RESERVOIR UNIT PARTS (continued)

Key	Part	Qnty	Part Name				
No.	Number	Used	or Description of Item				
Following Parts are Common to all Reservoir Units							
06 07 08 09 10	NUT-062 RGO-060 OUT-010 FIT-058 NUT-161	1 1 1 1	NUT, Jam: 3/4-16 UNF RING, Seal: "O" type OUTLET, Drain: reservoir FITTING, Plug: 3/8" pipe NUT, Special: jam				
11	RGO-056	1	RING, Seal: "O" type				
12	OUT-040	1	OUTLET, Fluid: reservoir				
13	FIT-057	2	FITTING, Elbow: barbed				
14	FIL-018	1	FILTER, Fluid:				
15	NUT-058	2	NUT, Hexagon: 3/8-24 UNF				
16	RGO-030	2	RING, Seal: "O" type				
17	INL-026	1	INLET, Sight: top				
18	RGO-013	2	RING, Seal: "O" type				
19	OUT-009	1	OUTLET, Sight: bottom				
20	RGO-034	1	RING, Seal: "O" type				
21	PLG-026	1	PLUG, Sight: bottom				
22	BRK-072	4	BRACKET, Threaded:				
23	RGO-017	4	RING, Seal: "O" type				
24	WAS-003	6	WASHER, Flat: 1/4"				
25	NUT-057	4	NUT, Hexagon: 1/4-28 UNF				
26 27 28 29 30	NUT-104 BRK-039 ADP-073 NUT-063 SCR-075	4 1 1 2	NUT, Hexagon: self lock BRACKET, Mounting: air inlet ADAPTER, Fitting: air inlet NUT, Special: jam SCREW, Cap: 1/4-20				

Key	Part	Qnty	Part Name
No.	Number	Used	or Description of Item
31 32 33 34 35	FIT-112 FIT-036 REG-013 GAU-001 FIT-111	1 1 1 2	FITTING, Elbow FITTING, Nipple REGULATOR, Air GAUGE, Air FITTING, Adapter: 1/4" NPTx3/8" Push In
36	BLK-005	A/R	TUBING, Plastic: 3/8" O.D.
37	FIT-108	2	FITTING, Adapter: 1/4 NPT" X 1/2" OD Tube
38	BLK-005	A/R	TUBING, Bulk: 1/2" O.D.
39	WAS-001	6	WASHER, Lock
40	SCR-105	2	SCREW, Cap: 10-24
41	SCR-108	4	SCREW, Cap: 10-24
42	VAL-009	1	AIR, Mechanical
43	FIT-107	2	FITTING, Adaptor:1/8" NPTx3/8 Push In
44	VAL-008	1	VALVE, Solenoid
45	ZCN-013	1	CONNECTOR VALVE, 3 Prong
46	SCR-107	2	SCREW, Button Hd #8
47 48 49 50 51 52	WAS-024 FIT-103 BLK-001 TUB-017 FIT-086 FIT-109	2 2 A/R 1 1	WASHER, Lock FITTING, Connector: 1/8" NPT X 1/4" Tube TUBING, Bulk: 1/4" O.D. TUBING, Plastic; 1/2" I.D. FITTING, Barb FITTING, Elbow: 1/8" (M) (F)
" C "	FC-7310	1	Transfer Pump: see NOTE below

-NOTE: -

See the supplemental **INSTRUCTION BOOKLET** supplied for the "FC-7310" Pump (key # "C" above). It provides detailed information on the pump's usage, and includes an exploded view and parts listing.

TROUBLESHOOTING INSTRUCTIONS SOLUTIONS PROBLEMS I. No lubricant to any of the rolls. A. Check the controller. 1. Hold hand on solenoid to feel actuation when controller receives a signal. If solenoid does not receive a signal. a. Solenoid may be bad b. Proximity switch may be misaligned or broken. c. Controller may be broken and not receiving or sending a signal. B. Check the diaphragm pump. 1. Air pressure may have been lost. 2. Diaphragm pump may be hung up II. The coil stock is coming out or the A. One of the manifolds is plugged. FloaterCoater with dry stripes . 1. Remove the tube from the manifold. 2. Remove the fitting from the manifold. 3. Blow air in the reverse direction that the lubricant flows. 4. Check and make sure that the hole is free and reassemble the lines. III. Lubricant continues to flow A. Check the solenoid to see if it has to be replaced. in between cycles & in the rest mode. B. Check the controller to see if it is broken and in the open position. IV. Lubricant has become gummy in A. Remove rolls, clean and purge the FloaterCoater with water or solvent. the FloaterCoater. B. Clean the rolls and reassemble the FloaterCoater. This is caused when changing from oils or water solubles to synthetics. To avoid this problem, purge the system prior to filling with lubricants that are incompatible. V. Not enough lubricant being A. Is the controller set to stay open long enough to get a complete coating on each cycle of the feeder. dispersed onto the coil stock. B. Smooth rolls give the finest coating, A course roll will leave a much heavier coating. A. If large quantities of lubricant is being returned to reservoir, the open time on the VI. Too much lubricant being dispersed controls is ope for too long a time. on the coil stock. B, Try a smooth roll to reduce the amount of lubricant transferred to the coil stock.



INSTALLATION INSTRUCTIONS

A. Locating the COATER UNIT

The COATER UNIT should be located so the STOCK to be coated will pass through the centers (both width and height) of its opening. The COATER UNIT must be oriented so the STOCK enters its front side (that side labeled with instructions and logo).

Good results may be had with the STOCK somewhat offcenter in this opening. However, the closer the centering, the better will be the performance. Very narrow and thick stock will require closer centering in the width of the COATER for an even coating. The LUBE ROLLS float up/ down, so the **Stock** may be off-center in the height of the opening to a limited degree.

To have a **MOUNTING SURFACE** on which the **COATER** can be placed at the proper height usually requires some fabrication. This SURFACE, and any bracketing used, must give solid support. The SURFACE need not be one continuos flat, but may be two separate pads. This SURFACE (SURFACES) should be in one plane, and be as parallel to the STOCK to be lubricated as practical.

B. Mounting the COATER UNIT

The **COATER UNIT** is mounted by having its feet bolted to the MOUNTING SURFACE. Use 3/8" bolts with heavy flat washers to do this. If the SURFACE is 3/8" or more thick, you may drill and tap for 3/8" thread and bolt into it. If this SURFACE is less than 3/8", drill 13/32" holes through it and use a lockwasher and nut on the underside.

C. Locating the RESERVOIR UNIT

The **RESERVOIR UNIT** may be set in place on its feet, or mounted on a wall using the holes provided. When deciding on a location for this **UNIT**, consider the following:

- **1.** The lubricant tank will require filling. Make sure its location will allow this to be done without hindrance and encumbrance.
- 2. AIR/FLUID/DRAIN LINES will need to be routed to the COATER UNIT and attached (see para. D below). Make sure these lines are long enough to reach from this **UNIT** to the **COATER**. Longer **LINES** are available from L.S.P. if needed.
- 3. An AIR SUPPLY will need to be connected to the RES-ERVOIR UNIT (see para. E. below). Make sure the location of this UNIT allows this done without difficulty.
- 4. Make sure the routing of any of the LINES above will not cross passage ways, will not ensnare, and will not interfere with operations.
- NOTE: The **RESERVOIR UNITs** are available in various capacities. Make sure you can identify the UNIT you are installing should you need to use the REPLACE-MENT PARTS listing later.

D. Attaching the AIR/FLUID/DRAIN LINES

An AIR LINE, FLUID LINE, AND DRAIN LINE will need to be routed between the **RESERVOIR** and **COATER UNITS**, and have their respective connections made. If these **LINES** are too long, they may be cut to appropriate lengths; however, always leave enough slack to prevent sharp bends that might cause the LINES to kink. Using the front illustration as example, make the following connections:

- 1. Connect the 1/4" O.D. AIR LINE at the AIR INLET on the COATER UNIT, and at the AIR OUTLET on the RESER-VOIR UNIT.
- 2. Connect the 1/4" O.D. FLUID LINE at the FLUID INLET on the COATER UNIT, and at the FLUID OUTLET on the **RESERVOIR UNIT.**
- 3. Connect one end of the 5/8" O.D. DRAIN LINE to the DRAIN OUTLET on the COATER UNIT. and insert the other end into the DRAIN RETURN hole in the top of the RESERVOIR UNIT.
- NOTE: Use a thread sealant on all the pipe connections to insure against air and fluid leakage.

E. Attaching the AIR SUPPLY

Connect an AIR SUPPLY of at least 70 PSI at the AIR SUPPLY PORT on the RESERVOIR UNIT. It is advised that vou make this connection with a quick-disconnect fitting to allow shutting down the UNIT should an AIR OR FLUID LINE to the COATER become loose or severed. For the best performance, it is also advised that this AIR SUPPLY be filtered, regulated, and lubricated.

F. Installing the LUBE ROLLS

The LUBE ROLLS are shipped separately to prevent damage to their support bearings. There is no distinction between the two Rolls (they are identical). Install the Rolls as described below and shown in Figure #1.

- 1. Open the ROLL CARRIAGES using the AIR VALVE found on the **RESERVOIR UNIT** for this purpose.
- 2. Install the lower LUBE ROLL by simply setting it in its place. Make sure it is centered and resting level on its support bearings.
- 3. WARNING Before installing the upper LUBE ROLL SET SCREWS, (28) AND JAM NUT, (27) MUST BE REMOVED to allow ROLL to be installed. These Jam Nuts and Set Screws hold the SPRING LOADED RETAINERS in place.
- 3. Install the upper LUBE ROLL by forcing it upwards past its spring loaded retainers until it snaps into place. Before applying force, make sure the ROLL is centered and is in contact with its support bearings at both ends.
- 4. Insert SET SCREWS, (28), at both ends until they gently touch the SPRING LOADED RETAINERS.
- 5. Apply the JAM NUTS, (27), to the SET SCREW, (28), and lock in place.
- 4. Close ROLL CARRIAGES using the AIR VALVE.

G. Installing the CONTROL UNIT

Various methods may be used to control the dispensing of the lubricant applied. If using an L.S.P. CONTROLLER, see the INSTRUCTIONS supplied with it for installation. If using the P.L.C. (Programmable Logic Control) on your machine, see para. E. under OPERATING INSTRUC-TIONS for directions.





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RGR-026 2 RING, Retaining: E type

TUBING, Plastic: 5/32" OD

BLK-013 A/R

OPERATING INSTRUCTIONS

A. Inserting the STOCK

At times, STOCK will have to be fed through the COATER

- If lubricant is only required on a portion of the LUBE **UNIT** and into the press. This is to be done as follows: ROLL'S width, that area not needing lubricant can be left dry. This is done by using the two sets of PUSH BUTTONS 1. The ROLL CARRIAGEs must be opened before feedlocated at the sides of the COATER UNIT. One set coning **Stock** through the **UNIT** or there may be damage trols application to the upper LUBE ROLL, the other condone to the LUBE ROLLS. This is done using the AIR trols application to the lower LUBE ROLL. VALVE on the RESERVOIR UNIT.
- 2. Once opened, feed the STOCK through the UNIT.
- 3. Close the ROLL CARRIAGES with the AIR VALVE.

B. Priming the Fluid System

At startup (or if the fluid tank is left to run dry) the FLUID **LINE** will contain only air. Before beginning (continuing) operation, these LINES should be filled (refilled) with lubricant. This is done by having the CONTROL UNIT cycle until the system is filled and lubricant is being applied at the LUBE ROLLS.





C. Selecting the Area to be Lubricated

The PUSH BUTTONS are ends of valve spools. Pulling a BUTTON in from the front side of the COATER allows lubricant to go to its respective area on the LUBE ROLL. Pushing that **BUTTON** in from the front side stops lubricant flow to that area. See Figure #2 for illustration.

These BUTTONS, control the lube to respective areas on the LUBE ROLL. The labels on the Valve Manifold aid in making your selection.

D. Removing the LUBE ROLLS

Use the following instructions and Fig. #1 for direction.

- 1. Open ROLL CARRIAGE using the 3-Way AIR VALVE.
- 2. Remove STOCK from COATER UNIT.
- 3. Lift out the lower LUBE ROLL. This ROLL is removed by simply lifting it out of its ROLL CARRIAGE.
- 4. WARNING, The top ROLL is held in place with Spring LOADED RETAINERS plus a SET SCREW (28) and JAM NUT (27) at both ends. Loosen the JAM NUTS at both ends and completely remove the SET SCREWS, so that the Spring Loaded Retainers are unlocked and unrestricted. Place a screw driver shank under the cover and on top of the roll at one end. Wedge the handle up so that the shank forces the roll down, dislodging it from its spring loaded retainers. If possible offer some support to the roll so that it does not fall down with force and damage the bottom bearings.
- 5. See para. F. under INSTALLATION INSTRUCTIONS for re-installing the ROLLS.

OPERATING INSTRUCTIONS (continued)

E. Using the CONTROL UNIT

The CONTROL UNIT governs dispensing the lubricant by controlling the FLUID VALVE on the RESERVOIR UNIT. The lubricant in the **RESERVOIR UNIT** is pressurized by the FLUID PUMP and is held in check by the FLUID VALVE. When activated (opened) by the **CONTROL UNIT**, the FLUID VALVE allows the lubricant to flow to the dispensing heads and wet the LUBE ROLLS. This is done as the **STOCK** is being fed out. As the feed-out drives the wetted ROLLS, the lubricant is deposited onto the STOCK.

Any device that can be programmed to provide the proper functions may be used as the CONTROL UNIT. It might be a **UNIT** supplied by **L.S.P.** or other source, or the controller (P.L.C.) on your machine if one is provided.

The basic functions to be programmed are a Trigger-Point and an On-Time. The Trigger-Point being set to begin the On-Time (usually at the beginning of stock feed-out). On-Time being set for that amount of time the FLUID VALVE is to be activated to dispense lubricant (usually for the duration of the feed-out).

To enhance performance or adapt to special situations, other functions may be desired of the CONTROL UNIT. For example: With very long feed-outs (or roll forming) applying the lubricant in a series of short pulses will allow more control of the application. With very short feed-outs applying a pulse of lubricant every third, fifth, or tenth stroke may be best. If you think your application might require some extended functions, call L.S.P. or our representative for advice.

F. Using the FLUID PRESSURE REGULATOR

The FLUID PRESSURE REGULATOR on the RESERVOIR **UNIT** sets the pressure at which the lube is supplied to the dispensing heads. Turning its knob counter-clockwise will reduce the amount of lubricant dispensed; clockwise will increase the amount. This control is usually adjusted during operation until the desired amount of lubricant coating is attained.

HOW TO REPLACE THE FELT SLEEVES.

The FELT ROLLERS consist of a METAL TUBE with END CAPS, a removable Flange, a Snap Ring and a FELT SLEEVE. The Metal Tube and FLANGE will need to be replaced infrequently whereas the **F**ELT **S**LEEVE will see a periodic replacement due to wear.

- 1. Remove the **R**OLLERS from the **FloaterCOATER** by lifting out the bottom one and prying the top one loose.
- 2. Remove the **S**NAP **R**ING from one end of the ROLLER and slide off the FLANGE.
- 3. Cut the FELT SLEEVE from the ROLLER.
- 4. Slide new FELT SLEEVE on to the ROLLER.
- 5. Replace FLANGE.
- 6. Replace SNAP RING.
- 5. Soak in warm water until saturated then remove and allow to dry overnight.
- 6. Reassemble and FLOATERCOATER is ready for use.

Warning:

Always disconnect the air supply whenever the FloaterCoater has to be disassembled

COATER PARTS LISTING

<u>Key</u>	Part #	Qty	Part Name					
Following parts are specific to the 12" Coater								
01	001/042	2	SELECT ROLLS FROM CATALOG					
04	COV-042 BAS-014	1	COVER, Frame: 12 BASE Frame: 12"					
06	BRK-074	1	BRACKET Frame: left					
07	BRK-075	1	BRACKET, Frame: right					
09	BRK-080	2	BRACKET, Tube: mounting					
10	SCR-089	2	SCREW, Button Hd: 8-32X1/4"					
23	HSG-223	2	HOUSING, Valve: fluid, 3 port					
28	FIT-102	6	FITTING, Elbow: 5/32" tube x 1/8 NPT					
31	SPL-034	10	SPOUL, Valve: fluid					
১∠ 33	RGC-010 RGR-027	10	RING, Seal. O type RING Retaining: cresent type					
34	WAS-024	2	WASHER. Flat #8					
Foll	owing parts	are s	pecific to the 18" Coater					
01 2 SELECT ROLLS FROM CATALOG								
04	COV-043	1	COVER, Frame: 18"					
05	BAS-015	1	BASE, Frame: 18"					
06	BRK-078	1	BRACKET, Frame: left					
07	BRK-079	1	BRACKET, Frame: right					
10	BRK-080	3	SCREW Rutton Hd: 8.32 x 1/4"					
23	HSG-224	2	HOUSING Valve: fluid 5 port					
28	FIT-102	10	FITTING, Flbow: 5/32" tube x 1/8 NPT					
31	SPL-034	10	SPOOL, Valve: fluid					
32	RGO-010	30	RING, Seal: "O" type					
33	RGR-027	20	RING, Retaining: cresent type					
<u>34</u>	WAS-024	3	WASHER, Flat: #8					
	owing parts	are s	pecific to the 24° Coater					
01	COV 044	2	COVER Frame: 24"					
04	BAS-016	1	BASE Frame: 24"					
06	BRK-078	1	BRACKET, Frame: left					
07	BRK-079	1	BRACKET, Frame: right					
09	BRK-080	3	BRACKET, Tube: mounting					
10	SCR-089	3	SCREW, Button Hd, 8-32 x 1/4"					
23	HSG-224	10	HOUSING, Valve: fluid, 5 port					
20 31	SPL-034	10	SPOOL Valve: fluid					
32	RGO-010	30	RING. Seal: "O" type					
33	RGR-027	20	RING, Retaining: cresent type					
34	WAS-024	3	WASHER, Flat: #8					
Foll	owing parts	are c	ommon to all three Coaters					
02	WAS 101	4	WASHER, Retaining					
03	RGR-039	4	RING, Retaining BRACKET Foot: left and right					
11	WAS-001	15	WASHER Lock: #10 internal tooth					
12	SPG-043	4	SPRING, Compression					
13	FIT-104	1	FITTING, Union: Y type					
14	WAS-002	24	WASHER, Lock: 1/4" internal tooth					
15	SCR-098	10	SCREW, Button Hd: 10-32 x 1/2"					
16	BLK-001	A/R	IUBING, Plastic: 1/4" U.D.					
18	RGO-084	2 4	CILINDER, AIL III RING Seal: "O" type					
19	PIS-026	2	PISTON, Air: lower lift					
20	PIS-027	2	PISTON, Air: upper lift					
21	FIT105	3	FITTING, Elbow: 1/4" tube x 1/8 NPT					
22	SCR-104	8	SCREW, Button Hd: 1/4-28 x 5/8"					
24	FIT-003	2	FIT FING, Plug: 1/8 NPT					
25 26	FII-035 рыр 002	1 1	FITHING, NIPPIE: SNOT 1/8 NPT					
20 27	500-002 FIT-114	1	FITTING Adapter: $1/8$ NPT Y $1/4$ OD					
29	GID-022	2	GUIDE. Head					
30	SCR-026	16	SCREW, Buttonhd: 1/4 UNF x 1/2" la					
35	420-FIT-01	1	FITTING, ASSEMBLY: air inlet					
36	SCR-103	5	SCREW, Button HD: 10-32 X 3/8"					
37	BLK-013	A/R	I UBING, Plastic: 5/32" O.D.					

PARTS for the COATER UNIT

