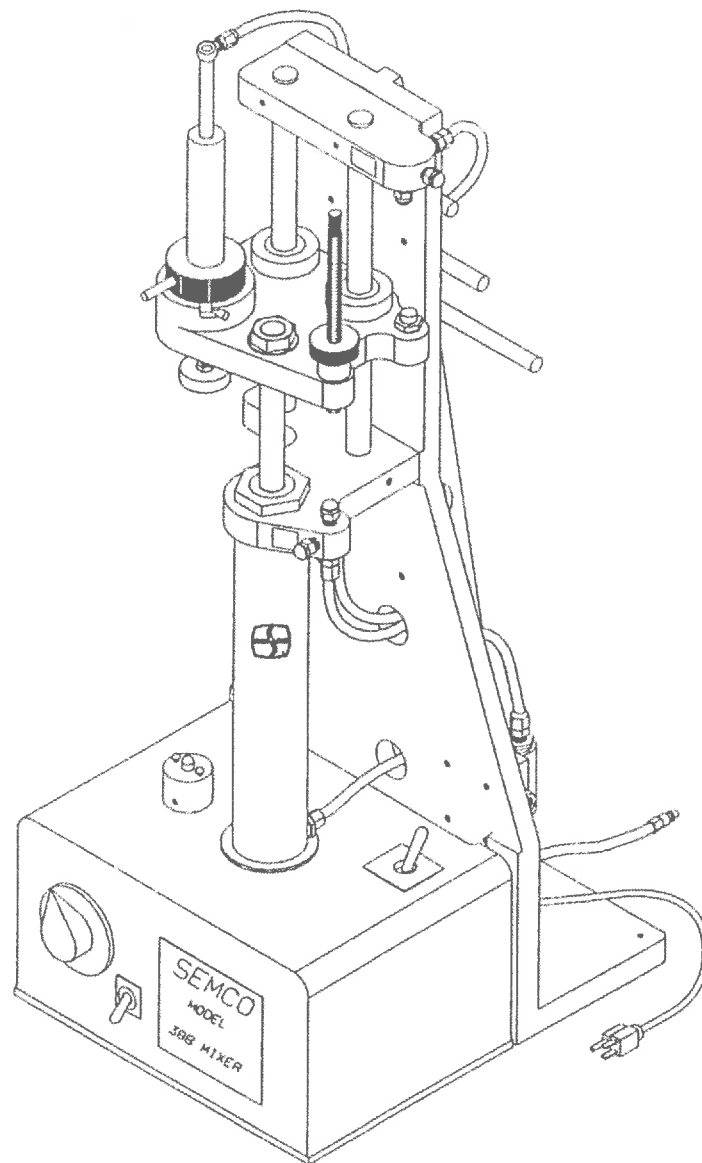


Semco Model 388 Automatic Semkit® Mixer



Model 388 Automatic Semkit® Mixer

Operating Instructions

Description

The Model 388 Automatic Semkit® Mixer is designed to perform the complete mixing operation of Semkits®.

Stroking of the dasher rod is accomplished by means of a reversing air cylinder and rotation of the dasher rod is accomplished by a low speed electric gear motor, therefore the service requirement for this unit are compressed air and 110 VAC 60 cycle, or 220 VAC 50 cycle power with an optional transformer. The rotation speed of the motor is constant depending on load, but the stroking speed of the air cylinder can be varied by adjustments.

The most effective stroking speed for most materials is between 16 and 22 strokes per minute. The stroke speed in the Model 388 has been pre-set at mid-point for the six fluid ounce Semkit®, so the speed will be a few strokes per minute slower for the eight fluid ounce Semkit® and a few strokes per minute faster for the two and one-half fluid ounce Semkit®.

CAUTION: Always wear safety glasses when operating or cleaning equipment.

Preparation

1. The instruction plate attached to the left-hand side of the box lists the Semkit® size/dasher rod size, the proper spindle number and upper stroke adjustment rod to use, and the correct setting in inches for the down stroke adjustment rod. Select kit to be mixed and prepare for mixing as stated in instructions on side of box.
2. Determine if Semkit® is "fully packaged" or is a short package and make appropriate down stroke adjustment as shown on instructions on side of box.
A Semkit® is "fully packaged" when material in dasher rod has been injected or barrier has erupted, and the rim of plunger is 3/16" from end of cartridge while dasher rod is pushed all the way to touch plunger. If Semkit® is not fully packaged, **Shorten Down Stroke** by the difference in inches of the location of the plunger between a fully packaged Semkit® and the actual location of the plunger.

Operation

Mixer equipped with two pin Spindle Assembly.

1. Remove air cylinder cap assembly from retaining plate and insert Semkit®, rod end first, through mounting hole in retaining plate.
2. Pull dasher rod down onto pins of drive spindle.
3. Grasp cartridge and pull down until it is fully seated in retaining plate; then install and lock air cylinder/cap assembly.
4. Position a “**Manual-Automatic**” switch in “**Automatic**” position; and position a “**Mix-Rev**” switch to “**Mix**” position; turn timer knob to desired number of minutes for mixing. (If mix period is less than two minutes, timer must be turned **past** two minutes then returned to the desired time).
5. When timer has completed its cycle, both air and electric power will be shut off and Semkit® may be removed.
6. Remove Semkit® by first putting “**Mix-Rev**” switch in “**Off**” position.
7. Depress “**Manual Up**” poppet valve and turn timer on and then immediately off, keeping poppet valve depressed until air exhausts.
8. Unlock and remove air cylinder/cap assembly.
9. Remove dasher rod from drive spindle, lift Semkit® through retaining plate for use as required.

Mixer Equipped with Drive Screw Assembly

1. Remove air cylinder cap assembly from retaining plate and insert Semkit®, rod end first, through mounting hole in retaining plate.
2. Pull dasher rod down onto threaded end of drive spindle.
3. Grasp dasher rod knob firmly; put “**Manual-Automatic**” toggle switch in “**Manual**” position until dasher rod is securely threaded to the drive spindle.
4. Grasp cartridge and pull down until it is fully seated in retaining plate; then install and lock air cylinder/cap assembly.

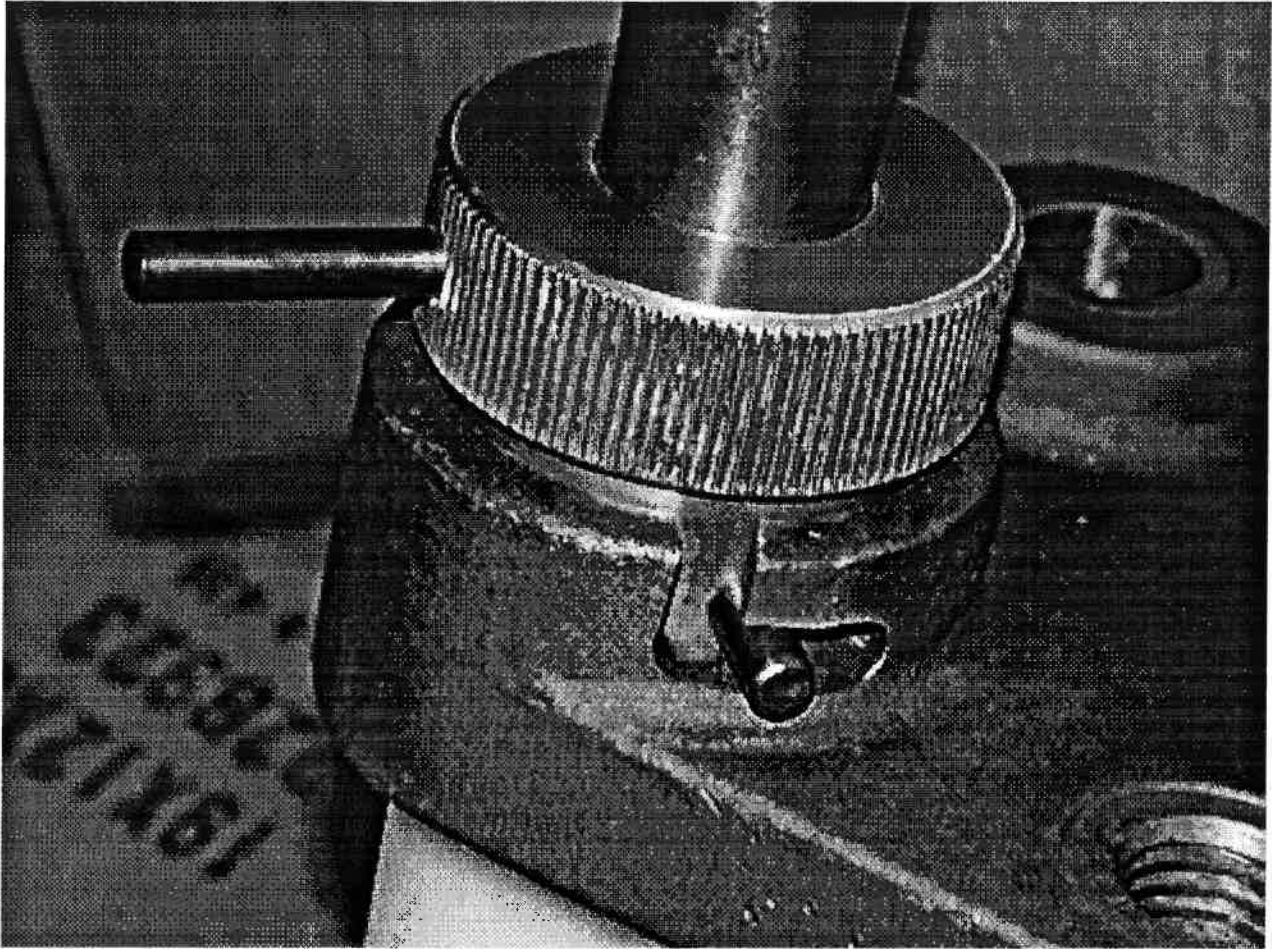
5. Put “**Mix-Rev**” switch in “**Mix**” position; put “**Manual - Automatic**” switch in “**Automatic**” position; and turn timer knob to desired number of minutes for mixing. (If mix period is less than two minutes, timer must be turned **past** two minutes and then returned to the desired time).
6. When timer has completed its cycle, both air and electric power will be shut off and Semkit® may be removed.
7. Remove Semkit® by first putting “**Mix-Rev**” switch in “**Off**” position.
8. Depress “**Manual-Up**” poppet valve and turn timer on and then immediately off, keeping poppet valve depressed until air exhaust.
9. Unlock and remove air cylinder/cap assembly.
10. Put “**Manual-Automatic**” switch in “**Manual**” position.
11. Grasp dasher rod firmly and put “**Mix-Rev**” switch in “**Rev**” position to unthread dasher rod from drive spindle.
12. After dasher rod is free from drive spindle, lift Semkit® through retaining plate for use as required.

Caution: Disconnect air supply and/or electrical power when equipment is not in use, and before servicing.

Periodic Maintenance

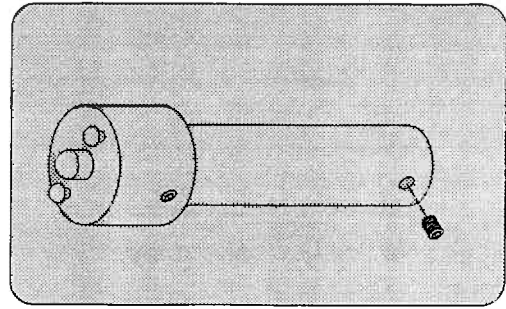
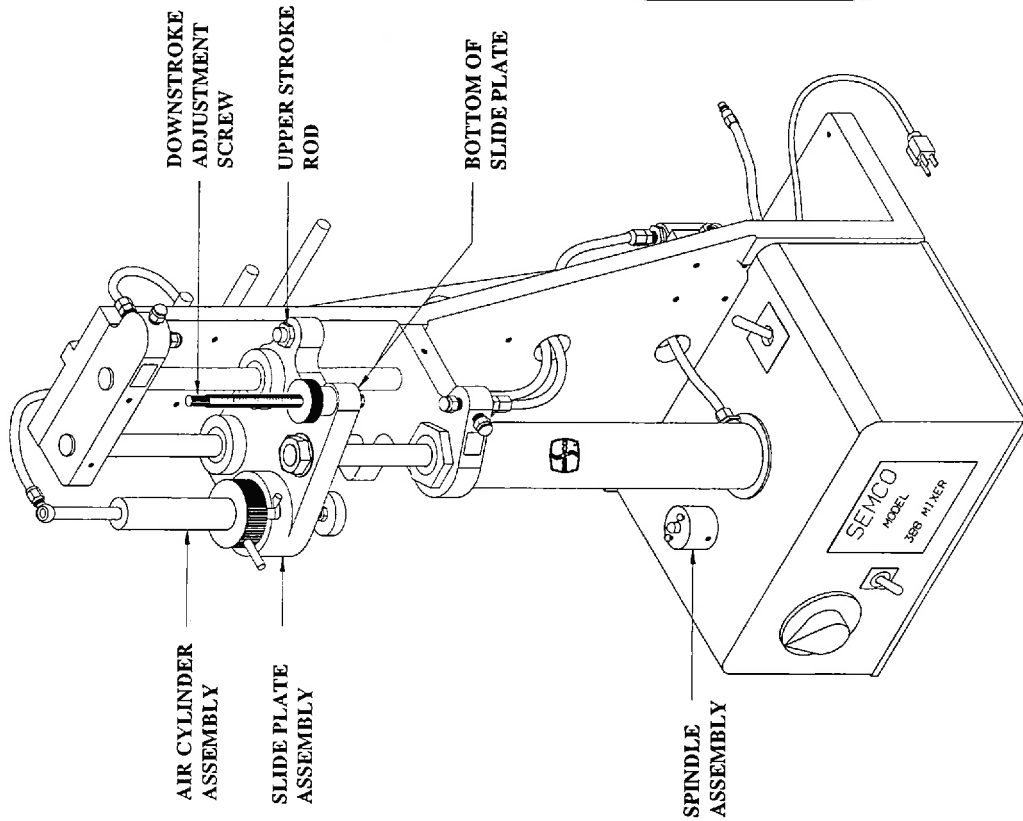
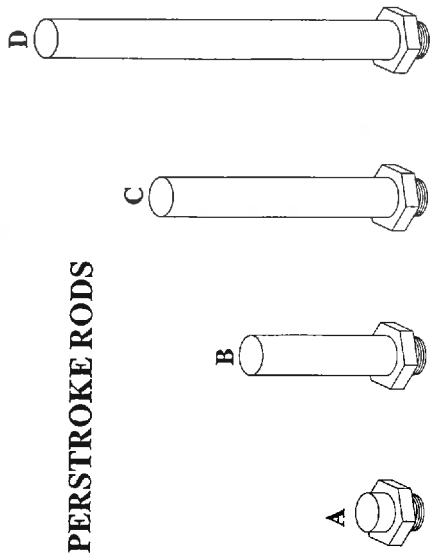
Gear motor brushes should be inspected after approximately every 80 hours of use. Open cover plate at bottom of mixer to get to gear motor. Inspect one of the brushes of gear motor. If less than 3/16" of brush remains, both brushes should be replaced.

When ordering brush, use P/N 232825 (for 1 each). Two brushes required per each gear motor.

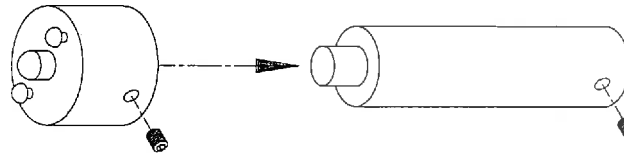


This picture is of how a new slide plate looks holding a cartridge, the two pins slightly engage the two slide plate “ears”, as the slide plate wears and with cartridge variation the pins will engage the ears deeper. The third pin **must** face the operator and is only used to **hand tighten** the cap in to the slide plate. **Do not tap on the third pin with a hammer or other tool as it will break one or both “ears” of the slide plate.** The motion of mixing a cartridge naturally tightens the cartridge in to the slide plate; the cap assembly is only used to keep the cartridge in place and from rotating.

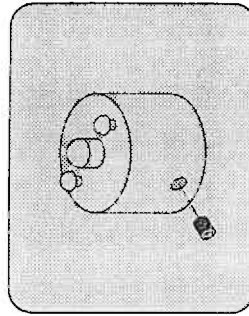
UPPERSTROKE RODS



2 SPINDLE ASSEMBLY



EXTENSION SPINDLE



1 SPINDLE

SEMCO 388 MIXER GUIDE

Full Semkit -
Plunger is 1/4" from
cartridge flange

ROUGH ADJUSTMENT
DOWNSTROKE SCREW

UPPER STROKE ROD

SPINDLE

OVERALL LENGTH WITH
DASHER ROD EXTENDED

8 - 8 Semkit® 16-1/2"



A

FLUSH W/ BOTTOM
OF SLIDE PLATE

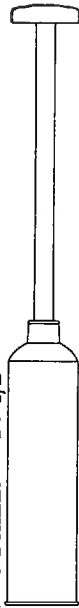
6 - 6 Semkit® 12-7/8"



A

1-7/8" BELOW
BOTTOM OF SLIDE
PLATE

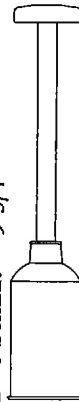
6 - 8 Semkit® 14-1/2"



B

FLUSH W/BOTTOM
OF SLIDE PLATE

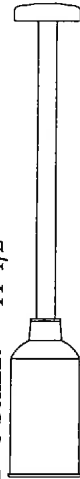
2 - 6 Semkit® 9-3/4"



C

1-7/8" BELOW
BOTTOM OF SLIDE
PLATE

2 - 8 Semkit® 11-1/2"

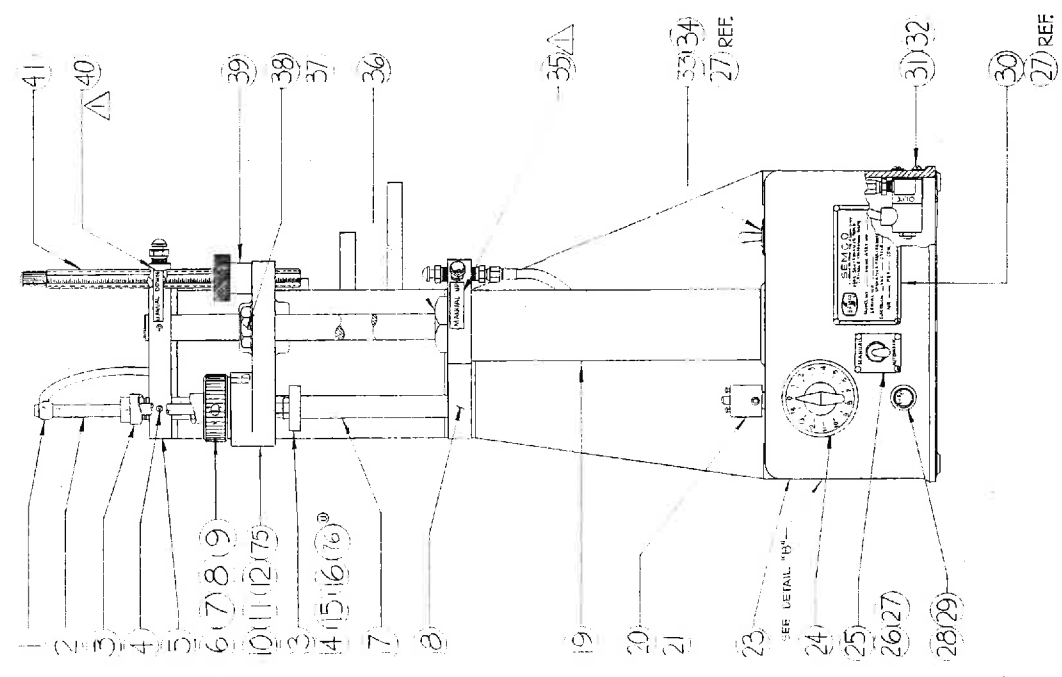


D

FLUSH W/BOTTOM
OF SLIDE PLATE

NOTES:

1. APPLY SCOTCH GRIP NO. 1300L TO AFKA ITEM (35) AND (40) APPROXIMATELY WHERE SHOWN.
2. FOR 120V. APPLICATION USE P/N 235321C4C3 (MIXING P/N 235321C4C3) (W/INCL. PARTS)
3. SEE DIM. NO. 221177 "C" SIZE
4. SEE DIM. NO. 221329 "B" SIZE
5. SEE DIM. NO. 221330 FOR 266" 102" AIR CYLINDER ASSY.
6. SEE P/N 221330 FOR 266" 50" AIR CYLINDER ASSY.
7. SEE P/N 221331 FOR 266" 50" AIR CYLINDER ASSY.
8. SEE P/N 221332 FOR 266" 50" AIR CYLINDER ASSY.
9. SEE P/N 221333 FOR 266" 50" AIR CYLINDER ASSY.
10. SEE P/N 221334 FOR 266" 50" AIR CYLINDER ASSY.
11. SEE P/N 221335 FOR 266" 50" AIR CYLINDER ASSY.
12. SEE P/N 221336 FOR 266" 50" AIR CYLINDER ASSY.
13. SEE P/N 221337 FOR 266" 50" AIR CYLINDER ASSY.
14. SEE P/N 221338 FOR 266" 50" AIR CYLINDER ASSY.
15. SEE P/N 221339 FOR 266" 50" AIR CYLINDER ASSY.
16. SEE P/N 221340 FOR 266" 50" AIR CYLINDER ASSY.
17. SEE P/N 221341 FOR 266" 50" AIR CYLINDER ASSY.
18. SEE P/N 221342 FOR 266" 50" AIR CYLINDER ASSY.
19. SEE P/N 221343 FOR 266" 50" AIR CYLINDER ASSY.
20. SEE P/N 221344 FOR 266" 50" AIR CYLINDER ASSY.
21. SEE P/N 221345 FOR 266" 50" AIR CYLINDER ASSY.
22. SEE P/N 221346 FOR 266" 50" AIR CYLINDER ASSY.
23. SEE P/N 221347 FOR 266" 50" AIR CYLINDER ASSY.
24. SEE P/N 221348 FOR 266" 50" AIR CYLINDER ASSY.
25. SEE P/N 221349 FOR 266" 50" AIR CYLINDER ASSY.
26. SEE P/N 221350 FOR 266" 50" AIR CYLINDER ASSY.
27. SEE P/N 221351 FOR 266" 50" AIR CYLINDER ASSY.
28. SEE P/N 221352 FOR 266" 50" AIR CYLINDER ASSY.
29. SEE P/N 221353 FOR 266" 50" AIR CYLINDER ASSY.
30. SEE P/N 221354 FOR 266" 50" AIR CYLINDER ASSY.
31. SEE P/N 221355 FOR 266" 50" AIR CYLINDER ASSY.
32. SEE P/N 221356 FOR 266" 50" AIR CYLINDER ASSY.
33. SEE P/N 221357 FOR 266" 50" AIR CYLINDER ASSY.
34. SEE P/N 221358 FOR 266" 50" AIR CYLINDER ASSY.
35. SEE P/N 221359 FOR 266" 50" AIR CYLINDER ASSY.
36. SEE P/N 221360 FOR 266" 50" AIR CYLINDER ASSY.
37. SEE P/N 221361 FOR 266" 50" AIR CYLINDER ASSY.
38. SEE P/N 221362 FOR 266" 50" AIR CYLINDER ASSY.
39. SEE P/N 221363 FOR 266" 50" AIR CYLINDER ASSY.
40. SEE P/N 221364 FOR 266" 50" AIR CYLINDER ASSY.
41. SEE P/N 221365 FOR 266" 50" AIR CYLINDER ASSY.
42. SEE P/N 221366 FOR 266" 50" AIR CYLINDER ASSY.
43. SEE P/N 221367 FOR 266" 50" AIR CYLINDER ASSY.
44. SEE P/N 221368 FOR 266" 50" AIR CYLINDER ASSY.
45. SEE P/N 221369 FOR 266" 50" AIR CYLINDER ASSY.
46. SEE P/N 221370 FOR 266" 50" AIR CYLINDER ASSY.



MODEL 388-370
 MODEL 388-372
 MODEL 388-374
 MODEL 388-376

REV	DESCRIPTION	BY	DATE	APPROV
1	REVISION NOTE SEE SHEET 3 OF 3			
2				
3				
4				
5				
6				
7				
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10				
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SEMCO

MODEL 388 MIXER ASSY.
 D 92108
 221269
 SCALE 1:2
 SHEET 1 OF 3

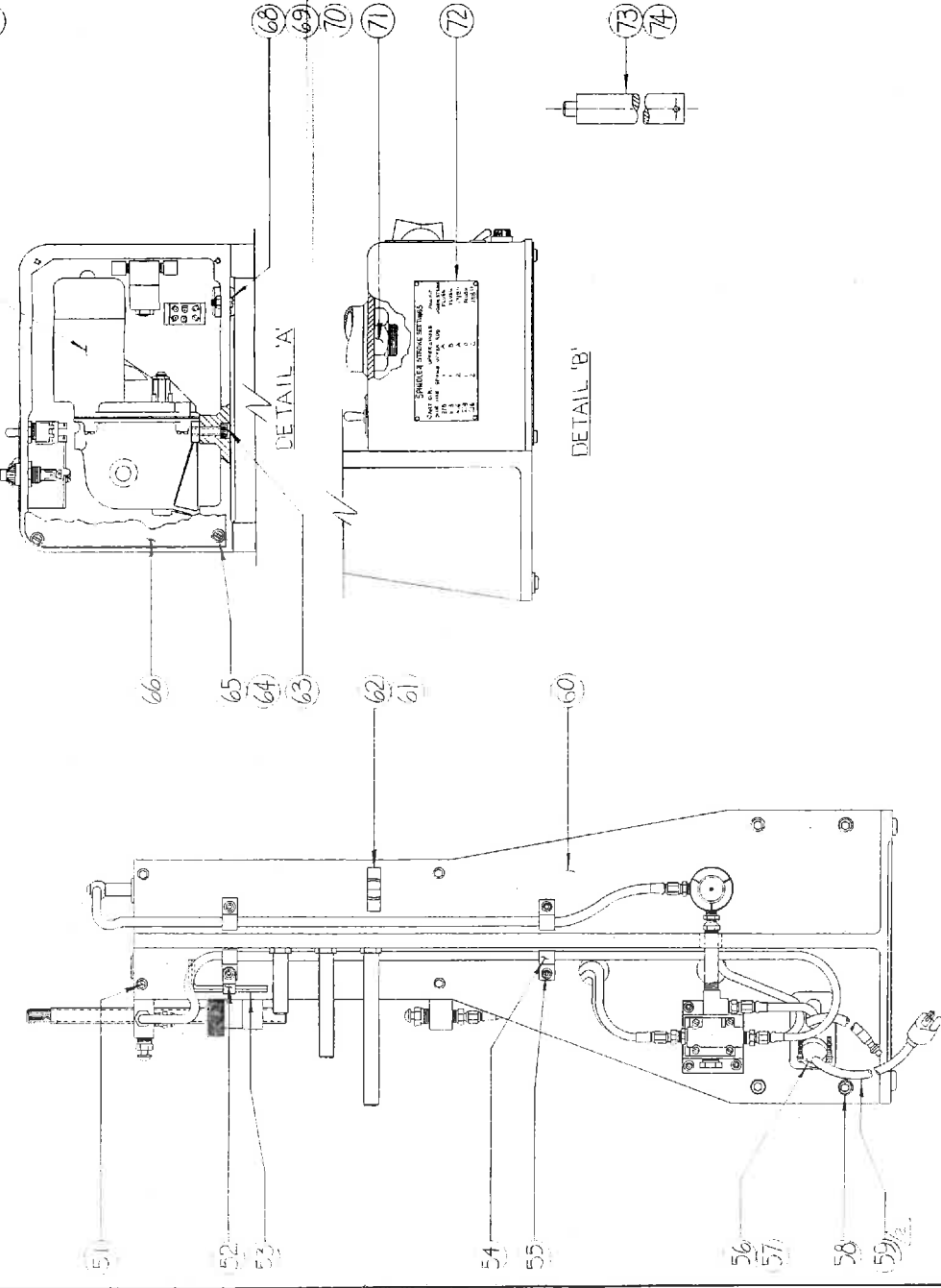
UNLESS OTHERWISE SPECIFIED
 TOLERANCES
 DECIMALS
 FRACTION
 ANGLE

INTERPRET PER MIL. 100
 ALL DIMENSIONS ARE IN INCHES
 BREAK ALL SHARP EDGES TO 1/32
 MACHINED SURFACES TO BE TO 1/32
 SURFACE FINISH TO BE 1/32

SEE DETAIL "A"
 SEE DETAIL "B"
 SEE DETAIL "C"
 SEE DETAIL "D"
 SEE DETAIL "E"
 SEE DETAIL "F"
 SEE DETAIL "G"
 SEE DETAIL "H"
 SEE DETAIL "I"
 SEE DETAIL "J"
 SEE DETAIL "K"
 SEE DETAIL "L"
 SEE DETAIL "M"
 SEE DETAIL "N"
 SEE DETAIL "O"
 SEE DETAIL "P"
 SEE DETAIL "Q"
 SEE DETAIL "R"
 SEE DETAIL "S"
 SEE DETAIL "T"
 SEE DETAIL "U"
 SEE DETAIL "V"
 SEE DETAIL "W"
 SEE DETAIL "X"
 SEE DETAIL "Y"
 SEE DETAIL "Z"

REVISIONS	
NO.	DESCRIPTION
119	REVISION NOTE SEE SHEET 3 OF 3
BY	DATE

DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED



NO.	QTY.	QTY. PER UNIT	DESCRIPTION OR MATERIAL
51	1	1	SCREW, SOCK HD, STL, CAP 1/4-20 X 1 1/2
52	1	1	WRENCH HOLDER
53	1	1	ALLEN WRENCH, HEX. 1/8"
54	1	1	CABLE CLAMP
55	1	1	CORD GRIP
56	1	1	SCREW, SOC. HD. STL. CAP 5/16-18 X 3/4
57	1	1	CORD NUT
58	1	1	BRACKET
59	1	1	SCREW, RND. HD. STL. 10-32 X 1/2
60	1	1	CLIP
61	1	1	SCREW, RND. HD. STL. 10-32 X 1/2
62	1	1	MOTOR, 115 VOLT
63	1	1	BASE PLATE
64	1	1	SCREW, FLT. HD. STL. 10-32 X 1/2
65	1	1	WASHER, B, CLIP NICKEL PLTD.
66	1	1	SCREW, SOC. HD., STL. CAP 5/16-18 X 1/2
67	1	1	SCREW, RND. HD. STL. 10-32 X 1/2
68	1	1	NUT, HEX. 8-32 THD.
69	1	1	WASHER #5, EXT. TYPE SHK. PRF.
70	1	1	JAM NUT, HEX 1/4 THD.
71	1	1	EXTENSION SPINDLE #2
72	1	1	EXTENSION SPINDLE #4
73	1	1	OPEN WASHER (SEE SHEET 1 OF 3)
74	1	1	RAN HEAD, 110 GAL
75	1	1	INSTRUCTION PLATE
76	1	1	
77	1	1	
78	1	1	
79	1	1	
80	1	1	
81	1	1	
82	1	1	
83	1	1	
84	1	1	
85	1	1	
86	1	1	
87	1	1	
88	1	1	
89	1	1	
90	1	1	
91	1	1	
92	1	1	
93	1	1	

TITLE		DESCRIPTION OR MATERIAL	
MODEL 388 MIXER ASSY.			
SHEET NO.	221269	PART NO.	92108
REV.	2	SCALE	1:2
		SHEET 2 OF 3	

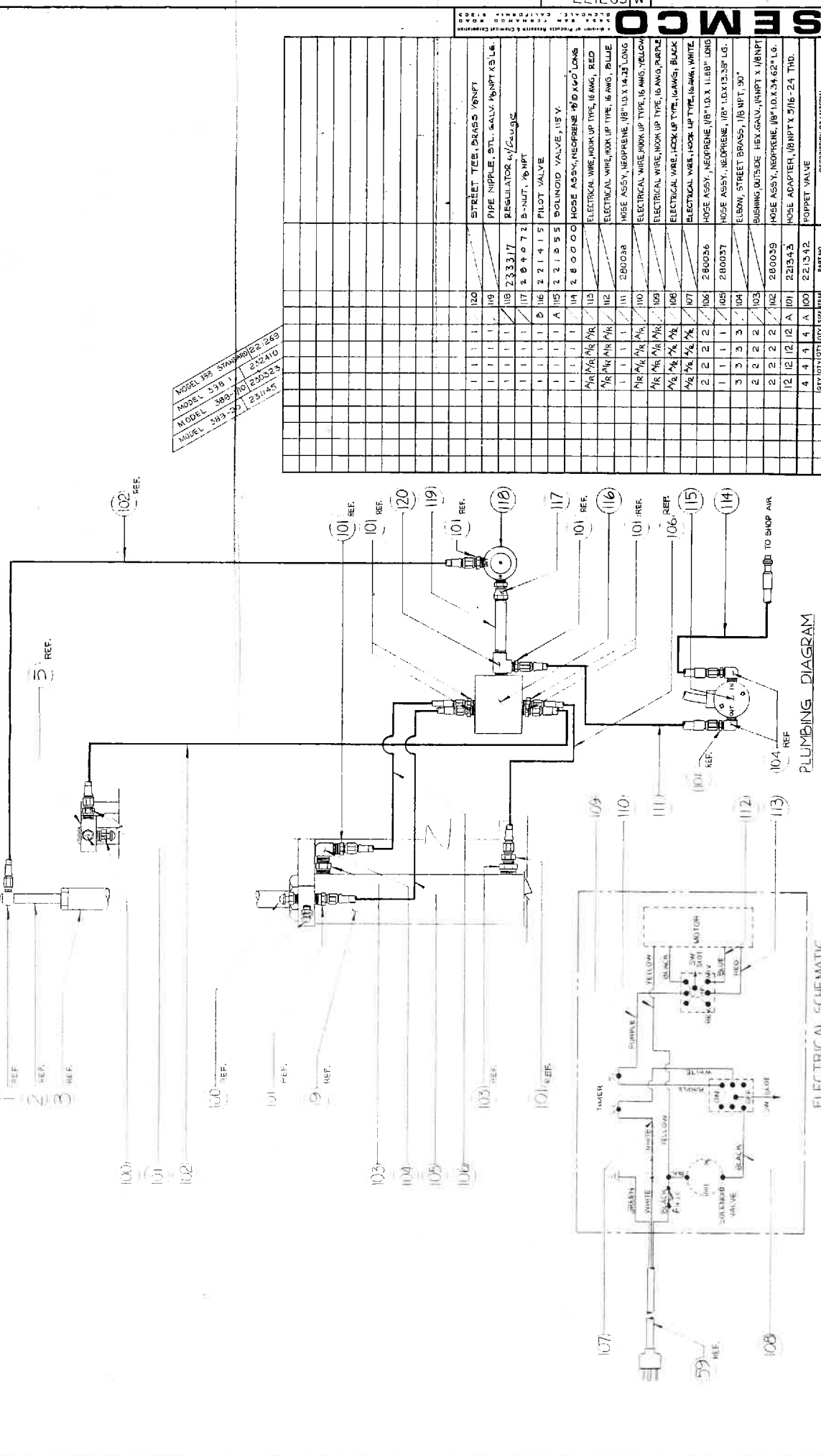
UNLESS OTHERWISE SPECIFIED
 INTERPRET PER MIL. 100
 ALL DIMENSIONS ARE TO CENTER UNLESS OTHERWISE SPECIFIED
 SURFACE FINISH TO BE 125
 SURFACE TEXTURE 40
 TOLERANCES:
 DECIMAL
 FRACTION
 ANGLE

QTY.	QTY. PER UNIT	DESCRIPTION OR MATERIAL
50	1	
51	1	
52	1	
53	1	
54	1	
55	1	
56	1	
57	1	
58	1	
59	1	
60	1	
61	1	
62	1	
63	1	
64	1	
65	1	
66	1	
67	1	
68	1	
69	1	
70	1	
71	1	
72	1	
73	1	
74	1	

221269

SEMCO

ITEM	DESCRIPTION	REV	DATE	APPROV
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MODEL 388	STANDARD	22-269
MODEL 388	1	212410
MODEL 388	101	230253
MODEL 388	201	231445

ITEM	DESCRIPTION	REV	DATE	APPROV
100	STREET TEE, BRASS 1/2NPT	1	1	120
101	PIPE NIPPLE, STL. GALV. 1/2NPT X 3 LG.	1	1	119
102	REGULATOR w/ Gauge	1	1	233317
103	B-NUT, 1/2 NPT	1	1	289972
104	PILOT VALVE	1	1	221415
105	SOLINOID VALVE, 115V.	1	1	280000
106	HOSE ASSY, NEOPRENE 1/2" ID X 10' LONG	1	1	280038
107	ELECTRICAL WIRE, 16 AWG, BLUE	1	1	280038
108	ELECTRICAL WIRE, 16 AWG, RED	1	1	280038
109	ELECTRICAL WIRE, 16 AWG, BLACK	1	1	280038
110	ELECTRICAL WIRE, 16 AWG, WHITE	1	1	280038
111	ELECTRICAL WIRE, 16 AWG, YELLOW	1	1	280038
112	ELECTRICAL WIRE, 16 AWG, PURPLE	1	1	280038
113	ELECTRICAL WIRE, 16 AWG, PINK	1	1	280038
114	ELECTRICAL WIRE, 16 AWG, GREEN	1	1	280038
115	ELECTRICAL WIRE, 16 AWG, BROWN	1	1	280038
116	ELECTRICAL WIRE, 16 AWG, GREY	1	1	280038
117	ELECTRICAL WIRE, 16 AWG, TAN	1	1	280038
118	ELECTRICAL WIRE, 16 AWG, LIGHT BLUE	1	1	280038
119	ELECTRICAL WIRE, 16 AWG, LIGHT GREEN	1	1	280038
120	ELECTRICAL WIRE, 16 AWG, LIGHT PINK	1	1	280038

SEMCO

MODEL 388 MIXER ASSY.
ELECTRICAL SCHEMATIC & PLUMBING DIAGRAM

REV 3 OF 3

DATE 2/21/69

SCALE NONE

DESCRIPTION OR MATERIAL

ITEM	REV	DATE	APPROV
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UNLESS OTHERWISE SPECIFIED
INTERPRET PER MIL. 100
DIMENSIONS ARE IN INCHES
ALL DIMENSIONS BEFORE PLATING
BREAK ALL SHARP EDGES TO 0.10 MAX
SURFACE FINISH TO BE 120
SURFACE TOLERANCE ±0.005

TOLERANCES
DECIMAL
FRACTION
ANGLE

FINISH

USED ON

NEXT ASSY

REV 3 OF 3

221269

92108

221269

3 OF 3