 532740-01 TUBING, BASE
- 67 1 532741-01 TUBING, BASE
- 68 1 532742-02 TUBING, CROSSOVER SLIDE
- 69 1 533006-01 HANDWHEEL
- 70 1 533191-01 PLATE, STOPPER MOUNT
- 71 1 533192-01 SHAFT, SPACER
- 72 1 533712-02 SHAFT, DRYER HANDLE
- 73 1 533713-01 BRACKET, SENSOR
- 74 1 534689-02 PLATE, CONTROL BOX MOUNTING
- 75 1 538719-01 PLATE, DRYER SLIDE MOUNT
- 76 2 538720-01 PLATE, SINGLE DRYER SLIDE
- 77 1 538734-01 BRACKET, SINGLE DRYER MOUNT
- 78 1 538791-01 CLAMP, CONDUIT
- 79 1 542188-01 PANEL, BLOWER BOX MOUNT
- 80 1 542190-01 BRACKET, BLOWER MOUNT
- 81 1 542191-01 DOOR, BLOWER BOX
- 82 2 542192-01 BRACKET, L DOOR STOP
- 83 2 542194-01 FRAME, 319W
- 84 1 542195-01 TRAY, VACUUM
- 85 1 542196-01 COVER, BELTS OUTFEED
- 86 1 NUT NUT, 3/4-10

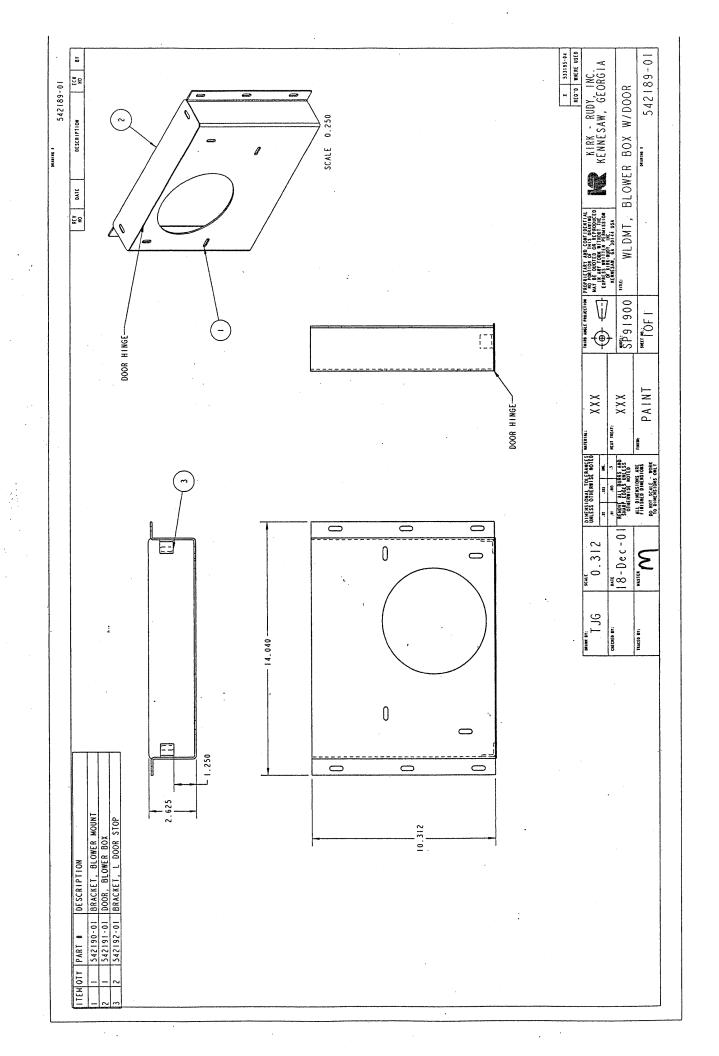
Diagrams are shown in order as indicated below. Sub-assemblies are indented under the main assembly.

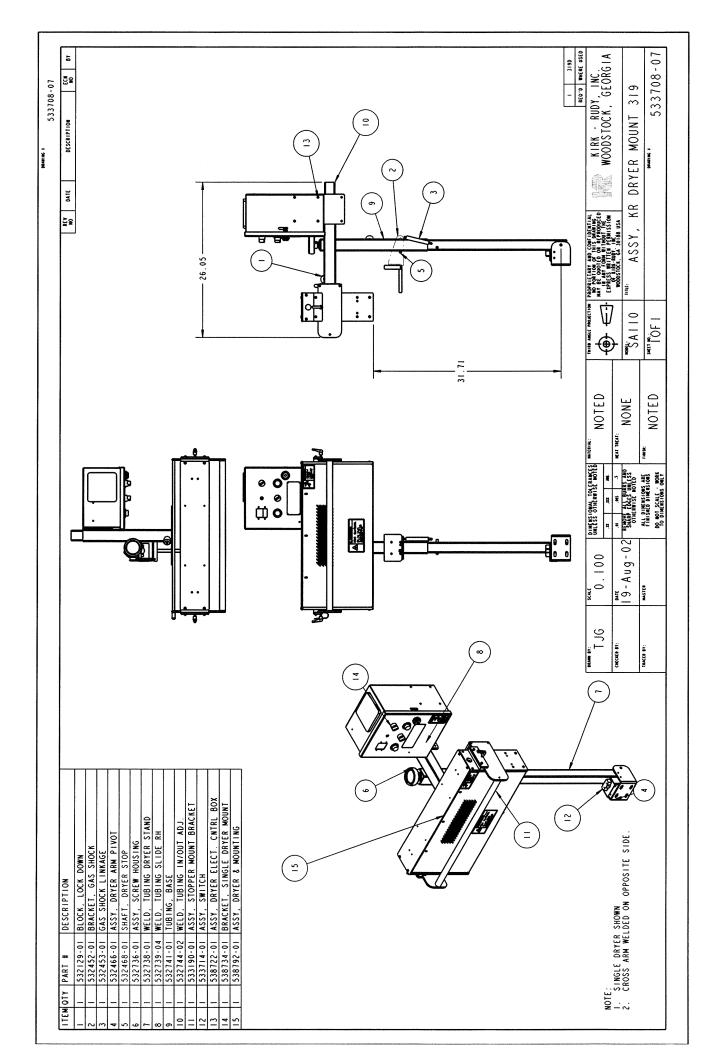
6.2 DIAGRAMS

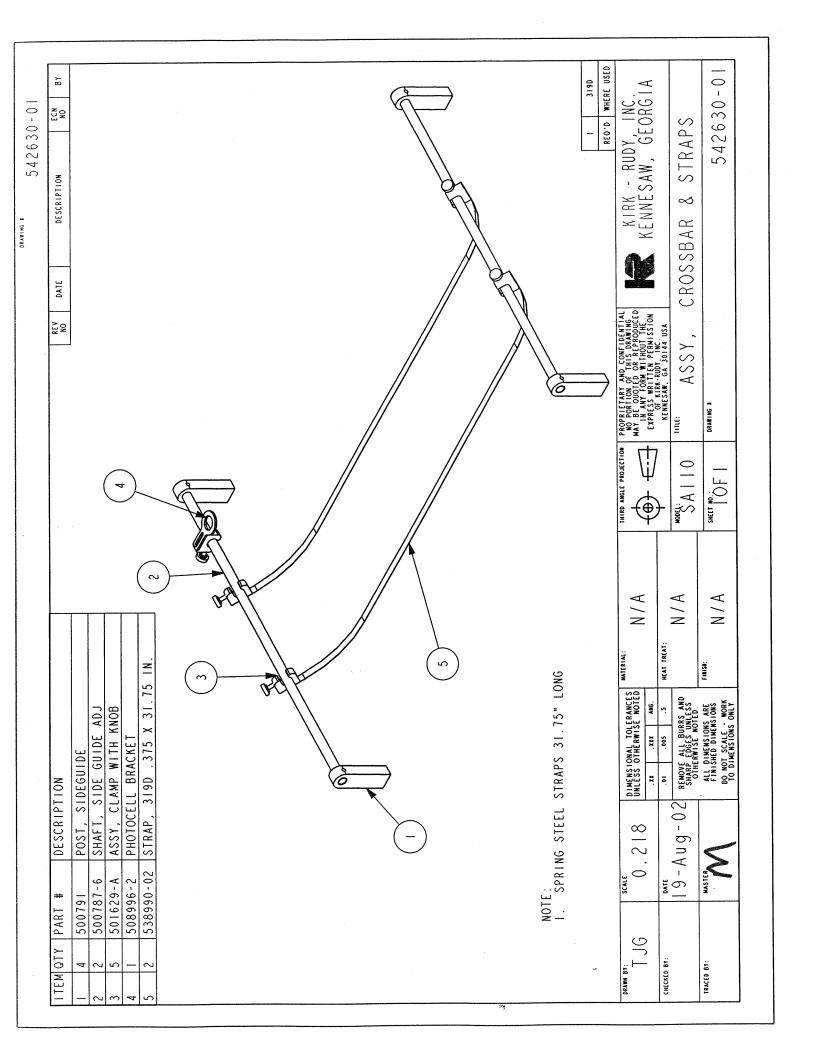
DIAGRAM #	DESCRIPTION
319D	ASSY, 319 DRYER
533195-06	ASSY, 319 DRYER CONVEYOR
538058-02	ASSY, SIDEGUIDE
542189-01	WLDMT, BLOWER BOX W/DOOR
533196-06	ASSY, CABINET & COVERS DRYER
533708-07	ASSY, KR DRYER MOUNT 319
542630-01	ASSY, CROSSBAR & STRAPS

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7 ELECTRICAL SCHEMATICS AND PARTS

7.1 SCHEMATIC LIST

The following wiring diagrams are included in the manual packet for your reference. 200-178-03-03 319D

7.2 PARTS LIST

KR Part #	Qty	Description
200129	1	Blower, Dayton 4C942-120V
201127	1	Switchplate, Start
201128	1	Switchplate, Stop
201129	1	Switchplate, Jog
201528	1	Receptacle, 3 Pin Flanged Twist
201533	1	Inlet 7466, 2 Pin Flanged Twist
201540	1	Receptacle, 2 Pin Turck RKF 20
202277	4	Socket, Relay 8 Pin
202291	6	Relay, 24 VAC
202426	2	KB-Board 120VAC
202427-1	1	Resistor .05"
203022	1	Transformer B050-0021-GA
204318	1	Kit, Potentiometer 4158
208009	2	4 AGC Fuse
208045	2	Fuse 2 MDL F2
208023	1	12 ABC Fuse
208056-15	1	Fuse 1.25 LP-CC F1
208056-4	1	Fuse 4 LP-CC F3
209016-2	2	Knob, Pot
209233	8	Terminal UK 10
209234	5	Terminal UK 16
209237	1	Terminal Ground
209245	1	Holder, Fuse 24V
203142	2	Holder, Fuse 120/220V
200170-2	1	Motor, Leeson 1/8 hp
201124-3	1	Button, Power On w/ Light
201125-6	1	Button, Stop
201125-7	1	Button, Power Off
201126-1	1	Button, Jog

201131-1	3	Contact NC
201145-1	1	Selector, 2 Position
201160-3	1	Inlet Meltric 20A 125V
201161-3	1	Connector, Male Meltric 20A 125V
202427	1	Resistor .1"

8 APPENDIX

(THIS PAGE LEFT BLANK FOR FUTURE REFERENCES)

9	NOTES
Water control	
Marie Control	

10 WARRANTY AND SERVICE

WARRANTY

Warranty: Kirk-Rudy, Inc., warrants to the original retail purchaser that this product is free from defects in the material and workmanship, and agrees to repair or replace, at Kirk-Rudy's option, any defective product within (90) days from the date of purchase. This warranty is not transferable. It covers damage resulting from defects in material or workmanship, and it does not cover conditions or malfunctions resulting from normal wear, neglect, abuse or accident.

THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES ANY IMPLIED WARRANTY OF MERCHANTABLITIY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE.

Limitation of Remedies: If product is proven to be defective within the warranty period stated above, THE EXCLUSIVE REMEDY, AT KIRK-RUDY'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE PRODUCT, provided that the defective product is, at Kirk-Rudy's choice, returned immediately to Kirk-Rudy or authorized service representative designated by Kirk-Rudy, or made available at user's premises in a location suitable for servicing.

Limitation of Liability: Kirk-Rudy shall not otherwise be liable for any losses or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal or equitable theory asserted, including contract, negligence, warranty, or strict liability.

To obtain replacement parts and service, contact an Authorized Kirk-Rudy Dealer. Use Kirk-Rudy part numbers when ordering.

USE ONLY GENUINE KIRK-RUDY REPLACEMENT PARTS

KIRK-RUDY, INC 125 LORRAINE PARKWAY WOODSTOCK, GA. 30188