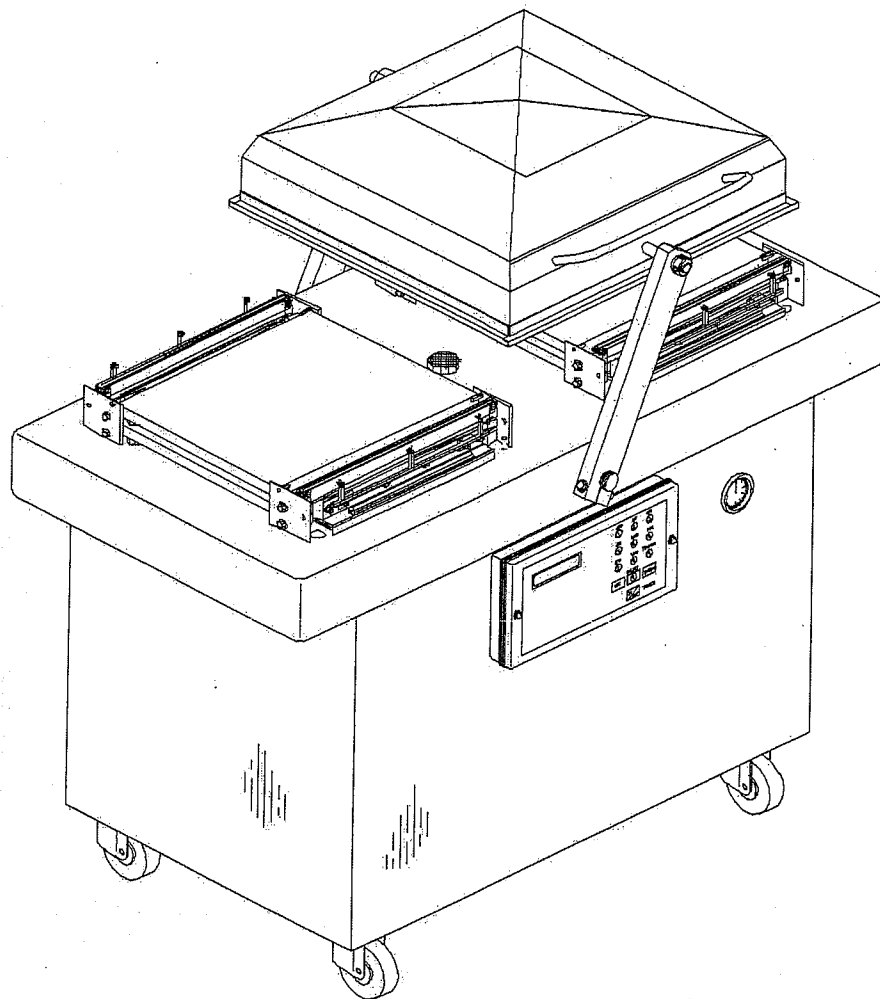
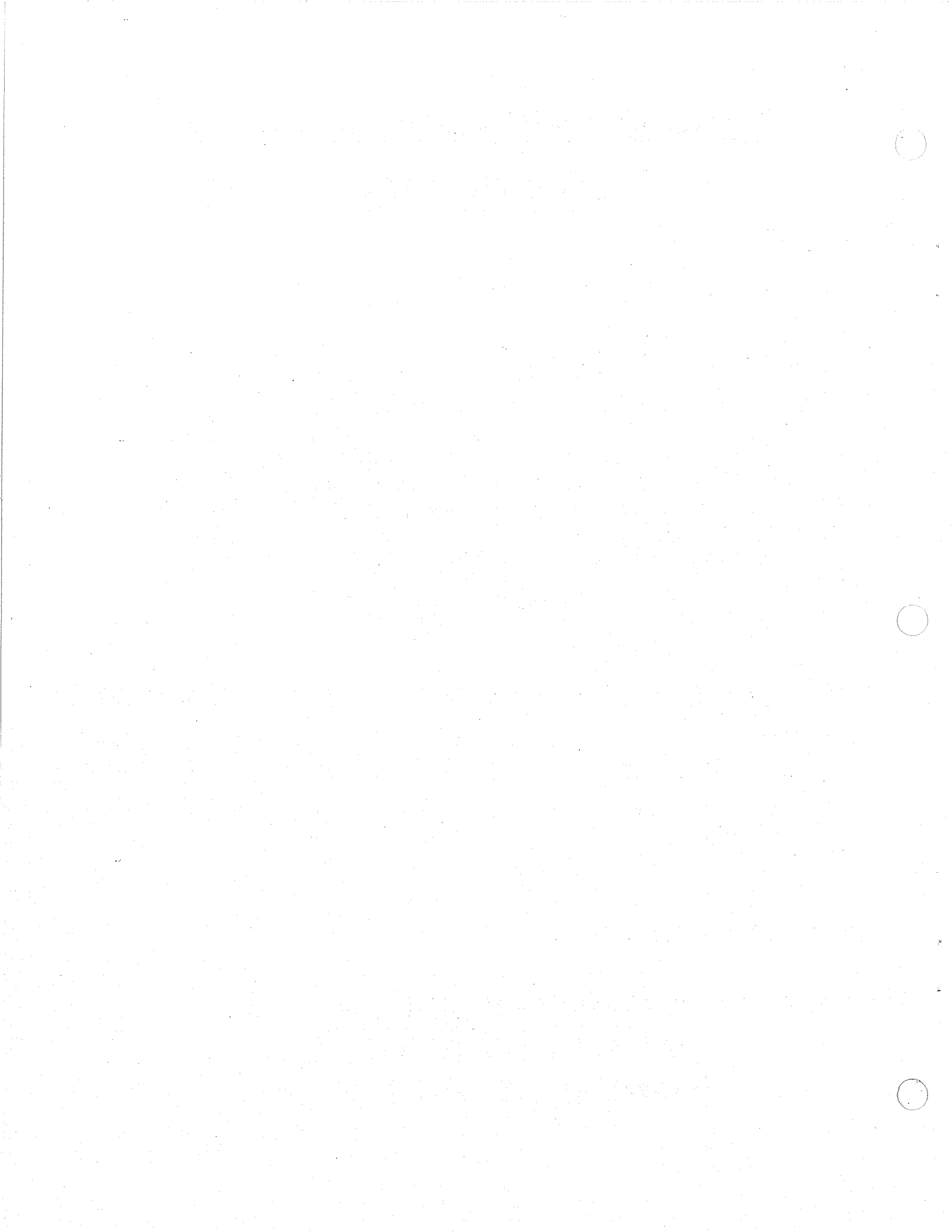


VACUUM PACKAGING MACHINE

MODEL 420A



OWNERS MANUEL (MANUEL D'UTILISATION) (MANUAL DE UTILIZACION)



Safe Operation Practices



This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate your machine. Failure to comply with these instructions may result in personal injury.

General Operation

- Read, understand, and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for further and regular reference and for ordering replacement parts.
- Only allow responsible individuals familiar with the instructions to operate the machine. Be sure to know controls and how to stop the machine quickly.
- Never put your hands near moving parts.
- Only allow qualified individuals for the maintenance of your machine.
- Remove all obstacles, which may interfere with the machine functions.
- Clear the work area such as electrical wires, buckets, knives etc.
- Be sure that everyone else is clear of your work area before operating the machine.
- Do not sit nor stand on the machine.
- Always turn off the machine after your work is done. Never leave a running machine unattended.
- Always disconnect and wait till the machine has cooled before attempting any maintenance.
- Do not wear loose fitting clothes or jewelry as they may get caught in moving parts of the machine.
- Always wear security shoes, to prevent injury caused by moving the machine or objects falling from the machine.
- Never exceed the time limit to seal, which is recommended by the manufacturer. This is to avoid any damage that may be caused to the sealing bars and to eliminate the risk of fire in the machine. Thus avoiding corporal burns.
- Never touch the sealing bars after they have been used, this will avoid corporal burns. Wait a few minutes to let the machine cool down before touching.
- Always make sure that the sealing bars are well installed in their "Guide Blocks" before starting a cycle.
- Never incline the machine more than 30 degrees, it may tip over and hurt someone seriously.
- Work only in daylight or good artificial light.

Do not operate the machine while under the influence of alcohol or drugs!

Service

- Use proper containers when draining the oil. Do not use food or beverage containers that may mislead someone into drinking from them. Properly dispose of the containers, or store in a safe place immediately following the draining of the oil.
- Prior to disposal, determine the proper method to dispose of waste from your local office of Environmental Protection Agency. Recycling centers are established to properly dispose of materials in an environmentally safe fashion.

Do not pour oil or other fluids into the ground, down a drain or into a body of water.



Warning-Your responsibility:

This machine should only be operated by personal who can read, understand and respect warnings and instructions regarding this machine in the owners manual.

INSTALLATION NOTICE FOR MODELS:

420A, 450T, 450A, 550A, 580A, 600A, 620A, 650A, 680A and 700A

IN ORDER TO RESPECT NSF REGULATIONS:

A plastic cap has been installed over the table top vacuum inlet. Used for cleaning purposes only and is to be removed prior to operating the machine.

VACUUM PACKAGING MACHINE

MODEL 420A

(MC-40)

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- C- 420A Cover adjustment procedure
- D- 420A Central shaft assembly drawing
- E- P.C. board support drawing
- F- 420A Structure assembly drawing
- G- Seal bar assembly drawings (twin seal)
- H- Seal bar assembly drawings (electrical bag cut option)
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VACUUM PACKAGING MACHINES

OPERATION INSTRUCTIONS

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 - 4.2.3 Insufficient vacuum in the chamber
 - 4.3 Faulty seal
 - 4.3.1 Insufficient seal
 - 4.3.2 No seal
 - 4.3.3 Permanent sealing current
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 - 4.4 Fault in the valves
 - 4.5 Control board failure
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SIPROMAC INC. VACUUM PACKAGING MACHINES

1. SETTING UP THE MACHINE:

Before choosing the site for the machine, please consider that you will also need room for packaged and non-packaged products apart from the space needed for the machine itself.

Keep in mind that the machine must not be set up upon uneven ground. Especially with mobile models, the weight of the pump might then cause warping of the machine. Then the lid will not fit correctly.

Before starting to work, check the oil view glass on the pump, if there is a sufficient quantity of oil in the pump. Never use oil other than recommended by the producer. Never exceed maximum quantity of oil indicated, when adding or changing oil. Verify weekly.

Due to the oil viscosity, the machine is hard to start when temperatures are very low. Therefore the pump should be put in a room with an air temperature of at least 50°F (+10°C). On the other hand, there must be free access of air to the pump to allow for cooling so that operation temperature of 160°F (70°C) is not exceeded.

2. ELECTRICAL CONNECTION:

Electrical connections must be made by qualified personnel. This person must make sure that the electrical entries corresponds to the proper voltage and amperage of the machine.

All vacuum machines are supplied with an electrical schematic drawing.

An important step in connecting the machine is to make sure that the pump turns in its correct rotation.



The pump should not rotate more than 3 to 4 seconds in the wrong rotation or it may cause serious damage. The proper rotation is indicated by an arrow on the pump motor.

3. OPERATION:

3.1 Working principles:

A vacuum packaging cycle is made of 3 stages. First the vacuum is made, the air is completely taken out of the chamber and from bag containing the product. (See figure 1). Then it is possible to inject neutral gas from the nozzles, if the product is delicate. Finally, a mechanism pushes the sealing bar to the rubber support to seal the bag.

To obtain nice packages, the products and the bags have to be of proportional sizes. The bag's opening should never exceed 50 cm(2") past the seal bars. The product should be centered in height in relation to the seal bar by adjusting the spacers provided.

To obtain a good seal, make sure that no residue of fat is left between the bag's inner sides where sealing is done.

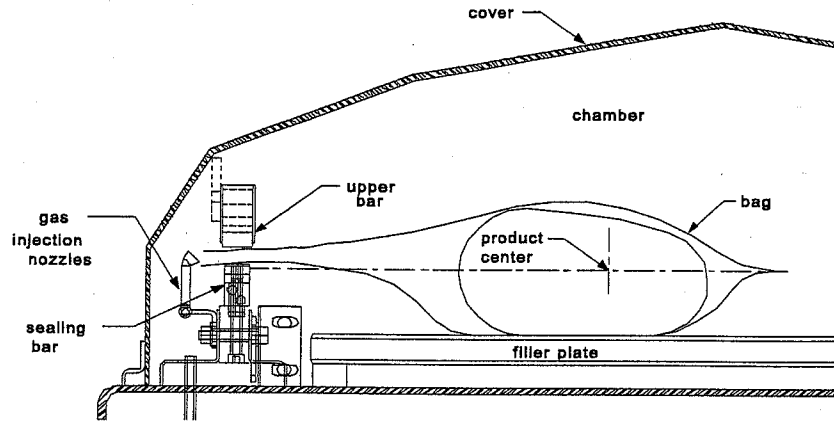


FIGURE 1

3.2 Special packaging:

3.2.1 Gas flushing (option):

There is an atmospheric pressure of 1 kg/ sq. cm (14 lbs/sq. inch) upon products when fully evacuated. Products which can be damaged by high pressure must be packaged with a partial vacuum, or the pressure must be counterbalance by inflating the bag with gas (nitrogen or carbon dioxide) before sealing after evacuation.

For gas flushing, the bags are placed on the sealing bars, the open end placed over the gas nozzles mounted alongside the sealing bar. After evacuation, the vacuum valve closes and the gas valve opens. Gas time (sec.) can be set in the program menu.

The necessary gas tank and pressure valve mounted on tank is not supplied, The pressure of the gas regulator should be set at approximately 1/3 kg/sq. cm (5 lbs/sq.inch.). Each machine has an adaptor for gas connection when gas flush option is ordered.

3.2.2 Electrical bag cut (optional):

This option is used to obtain a package that the excess bagtail is cut off close to the seal.

3.3 Vacuum packaging operation:

3.3 Vacuum packaging operation:

Note: Refer to the menus structure on page 10 and the keyboard detail on page 11.

3.3.1 Basics:

Use key "POWER" to power ON / OFF the vacuum packaging machine. When the unit is energized, the identification of the last executed program is displayed on LCD screen.

Use the "ESC" key to change over from the programs menu to the functions menu and from the functions menu to the programs menu.

In functions menu, use key "SELECT" to select a function and key "ENTER" to accede and executed the selection.

In programs menu, use key "SELECT" to select a program and key "ENTER" to accede and modify the selection.

In programs submenu, use key "ENTER" to pass over the parameters and point to the following one; the parameters are blinking to point out the acquisition mode. A return to programs menu is performed automatically following the last parameter acquisition.

In program submenu, use key "ESC" to get back to the programs menu. Strike any key to clear the error messages which may be displayed on LCD screen.

3.3.2 Functions:

3.3.2.1 Create a program:

When executing the "create a program" function, the program submenu is acceded, starting with the identification. The initial identification "Pxx NO NAME" is given to the program and all parameters are established to zero; the program number is allocated automatically.

3.3.2.2 Delete a program:

When executing the "delete a program" function, the programs menu is acceded and the number of the first program in memory is blinking to point out the deletion mode. Use key "SELECT" to select a program and key "ENTER" to accede and confirm deletion of the selection. Use key "ESC" to unconfirm a deletion and to leave the function. When leaving the function, the number of the actual program on LCD screen cease to blink.

3.3.2.3 Select operating mode:

When executing the "select operating mode" function, which is available only for the automatic units, the actual selection is blinking to point out the acquisition mode. Use key "SELECT" to get through the operating modes, which are automatic, semi-automatic and manual; the validation of the selected operating mode is performed automatically. Use key "ESC" or "ENTER" to leave the function and get back to the program menu.

3.3.3 Programs menu:

3.3.3.1 Program identification:

For a selected program, set the identification, using the numeric keyboard characters chart; press numeric key until the desired character is selected (4 times for the numeric value). Use key "ENTER" to validate the character and to validate the characters string at the end (the new characters string is blinking). In a middle of an acquisition, use key "ESC" to come backward and erase one or several characters.

Example: EXAMPLE 1 →
(9 characters)

keys 2, 2, ENTER	→ E
keys 8, 8, 8, ENTER	→ X
keys 1, ENTER	→ A
keys 5, ENTER	→ M
keys 6, ENTER	→ P
keys 4, 4, 4, ENTER	→ L
keys 2, 2, ENTER	→ E
keys 9, 9, 9, ENTER	→ space
keys 1, 1, 1, 1, ENTER	→ 1

key ENTER to validate the characters string

3.3.3.2 Vacuum time setting:

For a selected program set the vacuum time, in seconds; the validation is automatically performed following the second digit entry (the new vacuum time is blinking). In a middle of an acquisition, use key "ENTER" to validate the vacuum time and key "ESC" to come backward and start over with a new acquisition (the old vacuum time is blinking).

Examples: 1s → keys 0, 1 or 1, ENTER
15s → keys 1, 5

3.3.3.3 Gas time setting:

For a selected program set the gas time setting following the same procedure as for the vacuum time. Keep in mind that increasing gas time decrease sealing pressure. Some vacuum must be kept inside to assure proper functioning.

3.3.3.4 Sealing time setting:

For a selected program set the sealing time, starting with the seconds; the decimal point is automatically inserted following the first digit entry and the validation is automatically performed following the third digit entry (the new sealing time is blinking). The sealing time is truncated to the nearest half hundredth. In a middle of an acquisition, use key "ENTER" to validate the sealing time and key "ESC" to come backward and start over with a new acquisition (the old sealing time is blinking).

Examples:

- 4.50s → keys 4, 5, 0 or 4, 5, ENTER or
keys 4, 5, 1 or 4, 5, 2 or 4, 5, 3 or 4, 5, 4
- 2.35s → keys 2, 3, 5 or
keys 2, 3, 6 or 2, 3, 7 or 2, 3, 8 or 2, 3, 9
- 0.00s → keys 0, 0, 0 or 0, ENTER

3.3.4 Vacuum cycle execution:

For the manual units and the automatic units set on manual, close the cover to initiate a vacuum cycle. For the automatic units set on semi-automatic or on automatic, use push button "STOP / START" to initiate or interrupt a vacuum cycle. A selected program can be initiated only in the programs menu, when no modifications are in progress, and the access to the other programs and functions is denied. During cycle execution the operation status is sequentially displayed on LCD screen, except for the parameters established to zero, which are not displayed:

- vacuum time status during vacuum sequence,
- gas time status during gas flush sequence,
- sealing time status during sealing sequence,
- ATM message level during atmosphere sequence.

During cycle execution, use key "1" to abort the vacuum sequence and execute the following sequence, which is gas flush or sealing, and key "ENTER" to accede and modify the program; the parameters become valid only for the following vacuum cycles.

3.3.5 System monitor:

To accede the diagnostics menu, power up the vacuum packaging machine while keeping pushed in the "ESC"key. Use key "SELECT" to select the system monitor function and key "ENTER" to accede and visualize the monitored parameters. Use key "SELECT" to change over from the software revision, the amount of working hours done and the amount of complete cycles performed since first initialization.

-MENUS STRUCTURE-

- **Functions menu:**

- "F1 CREATE A PRGM"
- "F2 DELETE A PRGM"
- "F3 SELECT OPMODE" (automatic units only)

- **Programs menu:**

- "Pxx NAME"

Program submenu:

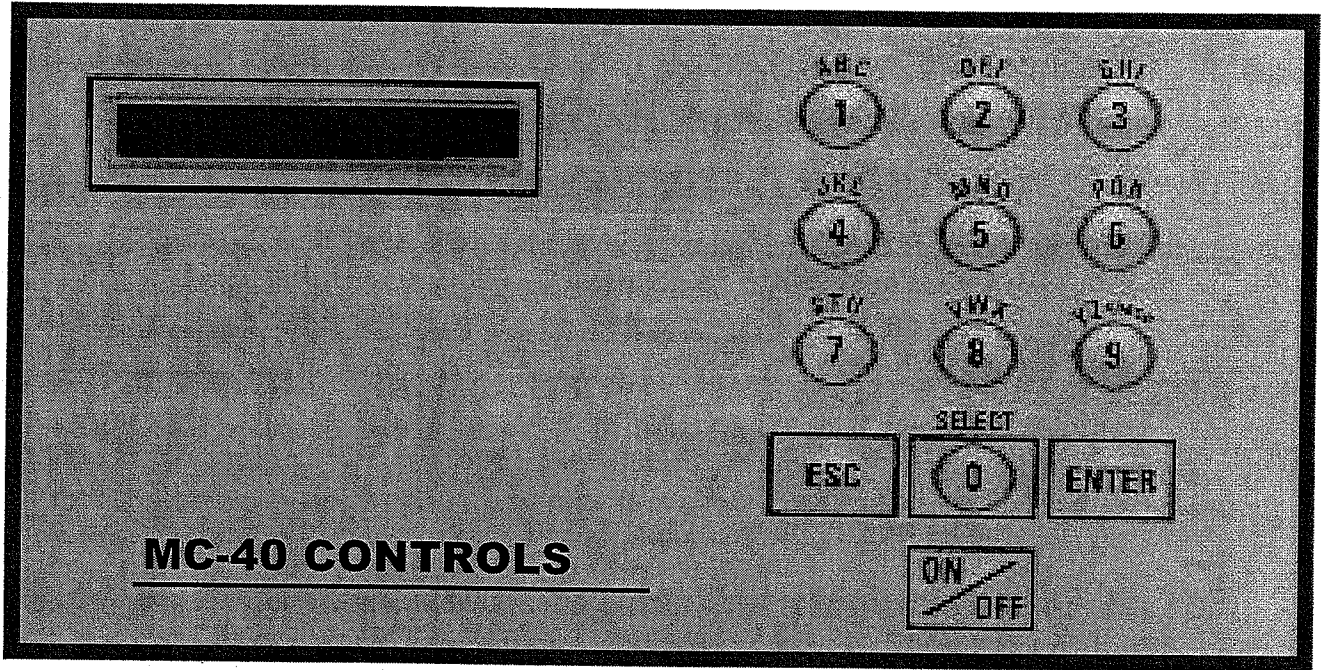
- "VACUUM: xx.xs" (10 – 199s)
- "GAS FLUSH: xx.xs" (0 – 99s) (units with gas option)
- "SEAL TIME: x.xxs" (0.00s - maximum unit allocated setting)
- "Pxx NAME" (12 characters)

- **Diagnostics menu** (keys "ESC" & "POWER" for access):

- "DIAGNOSTICS MENU" (access code required)
- "D1 INPUTS TEST"
- "D2 OUTPUTS TEST"
- "D3 MODEL SELECT"
- "D4 GAS OPTION"
- "D5 SEALING TIME"
- "D6 COOLING TIME"
- "D7 OFFSET CALIB."
- "D8 VACUUM SENSOR"
- "D9 SIPROMAC PUB"
- "D10 LOADING TIME" (automatic units only)
- "D11 UNLOADNG TIME" (automatic units only)
- "SYSTEM MONITOR" (no access code required)
- "SOFTWARE: R x.xx"
- "WORK HRS: xxxxx"
- "CYCLES: xxxxxxxx"

-KEYBOARD DETAILS-

MC-40 CONTROLS





WARNING: All electrical work described in this brochure should be done by a QUALIFIED and AUTHORIZED technician.

3.4 Daily cleaning:

For hygienic cleanliness, it is imperative to clean chamber and spacers daily. Also clean the lid rubber to assure tight seat of the lid.

4. TROUBLE SHOOTING:

4.1 Failure during packaging cycle:

4.1.1 "COVER DOWN ERROR" message is displayed on LCD(manual units):

The input signal of the down position switch has been lost during cycle execution.
- Check limit switch adjustment.

4.2 Insufficient vacuum:

4.2.1 Leakage in the bag:

Most frequently, insufficient vacuum in bags is due to leakage in bag and not due to any fault of the machine.

Pin-hole leak for which there is no obvious explanation is due to faulty bag material.

Pin-hole leak caused by sharp edge of the product (bone, etc.). Use bone-guard or thicker film.

Tear in bag by careless handling (sharp edge on filling table, damage made by retailer or customer).

Leakage in lateral or bottom seal, complain to supplier of bags or film.

4.2.2 No leakage in the bag:

Bag is too large, therefore the surplus of air remains visible (there is surplus of air in 0.4% of the bag volume in each bag). Use bags of suitable size.

Vacuum time is too short:

Pressure bar is jammed and closes opening of bag during evacuation.

4.2.3 Insufficient vacuum in chamber:

If troubles described under 4.2.1 and 4.2.2 do not apply, there is something wrong with the evacuation. To find the leakage quickly, check for leaks with a precision vacuummeter, going back step by step from the chamber to the pump.

At the chamber (measuring point at base of valve) at maximum time of evacuation. If more than 6 torr, proceed directly to the pump, if more than 3 torr: have pump service by pump supplier. If pressure at pump is good, reconnect hoses to pump and measure again.

Verify at vacuum hose connections and valve connections.

When proceeding this way, starting from pump, loss of pressure per step must not exceed 0.5 to 1 torr.

Warning: Verify connections of measuring equipment before verifying machine.

Most frequent points of leakage: lid gasket, damaged vacuum hose or loose hose clamps.

4.3 Faulty seal:

4.3.1 Insufficient seal:

Damaged teflon or silicone rubber.

Sealing pressure too low, bellows leaking or pressure bar jammed.

Leakers in seal: heating wire mechanically damaged (knicked) or silicone rubber uneven.

4.3.2 No seal:

Sealing wire burnt.

Faulty contact in sealing circuit.

Sealing transformer burnt through.

Contactor does not work.

4.3.3 Permanent sealing current:

Contactor is jammed check sealing transformer for damage through overload.

4.3.4 Seal does not stick:

Insufficient layer of polyethylene (inferior quality of bags).

Seal area extremely contaminated by fat or meat juice. Use filling aid.

Sealing temperature is too low (when using very thick films).

Warning: Do not increase sealing time more than really necessary; higher temperature will reduce working life of teflon and silicone rubber.

4.4 Fault in the valve:

Vacuum or air valve does not open.

Check whether there is voltage on the magnetic valves during their period of operation. If there is no voltage a wire is broken or the PC board is damaged.

Lid does not open at the end of the cycle; air enters, but there is still 20 - 40% vacuum in chamber. Vacuum valve does not close.

4.5 MC40 Control board failure

NOTE: Refer to menu structure on page 9.

This board software is allowing access to a "Diagnostics Menu". Only qualified service technicians are authorized to access this menu by entering a security password.

By acceding either the "D1 input test" feature or the "D2 output test" feature, a trained technician will be able to quickly know the origin of the problem: pump, sealing system, pneumatic problem, security switches problem, etc...

Keep in mind that in most cases trouble is due to a leakage, loose electrical Keynesian or evident damage to the main component: vacuum pump, valves..., electrical contactors, thermal overload, fuses holder or transformer.

For assistance do not hesitate to contact your local service technicians.

5. Regular maintenance:

Routine controls to be made at regular intervals:

Check teflon for wear.

Check silicone rubber for burnt spots and smooth even position.

Check pressure bar for jamming.

Check lid sealing for damage and hardened spots.

Check switch-point of micro switch, adjust if necessary.

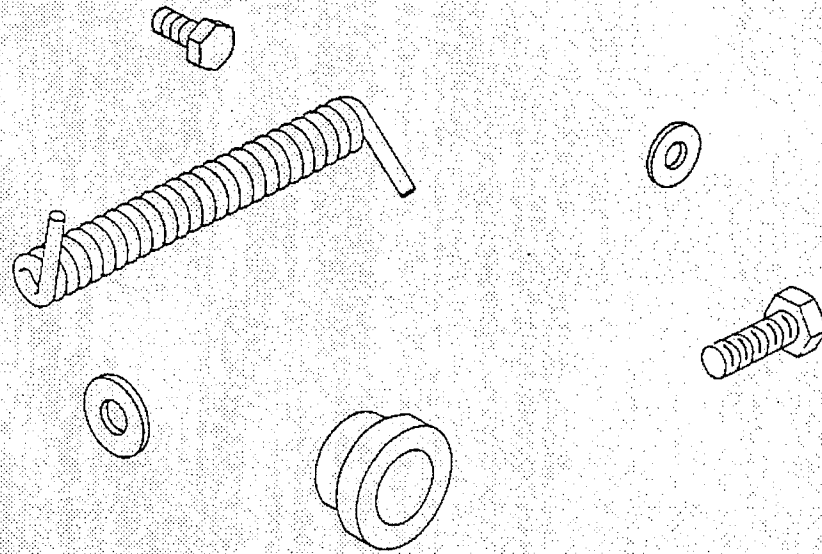
Check evacuation hose for damage (contraction of diameter, or abrasions).

Check vacuum connections for tightness.

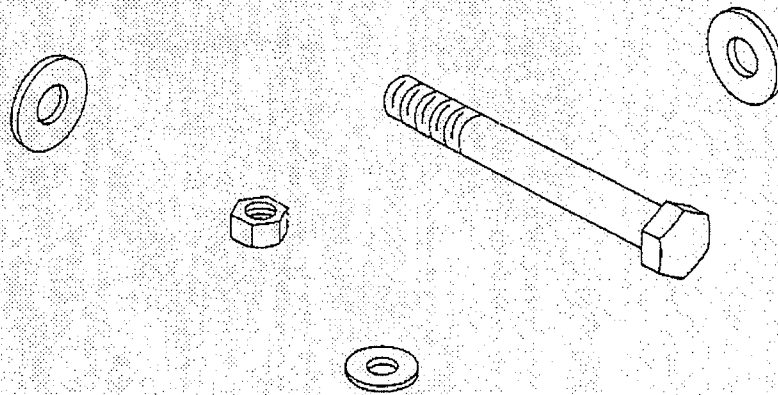
Check oil in pump (oil level in view glass; add if necessary. Regular change of oil - necessity indicated by change of color).

Check vacuum in chamber with precision vacuumeter.

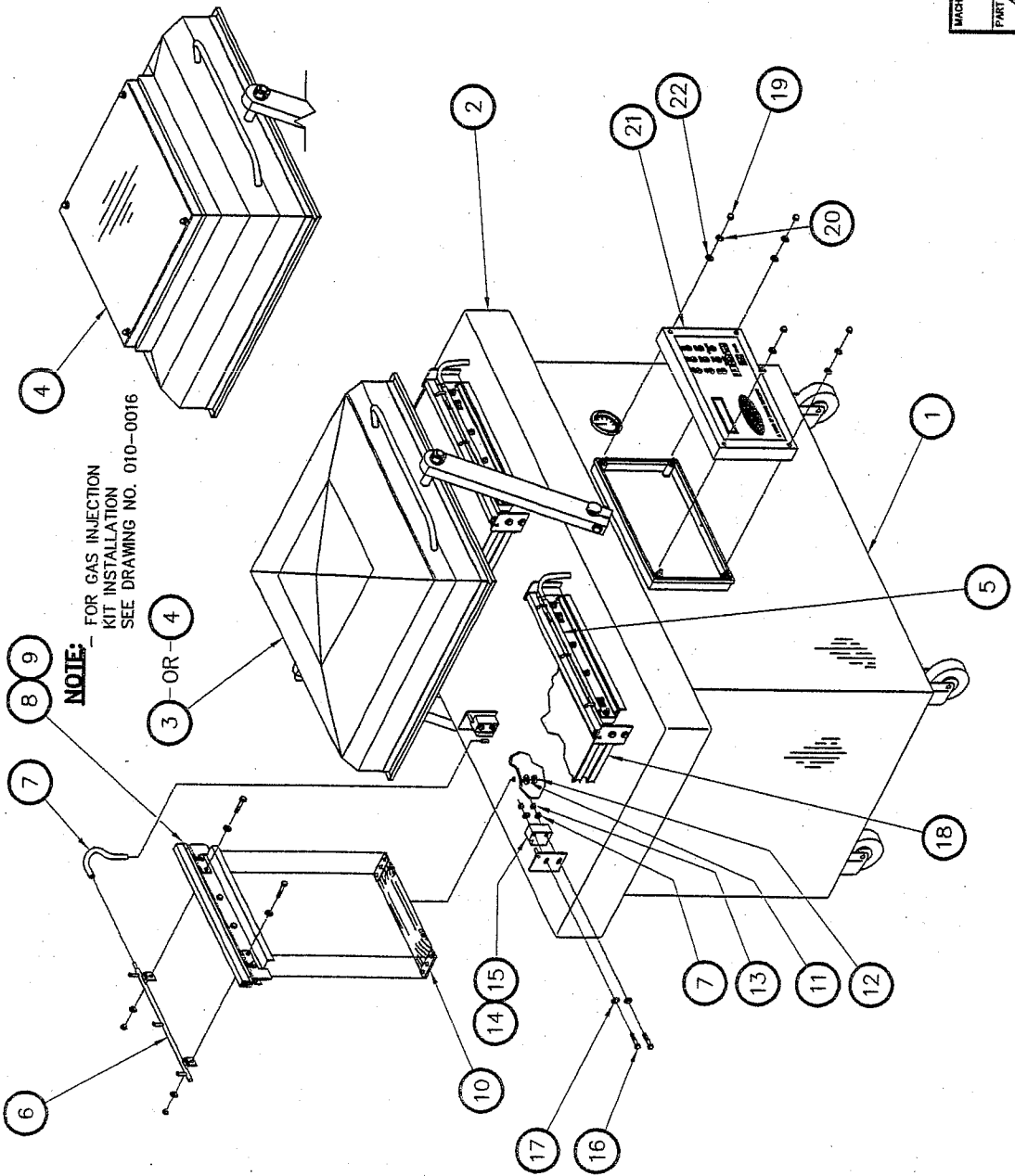
Check function of cycle with various settings of timers.



MECHANICAL DRAWING



ITEM	PART #	DESCRIPTION	QTY.
1	005B0599	MC-40 STRUCTURE ASSEMBLY	1
2	004A0124	CENTRAL SHAFT ASSEMBLY	1
3	005-0455	8" COVER ASSEMBLY	1
4	005-0476	8" COVER ASSEMBLY (PLEXI OPTION)	1
5	005B0042	FRONT GAS INJECTION BAR ASS'Y (OPT.)	2
6	005A0807	REAR GAS INJECTION BAR ASS'Y (OPT.)	2
7	008-0464	GAS INJECTION CONN. TUBE (OPTION)	4
8	005-0046	SEAL BAR ASS'Y W/ SUPPORT	4
9	005-0558	SEAL BAR ASS'Y W/ SUPPORT (BAG CUT OPTION)	4
10	005-0331	BELLOWS ASSEMBLY	4
11	051-0780	FLAT WASHER 3/8" S/S	4
12	051-0620	HEX. NUT 3/8"-16 NC.	4
13	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	16
14	002-0327	RIGHT SEAL BAR GUIDE BLOCK	4
15	002-0326	LEFT SEAL BAR GUIDE BLOCK	4
16	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	16
17	051-0740	FLAT WASHER 1/4" S/S	32
18	005-0333	FILLER PLATE ASSEMBLY	4
19	051-0591	ACORN NUT 1/4"-20 NC. S/S	4
20	051-0740	FLAT WASHER 1/4" S/S	4
21	005A0583	P.C. BOARD SUPPORT ASSEMBLY	1
22	057-0089	1/4" x 5/8" O.D. EPDM RUB. SEAL. WASHER	4



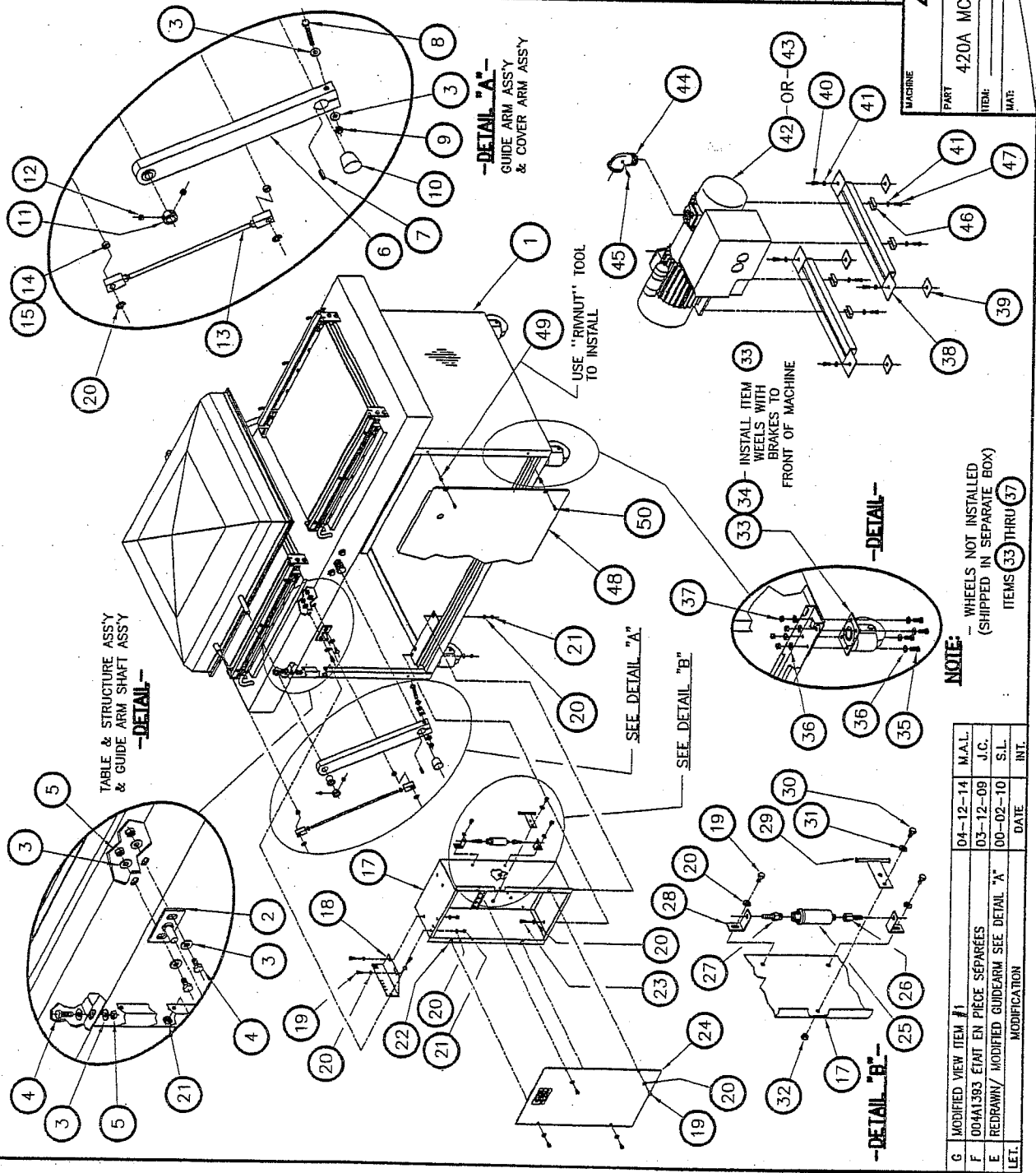
NOTE:
FOR GAS INJECTION
KIT INSTALLATION
SEE DRAWING NO. 010-0016

-OPTION MC-40-

MACHINE	420A	SCALE	1
PART	420A MC-40 FRONT VIEW	DATE	05-09-01
ITEM		DATE	05-11-03
MATERIAL		DATE	
DESIGNER	M. A. LEBLANC	DATE	
APP.		DATE	
CHECKED		DATE	
REVISION		DATE	
MODIFICATION		DATE	
LET.		DATE	
INT.		DATE	
SIPROMAC		ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
005A0598		005A0598	

REDRAWN	05-09-01	M.A.L.
MODIFICATION	DATE	INT.

ITEM	PART #	DESCRIPTION	QT.
1	005-0599	420A MC-40 FRONT VIEW	1
2	005-0317	GUIDE ARM SHAFT ASSEMBLY	1
3	051-0783	FLAT WASHER (THICK) 3/8" S/S	20
4	051-0360	HEX. BOLT 3/8"-16 NC. X 1" S/S	8
5	051-0620	HEX. NUT 3/8"-16 NC. S/S	8
6	00440348	COVER ARM ASSY	2
7	056-0167	KEY 1/4" SQ X 1" W/ ROUNDED END	2
8	051-0422	HEX. BOLT 3/8"-16NC. X 3 1/4" S/S	2
9	051-0622	HEX. NUT 3/8"-16 NC. NYLON LOCK S/S	2
10	057-0013	CENTRAL SHAFT END CAP	2
11	002-0390	SET SCREW 1/4"-20 X 5/16" S/S	4
12	051-0178	GUIDE-ARM PRE-ASSEMBLY	1
13	004A1393	SPACERS	2
14	058-0050	SPACERS	2
15	058-0060	EXT. RETAINING RING 1/2" S/S	2
16	056-0331	ELECTRICAL BOX ASSEMBLY	1
17	005-0374	LEFT/ ELECTRICAL BOX UPPER SUPPORT	1
18	001-1364	HEX. BOLT 1/4"-20 NC. X 1/2" S/S	8
19	051-0180	FLAT WASHER 1/4" S.S.	13
20	051-0740	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	3
21	051-0561	SPRING NUT 1/4"-20 NC STEEL	4
22	056-0020	HEX. BOLT 1/4"-20 NC. X 3/4" S/S	2
23	051-0190	ELECTRICAL BOX COVER PRE-ASSY	1
24	004-0279	DRYER FILTER	1
25	114-0220	STRAIGHT 1/4" FNPT X 1/4" HOSE	1
26	101-0210	STRAIGHT 1/4" MNPT X 1/4" HOSE	1
27	101-0200	DRYER SUPPORT	2
28	001-2062	GAS INLET ASSEMBLY (OPTION)	1
29	005-0323	HEX BOLT 1/4"-20 NC X 1/2" S/S (OPTION)	1
30	051-0180	FLAT WASHER 1/4" S/S (OPTION)	1
31	051-0740	HEX NUT 1/4"-20 NC NYLON LOCK S/S (OPTION)	1
32	051-0561	4" PL. CASTER SWIVEL W/ O BRAKE	2
33	130-4PHB	BOLT 5/16"-18 NC. X 3/4" ZINC	16
34	130-4PHO	FLAT WASHER 5/16" S/S	16
35	052-0520	NUT 5/16"-18 NC. ZINC	16
36	051-0760	PUMP SUPPORT ASSEMBLY	2
37	052-3110	PUMP SUPPORT PLATE ASSEMBLY	4
38	005-0330	HEX. BOLT 3/8"-16 NC. X 3/4" S/S	4
39	005-0088	FLAT WASHER 3/8" S/S	8
40	051-0350	PUMP 40 M ³	1
41	051-0780	PUMP 63 M ³ (OPTION)	1
42	125-	BELLOWS ELBOW CONNECTOR	1
43	125-	STRAIGHT 1/8" MNPT X 1/4" HOSE	4
44	003-0074	SUPPORT	4
45	101-0190	HEX. BOLT M8 X 30 ZINC	4
46	001-0199	REAR PANEL PRE-ASSEMBLY (OPTION)	1
47	052-4220	RIVNUT 1/4"-20 ALUMINIUM (OPTION)	4
48	004-0286	RIVNUT 1/4"-20 ALUMINIUM (OPTION)	1
49	056-0130	SCREW 1/4"-20 X 3/4" RND SLOT BRASS (OPTION)	4
50	052-0420		4



420A

420A MC-40 REAR VIEW

ITEM: _____

MAT: _____

DATE: 00-02-10

SCALE: 1

BY: SKL/VAIN L

APP: _____

PLATE: 12-76

SIPROMAC

ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

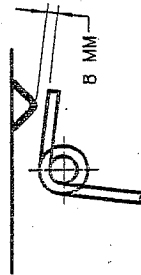
005-0600

MODIFIED VIEW ITEM #1	M.A.L.
04-12-14	
03-12-09	J.C.
00-02-10	S.L.

MODIFICATION	DATE	INT.
REDRAWN/ MODIFIED GUIDARM SEE DETAIL "A"		

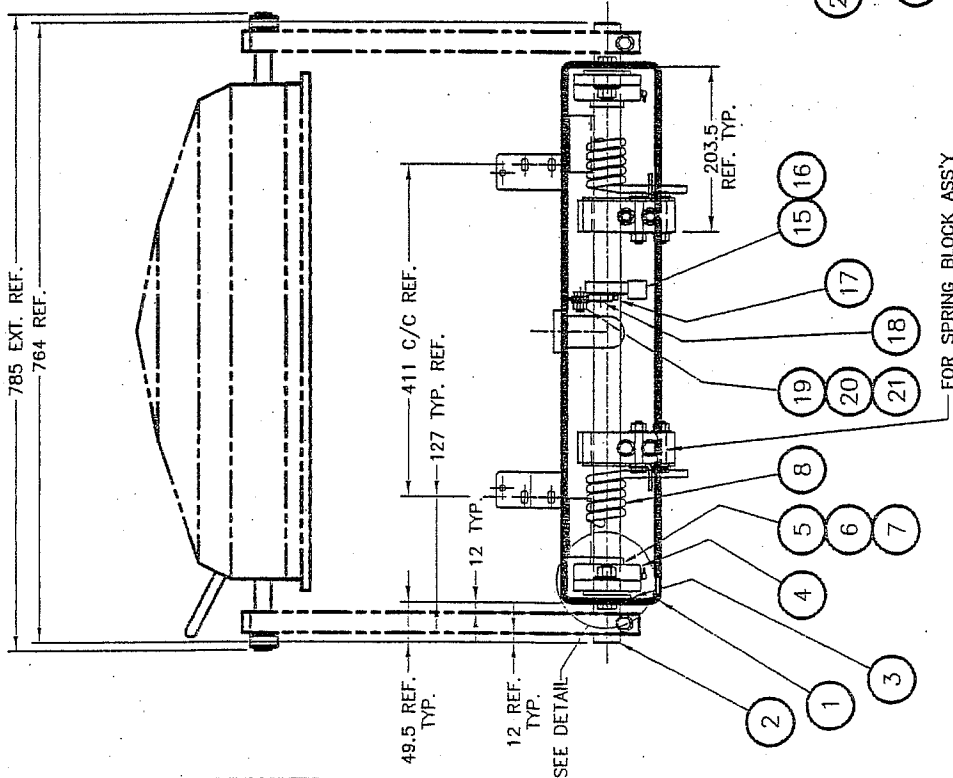
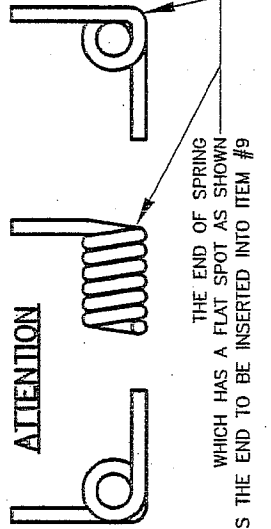
SPRING ADJUSTMENT PROCEDURE

- A- PLACE COVER UP (ARM VERTICAL) TO FREE TENSION OF SPRINGS.
- B- LOOSEN BOLTS ITEMS #10 ON THE LEFT & RIGHT SPRING SUPPORT PLATE ASSY (ITEM #9).
- C- TURN SPRING/BLOCK ASSEMBLY TO OBTAIN A SPACE APPROX. 8MM (5/16") AS SHOWN BELOW.

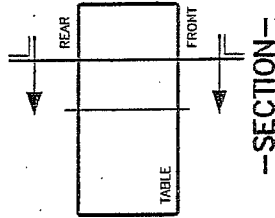


E- RETIGHTEN BOLTS ON THE LEFT & RIGHT SPRING SUPPORT PLATE ASS'Y. (ITEMS #10).

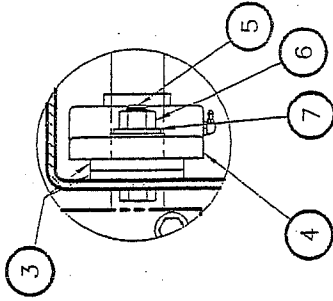
ATTENTION



ITEM	PART #	DESCRIPTION	QTY.
1	005-0327	TABLE ASSEMBLY	1
2	002A0324	CENTRAL SHAFT	1
3	001-1542	PILLOW BLOCK SPACER	8
4	075-1650	FLANGED BEARING W/ GREASE FITTING 90°	2
5	051-0441	HEX. BOLT 1/2"-13 NC X 1 1/2" S/S	4
6	051-0630	HEX. NUT 1/2"-13 NC S/S	4
7	051-0790	FLAT WASHER 1/2" S/S	4
8	008-0319	CENTRAL SHAFT SPRING	2
9	004A1071	SPRING SUPPORT ASSY	2
10	052-0775	HEX. BOLT 3/8"-24 NC. X 2 1/2" ZINC	4
11	002A0319	SPRING BLOCK	2
12	052-0777	HEX. BOLT 3/8"-24 NC. X 3" ZINC	4
13	052-2060	FLAT WASHER 3/8" ZINC	12
14	052-3128	HEX. NUT 3/8"-24 NC. ZINC	8
15	005-0154	MICRO-SWITCH COLLAR	1
16	051-0334	SET SCREW 3/8"-16 NC. X 3/8" S/S	2
17	028-0610	MICRO-SWITCH	2
18	001-1294	MICRO-SWITCH FIXATION PLATE	2
19	051-0180	HEX. BOLT 1/4"-20 NC. X 1/2" S/S	2
20	051-0740	FLAT WASHER 1/4" S/S	4
21	051-0580	HEX. NUT 1/4" S/S	2
22	052-2071	CONTACT WASHER 3/8" STEEL	4
23	056-0168	KEY 1/4" SQ X 1 1/2" W/ ROUNDED END	2
24	051-0783	WASHER 3/8" FLAT THICK SS	4



SECTION



DETAIL

MACHINE: 420A
 PART: CENTRAL SHAFT ASSEMBLY
 ITEM: _____ QTY: 1
 DATE: 99-11-18
 SCALE: 1:1
 N.T.S.
 METRIC TOLERANCE: 0.00 ± 0.005
 DIMENSIONAL TOLERANCE: 0.00 ± 0.005
 SURFACE FINISH: 0.00 ± 0.005
 MATERIAL: 304 STAINLESS STEEL
 DRAWN BY: J. S. L. / 12/16
 CHECKED BY: J. S. L. / 12/16
 DATE: 99-11-18
 SCALE: 1:1
 N.T.S.
 SIPROMAC
 ST-GERMAIN DE GRANTHAM
 QUEBEC CANADA

SPRING BLOCK ASSY

DETAIL

REV.	DESCRIPTION	DATE	INT.
E	MODIFIED NEW ITEM #1	04-12-14	M.A.L.
E	004A1071 WAS 001A1316	04-12-01	M.A.L.
D	051-0782 EVMT 052-2060	03-11-20	L.T.
C	ITEM 3 (001-1542) QTY 8 WAS 4. SEE MODIF. No A-0291	00-06-02	S.L.
B	REDRAWN/ NEW SPRING BLOC	99-11-18	S.L.

1004A0124

1004A0124

MODEL 420A

COVER ADJUSTMENT PROCEDURE

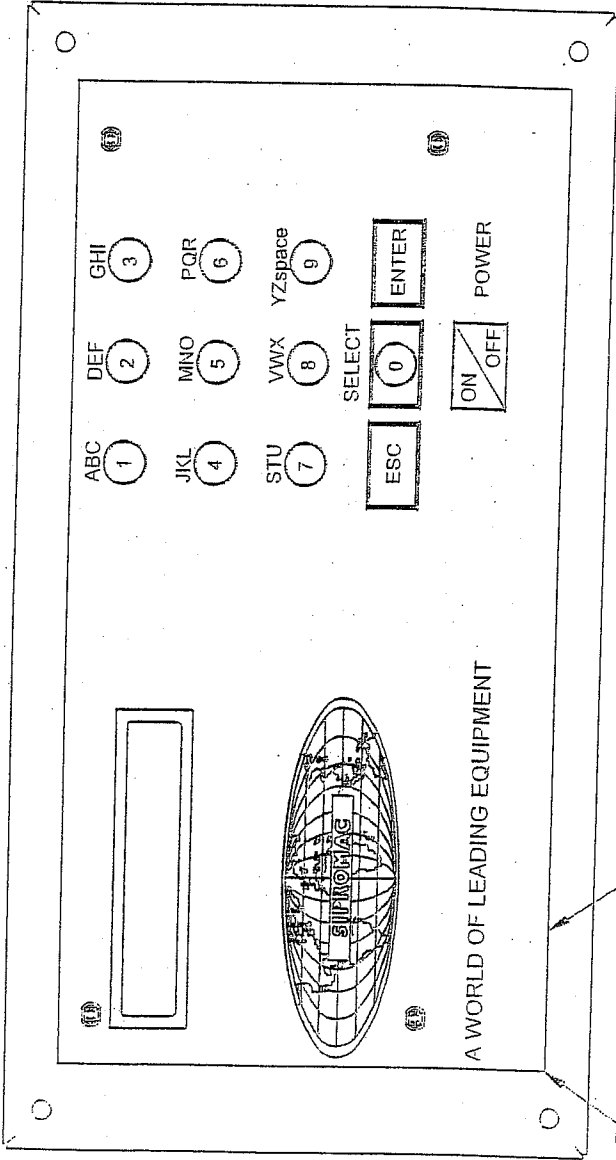
Reference Drawing:# 005-0600
004A0124

PROBLEM: MACHINE TABLE AND COVER SEEMS TO BE STRAIGHT, LID GASKET IS GOOD BUT COVER DOES NOT SIT PROPERLY ON BOTH SIDES OF TABLE.

1. Floor should be flat (within 1/8" approx.).
2.
 - 2.1 Mark position of original adjustment of lower shaft position & measure guide arm length. (See drawing # 005-0600; items: #13 & #2).
 - 2.2 Loosen the two nuts on the guide arm (See drawing # 005-0600; items #13).
 - 2.3 Now move the cover each side and check how cover sits on the table. Distance between table and lid gasket should be under 1/16" approx. If so, go to step 3.0 for guide arm adjustment. Otherwise go to step 2.4 for central arm adjustment.
 - 2.4 Put chamber in upright position and check with a square angle to see if arms are parallel. If not, loosen bolt at the end of one arm and adjust until square (See drawing # 005-0600; items #6, #8 & #9).
 - 2.5 When closing cover (guide arm still loose), if cover is not sitting properly on either the front or rear of the table, you have to change the height of a central bearing. (See drawing # 004-0124; item #4) until cover is sits properly each side (less than 1/16")
Keep in mind that the rear of the cover should touch the table before the front
3. Adjustment of guide arm: two things have to be adjusted, the length and the lower axis position. Each of these should be adjusted separately. Fix the lower axis in a central position, then adjust guide arm length when chamber is at the left and at the right, Adjustment can be done a couple of times until everything is ok.

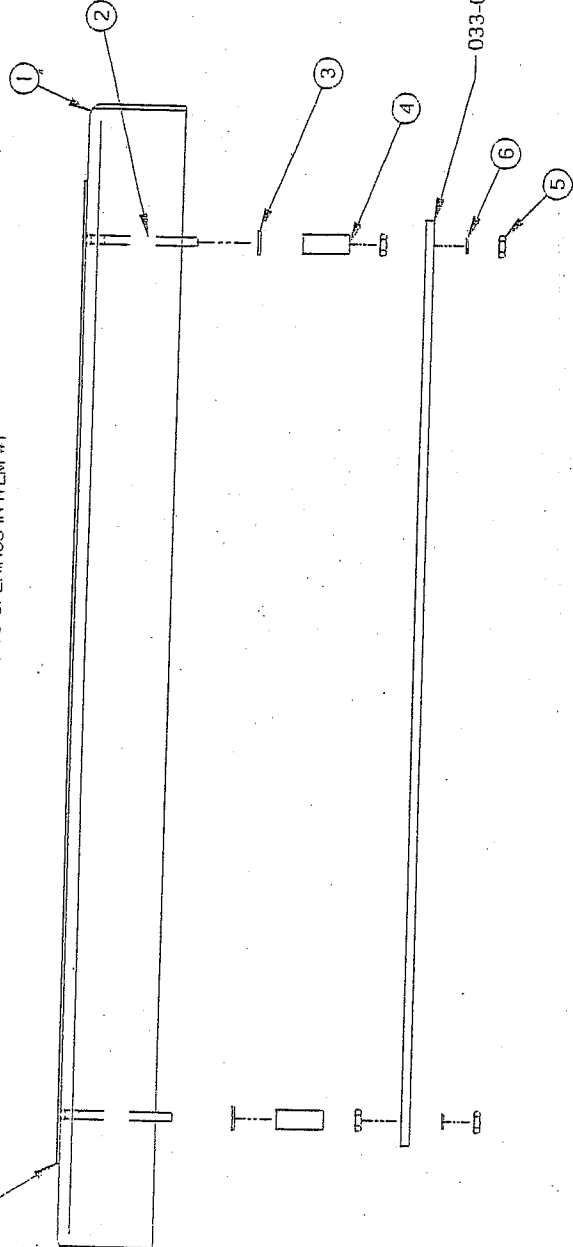
1005A0583

ITEM	PART #	DESCRIPTION	QTY.
1	004A0425	FRONT MC-40 SUPPORT PRE-ASSY	1
2	051-0092	SCREW #4-40 x 1 1/4" FLAT SLT S/S	4
3	051-0713	WASHER #4 FLAT S/S	4
4	058-0120	CPVC SPACER 0.120" x 1/4" x 5/8"	4
5	051-0540	NUT #4-40 HEX S/S	4
6	051-0715	WASHER #4 LOCK SS	8
			4



033-0015 OR
033-0017 OR
033-0018 OR
KEY BOARD REF.
NOT INCLUDED

USE JIG TO INSTALL, IN REGARDS TO OPENINGS IN ITEM #1

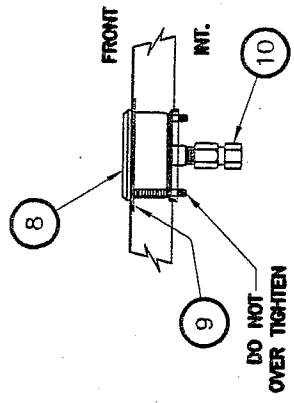
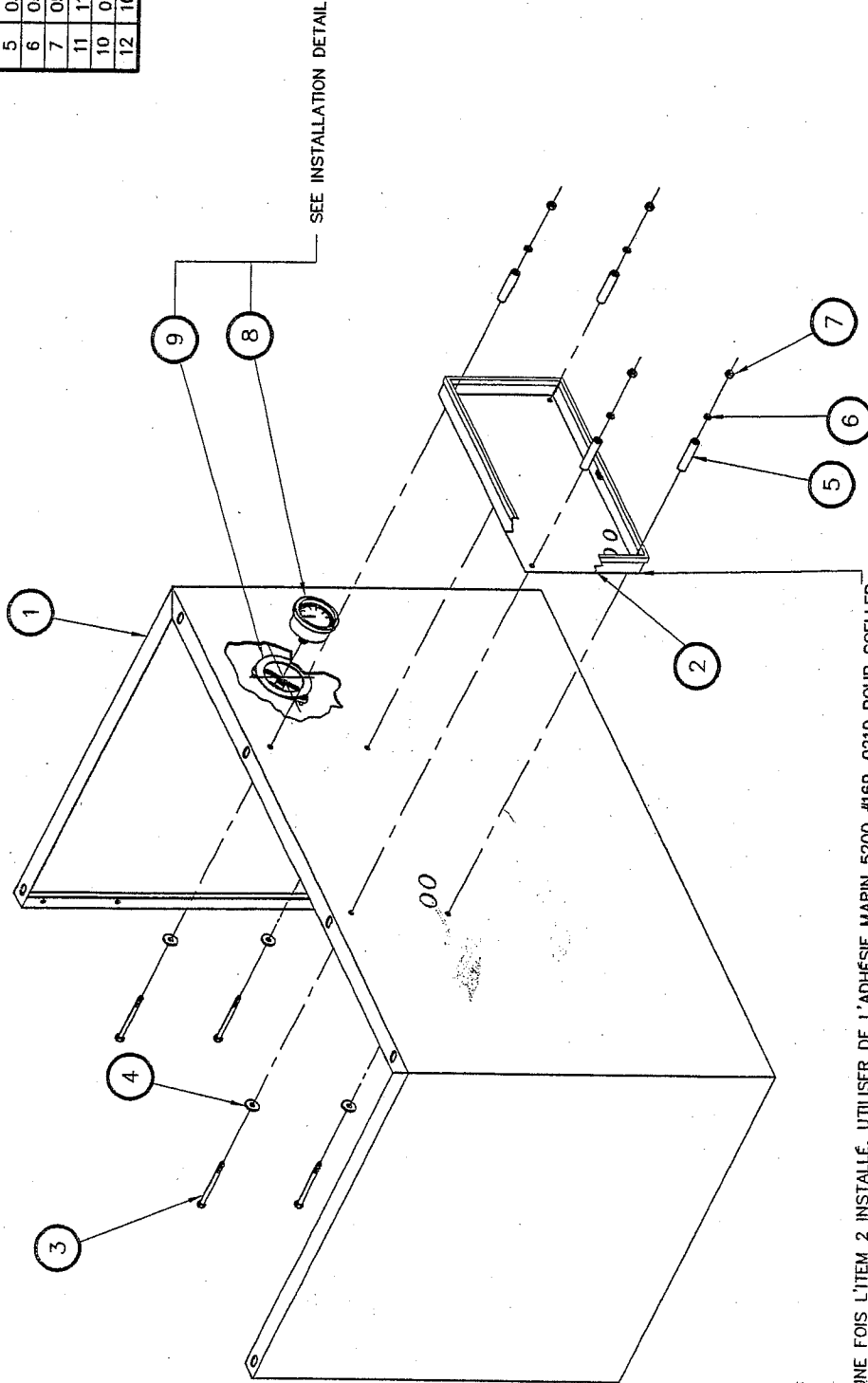


MACHINE	420A, 450A, 450T, 500A, 550A, 600A, 620A & 650A	DEPT. VOL. INST. REF. INST.	1.01	1.0000
PART	FRONT MC-40 SUPPORT ASSY	TOLERANCE	± 0.05	± 0.020
ITEM		SURFACE	± 0.05	± 0.020
MAT.		SOLDER	± 0.05	± 0.020
				N.T.S.
DATE	05-09-01	DATE	05-09-01	1
BY	M.A.L.	BY	M.A.L.	1
DRWN		DRWN		
FIG		FIG		
DATE		DATE		
INT.		INT.		

SIPROMAG
ST-GERMAIN DE GRANVILLE
QUEBEC CANADA

005A0583

ITEM	PART #	DESCRIPTION	QT.
1	004B0437	STRUCTURE PRE-ASSY	1
2	005A0584	REAR MC-40 SUPPORT ASSY.	1
3	051-0287	BOLT 1/4"-20 x 3 1/4"	4
4	051-0757	FLAT WASHER 1/4" THICK	4
5	058-0140	PLAST. SPACER .266" x 1/2" x 2 1/4"	4
6	051-0750	WASHER 1/4" LOCK SS	4
7	051-0580	NUT 1/4"-20	4
11	114-0260	VACUUM GAGE W/ SUPPORT	1
10	001-1869	HOLDING WASHER (FOR VAC. GAUGE)	1
12	101-0038	ISTR. 1/4" FNPT x 3/8" I.P. COMP. BR.	1



-INSTALLATION DETAIL-

-UNE FOIS L'ITEM 2 INSTALLÉ, UTILISER DE L'ADHÉSIF MARINE 5200 #169-0210 POUR SCELLER LE HAUT, LES CÔTÉS ET LES COINS DU BAS (LE CÔTÉ DU DESSOUS N'EST PAS SCELLÉ)
 -ONCE ITEM 2 IS INSTALLED, USE 169-0210 5200 MARINE ADHESIVE TO SEAL TOP, SIDES & BOTTOM CORNERS (UNDER SIDE NOT SEALED).

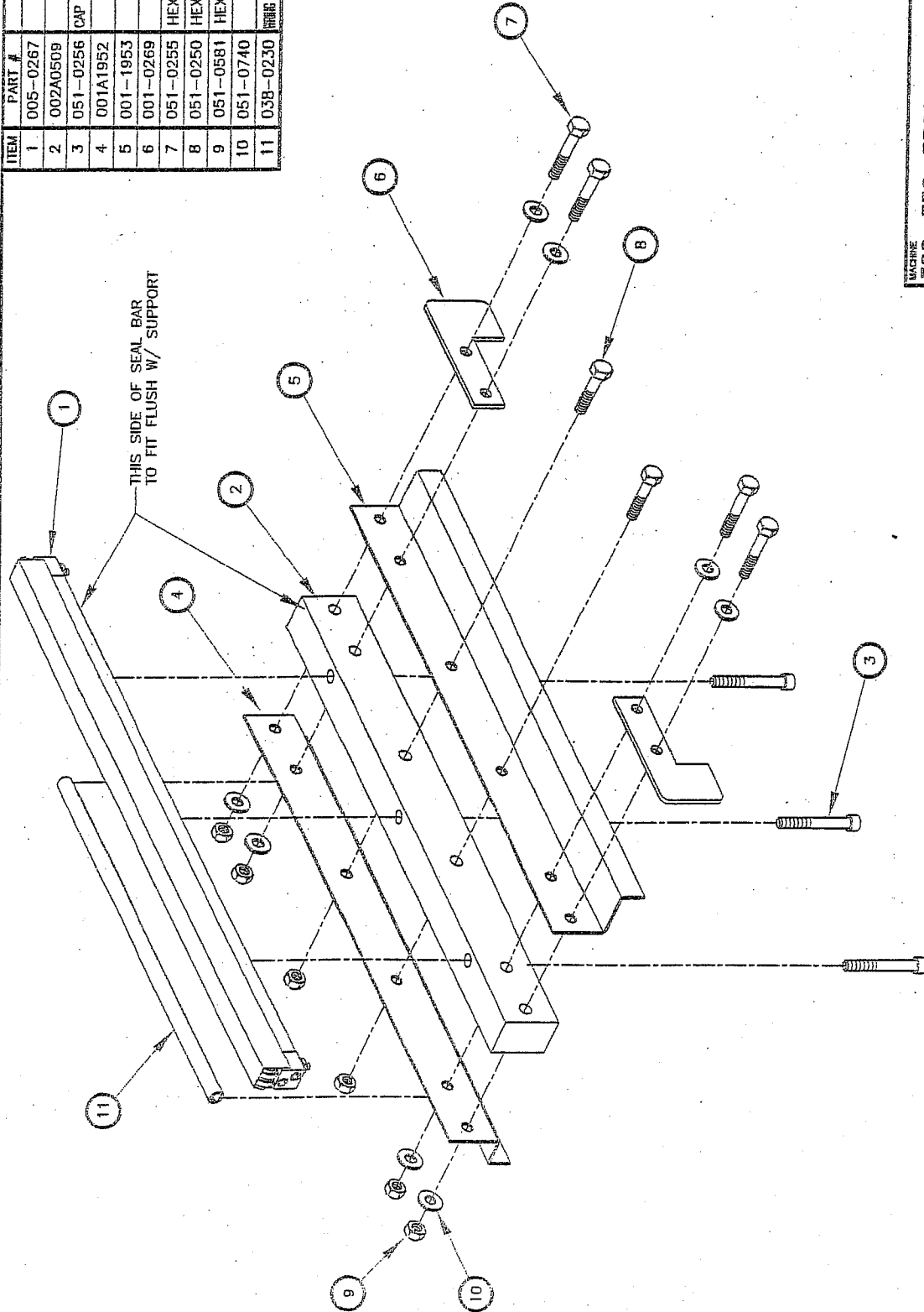
MACHINE	420A	INCH	TO METRIC	DEPT	M	DR.	1
PART	MC-40 STRUCTURE ASSY	TOLERANCE	TO DIMS	DATE	05-09-01	MC	
ITEM		0 ± .05	.05 ± .005	DATE	05-09-01	MC	
MAT		0.000 ± .0005	0.000 ± .0005	DATE	05-09-01	MC	
		ANGLE ± 1'	N.T.S.	APP.			

REDRAWN	05-09-01	M.A.L.
MODIFICATION	DATE	INT.

SIPROMAC
 ST-GERMAIN DE GRANTHAM
 QUEBEC CANADA

BS-11-03
 005B0599

ITEM	PART #	DESCRIPTION	QTY.
1	005-0267	SEAL BAR PRE-ASSEMBLY	1
2	002A0509	SEAL BAR SUPPORT (TABLE)	1
3	051-0256	CAP HEX. BOLT 1/4"-20 NC X 1 3/4" S/S	3
4	001A1952	EXTERIOR BELLOWS COVER	1
5	001-1953	INTERIOR BELLOWS COVER	1
6	001-0269	SEAL BAR GUIDE	2
7	051-0255	HEX. BOLT 1/4"-20 NC. X 1 3/4" S/S	4
8	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	2
9	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	6
10	051-0740	FLAT WASHER 1/4" S/S	8
11	038-0230	SPRING BUSH W/ BRASS BEARING (0.35" X 0.5" X 207) PPG (0.92)	1



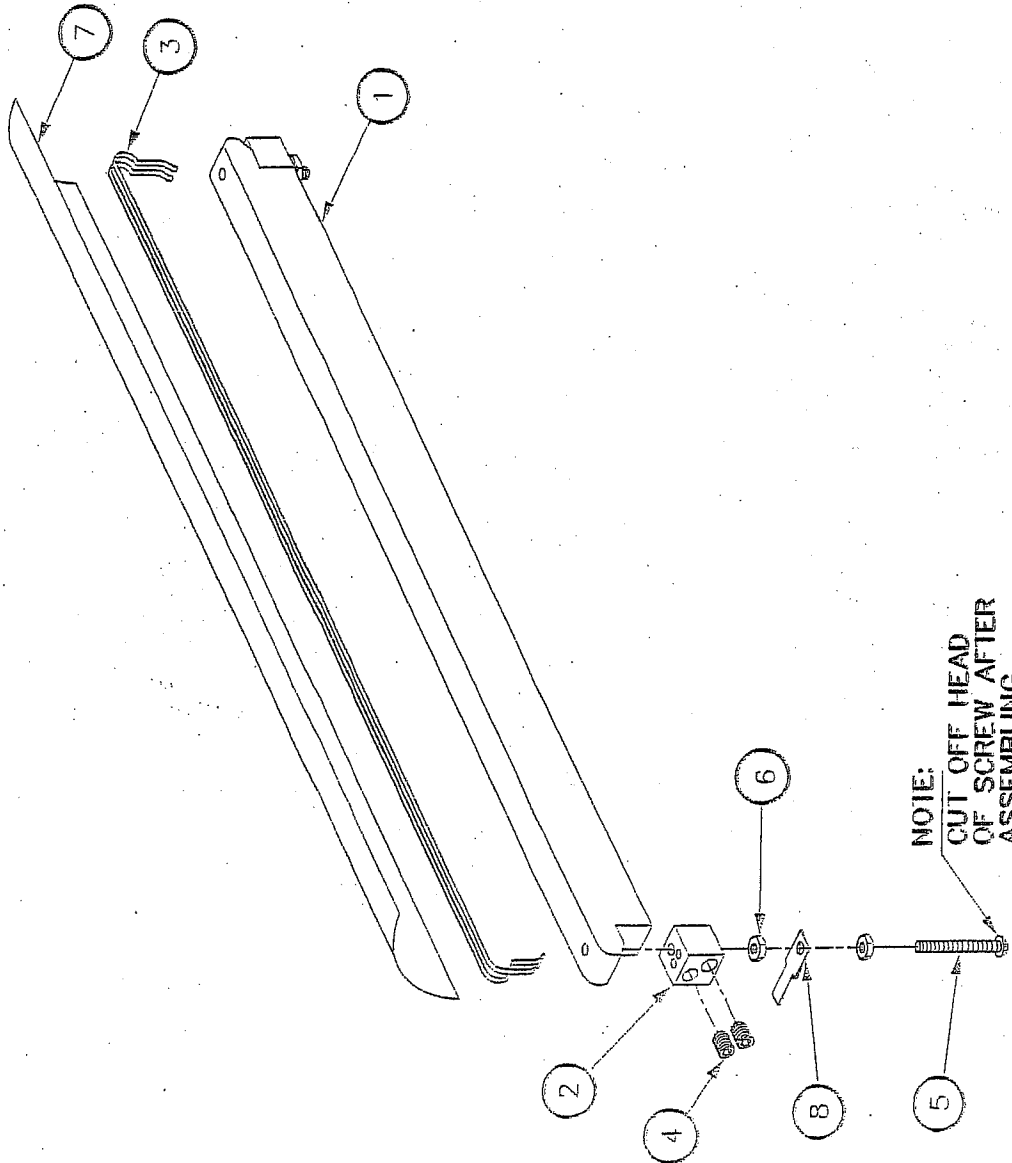
420A	4
350D	2
350	1
MACHINE	QTY
SIPROMAC	
ST-GERMAIN DE GRANITAH	
QUEBEC CANADA	

MACHINE: 300, 350, 350D & 420A
 PART: SEAL BAR ASSEMBLY W/ SUPPORT
 METRIC: 1/4" ± .015
 1/2" ± .015
 3/4" ± .015
 1" ± .015
 1 1/2" ± .015
 2" ± .015
 3" ± .015
 4" ± .015
 5" ± .015
 6" ± .015
 8" ± .015
 10" ± .015
 12" ± .015
 15" ± .015
 20" ± .015
 25" ± .015
 30" ± .015
 35" ± .015
 40" ± .015
 45" ± .015
 50" ± .015
 60" ± .015
 70" ± .015
 80" ± .015
 90" ± .015
 100" ± .015
 N.T.S.
 DATE: 05-05-09
 BY: M. ALEBLANC
 DATE: 05-05-09
 SCALE: 1" = 1" SEE LIST
 NO. 1005A0046

REDRAWN/ADDED 300
 MODIFICATION
 05-05-09 M.A.L.
 DATE INT.

1005--0267

ITEM	#PART	DESCRIPTION	QTY
1	002-0015	SEAL BAR	1
2	002-0031	CONNECTOR	2
3	039-0200	SEALING ELEM. STD. TWIN (2x566 mm EA.)	3.90
4	052-0395	SET SCREW 1/4"-20 X 5/16" (OVAL POINT)	4
5	052-0250	SCREW #8-32 X 1 1/2" RND SLOT BRASS	2
6	051-0550	NUT #8-32 S/S	4
7	176-0200	TEFLON TAPE (5S) ADHESIVE (436mm EA.)	0.056
B	027-0400	CONNECTOR ADAPTOR	2



NOTE:
CUT OFF HEAD
OF SCREW AFTER
ASSEMBLING

420A	4
350D	2
350	1
300	1
MACHINE	QTY

MACHINE: 300, 350, 350D & 420A
 PART: SEAL BAR PRE-ASSEMBLY
 DATE: 97-09-03
 BY: FROVENCHE
 APP: P

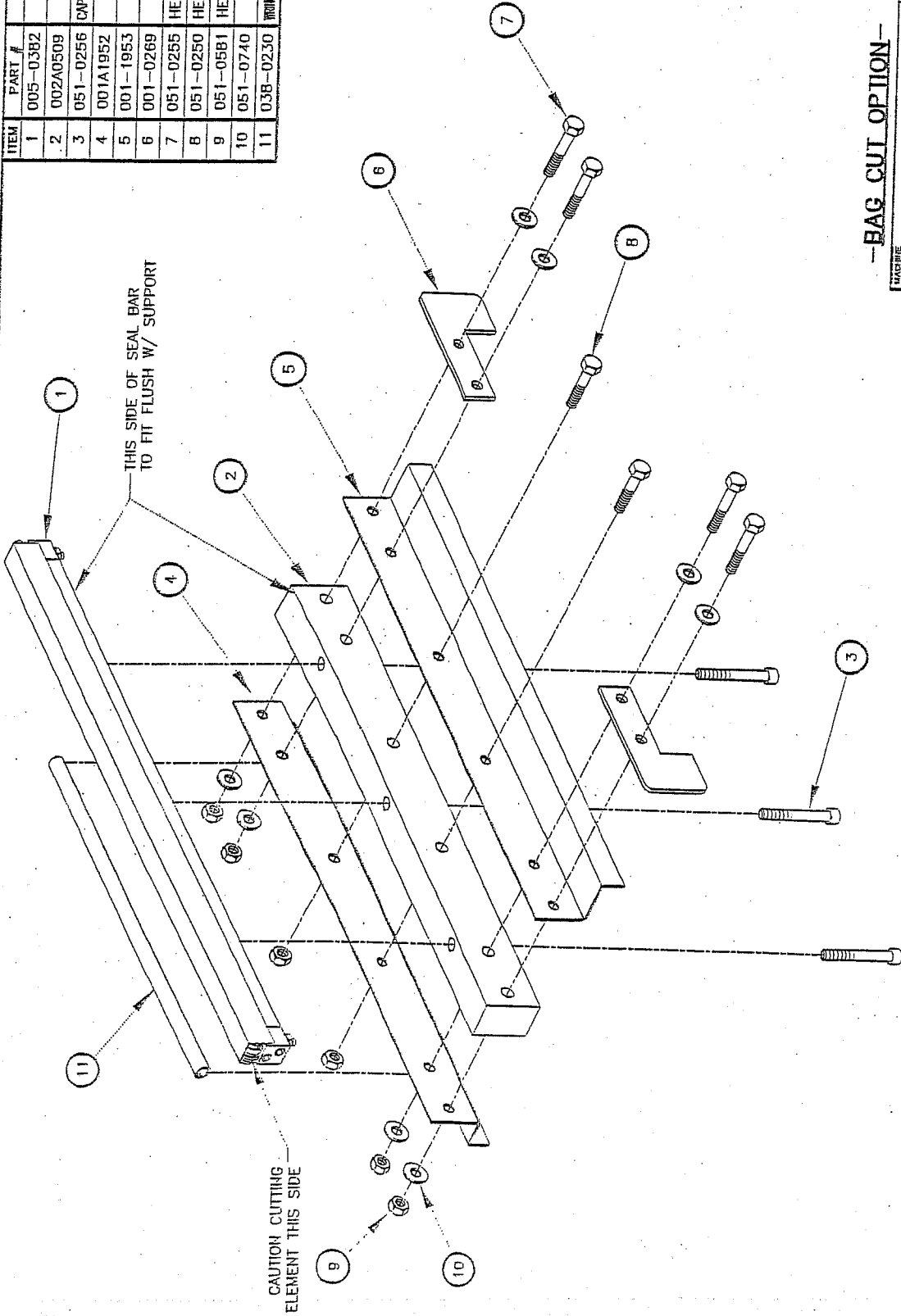
TELETYPE: N.T.S.
 TOLERANCE: ± 0.1
 SURFACE: ± 0.05
 FINISH: ± 0.05
 WEIGHT: ± 0.020

MFG: SIPROMAC
 ST-GEORGEVILLE DE GRANBY
 QUEBEC CANADA

005--0267
 005--0267

E	ADDED 300	05-09-27	M.A.L.
D	MODIFICATION #A-1398 (CONNECTEUR)	04-04-19	J.G.
C	REDRAWN/ MODIF. A-0216	97-09-03	A.P.
LET.	MODIFICATION	DATE	INT.

ITEM	PART #	DESCRIPTION	QTY.
1	005-0382	SEAL BAR PRE-ASSEMBLY	1
2	002A0509	SEAL BAR SUPPORT (TABLE)	1
3	051-0256	CAP HEX. SKT. BOLT 1/4"-20 NC X 1 3/4" S/S	3
4	001A1952	EXTERIOR BELLOWS COVER	1
5	001-1953	INTERIOR BELLOWS COVER	1
6	001-0269	SEAL BAR GUIDE	2
7	051-0255	HEX. BOLT 1/4"-20 NC. X 1 3/4" S/S	4
8	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	2
9	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	6
10	051-0740	FLAT WASHER 1/4" S/S	6
11	03B-0230	ADHESIVE TAPE (0.25" X 0.5" X 267) PVC (0.02)	1



—BAG CUT OPTION—

300, 350, 350D & 420A
SEAL BAR ASSEMBLY W/ SUPPORT

SCALE: 1" = 10"

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

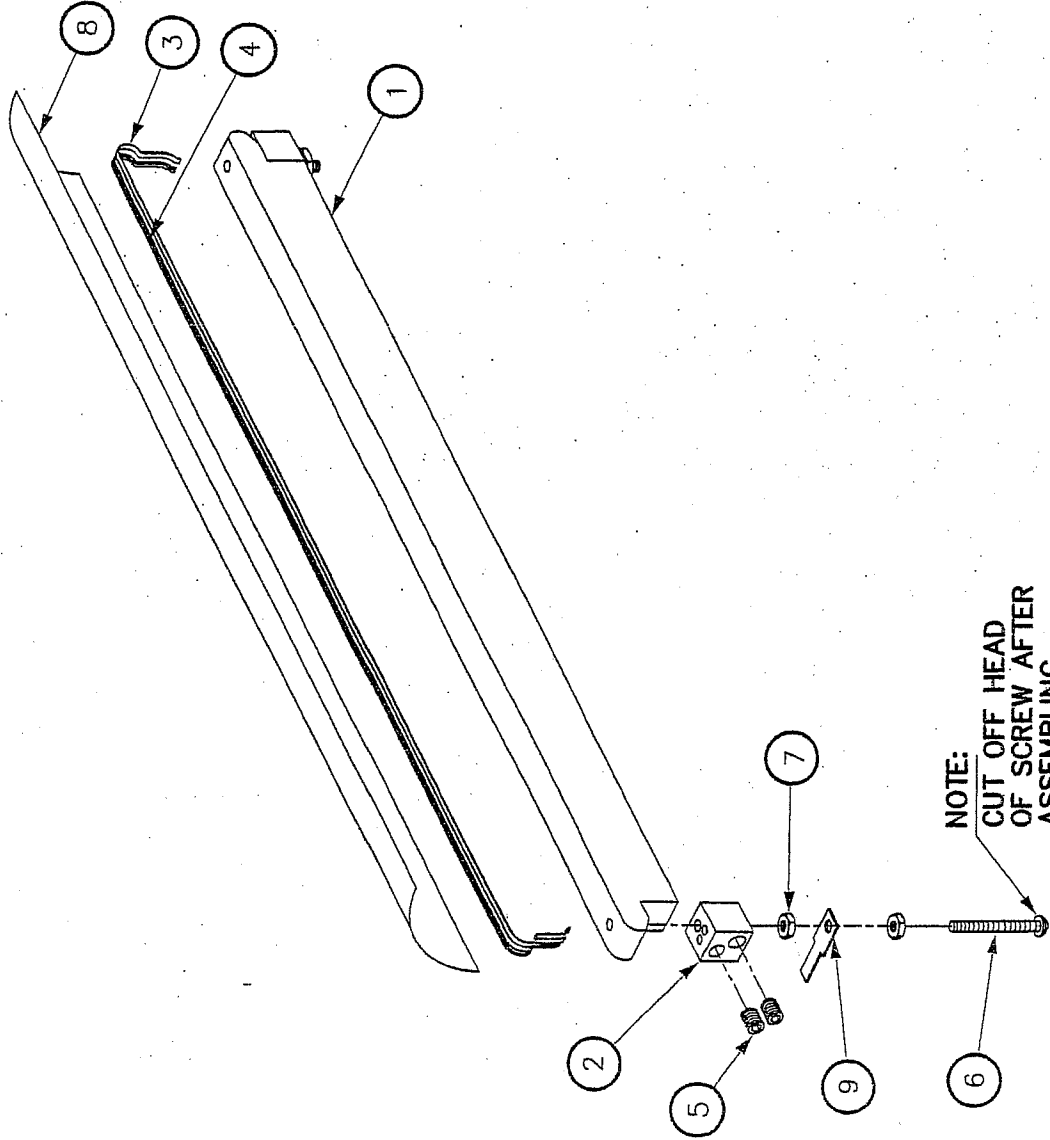
SEE LIST
A0558

05-05-09 M.A.L.
DATE IRT.

REDRAWN MODIFICATION

1005-0382

ITEM	#PART	DESCRIPTION	QT.
1	002-0015	SEAL BAR	1
2	002-0031	CONNECTOR	2
3	039-0230	REFLEX BAND 2.5 MM (566mm EA.)	0.057
4	039-0270	"I" PROFILE CUT. ELEM. (566mm EA.)	0.057
5	052-0395	SET SCREW 1/4"-20 X 5/16" (OVAL POINT)	4
6	052-0250	SCREW #8-32 X 1 1/2" RND SLOT BRASS	2
7	051-0550	NUT #8-32 S/S	4
8	176-0200	TEFLON TAPE (5S) ADHESIVE (436mm EA.)	0.055
9	027-0400	CONNECTOR ADAPTOR	2



NOTE:
CUT OFF HEAD
OF SCREW AFTER
ASSEMBLING

-BAG CUT OPTION-

420A	4
350D	2
350	1
300	1
MACHINE	QTY

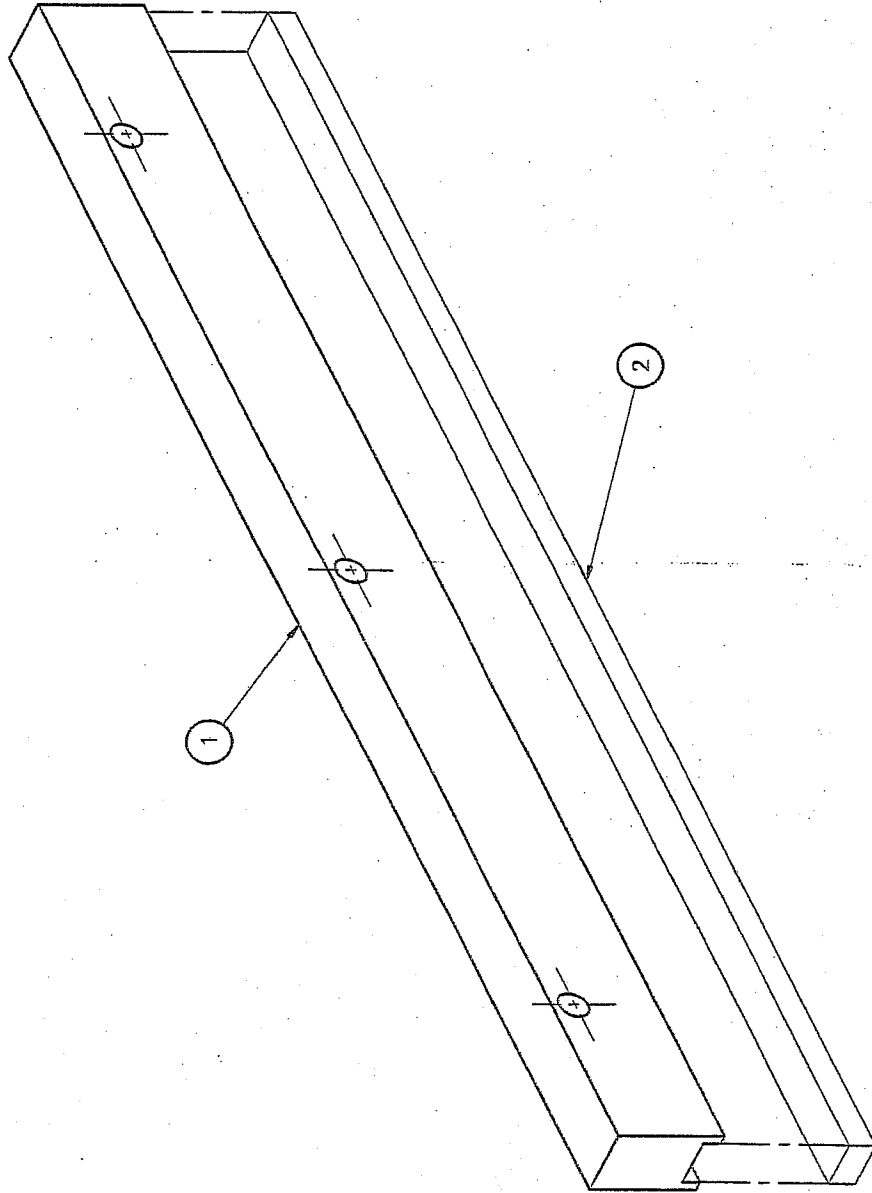
MACHINE: 300, 350, 350D & 420A
 PART: SEAL BAR PRE-ASSEMBLY
 DATE: 97-09-03
 BY: A.P.
 APP: [Signature]
 DATE: 97-09-03
 BY: A.P.
 APP: [Signature]
 DATE: 97-09-03
 BY: A.P.
 APP: [Signature]

MODIFICATION	DATE	INT.
F MODIFICATION #A-039B (CONNECTEUR)	04-04-19	J.G.
E ADDED 300	98-06-03	L.M.
D REDRAWN / MODIF. A-0216	97-09-03	A.P.

SIPROMAC
 ST-GERMAIN DE GRANTHAM
 QUEBEC CANADA
 M
 005-0382

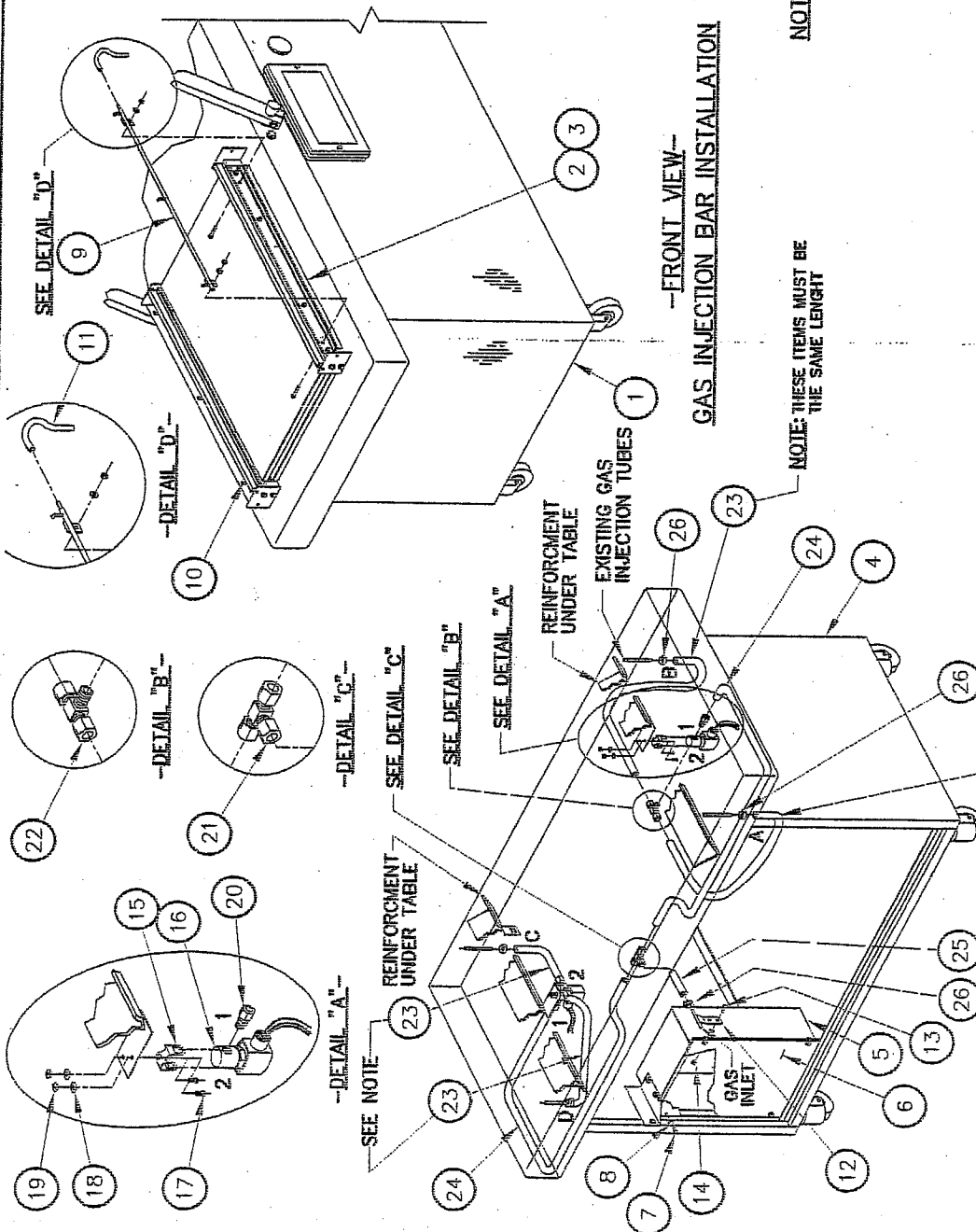
1004A0126

ITEM	PART #	DESCRIPTION	QTY.
1	002AD406	UPPER SEAL BAR SUPPORT	1
2	00B-0316	UPPER SEAL BAR RUBBER	1



MACHINE	420A	SCALE	2
PART	UPPER SEAL BAR PRE-ASS'Y	DATE	99-08-02
ITEM		BY	S. LAROCHE
MAT		APP.	
METRIC TOLERANCE 0.1 ± 0.1 0.2 ± 0.2 0.3 ± 0.3 0.5 ± 0.5 1.0 ± 1.0 ANGLE ± 1°		N.T.S. N.T.S. N.T.S.	
SIPROMAC		ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
B REDRAWN		DATE	99-08-02
LET.		INT.	
MODIFICATION		004A0126	

ITEM	PART #	DESCRIPTION	QT.
1	005-0336	MACHINE ASSEMBLY FRONT VIEW	1
2	005-0046	SEAL BAR ASSY W/ SUPPORT	4
3	005-0558	SEAL BAR ASSY W/ SUPPORT (BAG CUT OPT.)	4
4	005-0337	MACHINE ASSEMBLY REAR VIEW	1
5	005-0035	ELECTRICAL BOX ASSEMBLY	1
6	004-0281	ELECTRICAL BOX COVER PRE-ASSY	1
7	051-0180	HEX. BOLT 1/4"-20 NC. X 1/2" S/S	4
8	051-0740	FLAT WASHER 1/4" S/S	4
9	005B0042	FRONT GAS INJECTION BAR ASSY (OPT.)	2
10	005A0807	REAR GAS INJECTION BAR ASSY (OPT.)	2
11	008-0464	GAS INJECTION CONN. TUBE (OPTION)	4
12	005-0323	GAS INLET ASSEMBLY	1
13	051-0190	HEX. BOLT 1/4"-20 NC. X 1/2" S/S (OPTION)	1
14	051-0580	HEX. NUT 1/4"-20 NC. S/S (OPTION)	1
15		VALVE SUPP. SUPPLIED W/ (6)	2
16	106-0010	SELENOIDE VALVE 2 WAY 1/4" NPT	2
17	051-0100	SCREW #8-32 X 3/8" PAN PHILL. S/S	4
18	051-0720	FLAT WASHER #8 S/S	4
19	051-0550	HEX. NUT #8 S/S	4
20	101-0036	STRAIGHT 1/4" MNPT X 3/8" I.P.COMP.	2
21	101-0062	"T" 3/8" I.P.COMP.	1
22	101-0065	"T" 3/8" I.P.COMP. X 1/4" MNPT X 3/8" I.P.COMP.	2
23	104-0060	TUBE 3/8" O.D. X 1/4" I.D. (POLY.) mm LG.	4
24	104-0060	TUBE 3/8" O.D. X 1/4" I.D. (POLY.) mm LG.	2
25	104-0060	TUBE 3/8" O.D. X 1/4" I.D. (POLY.) mm LG.	1
26	105-0200	COLLARS 3/8" Ø	5



NOTE:
 - PARTS 1 THRU 8 ARE EXISTING PARTS
 - PARTS 9 THRU 26 ARE PARTS SUPPLIED W/ KIT

NOTE: THESE ITEMS MUST BE THE SAME LENGTH

TO GAS INJECTION TUBES UNDER TABLE, REMOVE THE FOUR EXISTING CAPS & CONNECT HOSES, A, B, C & D

-OPTION GAS INJECTION-

420A

GAS INJECTION KIT INSTALLATION

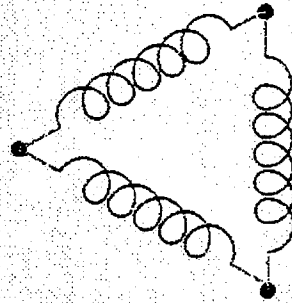
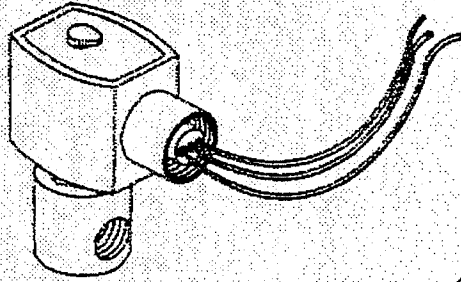
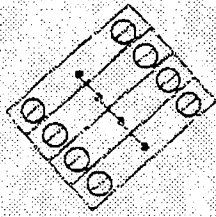
SIPROMAC

ST-GERMAIN DE GRANTHAM
 QUEBEC CANADA

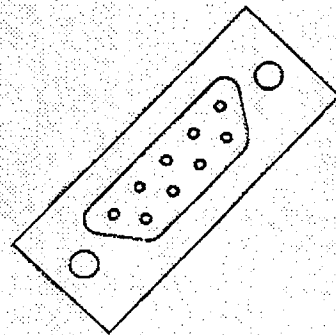
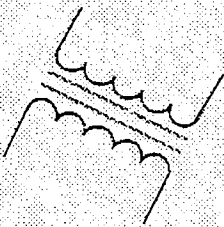
DATE 97-08-11

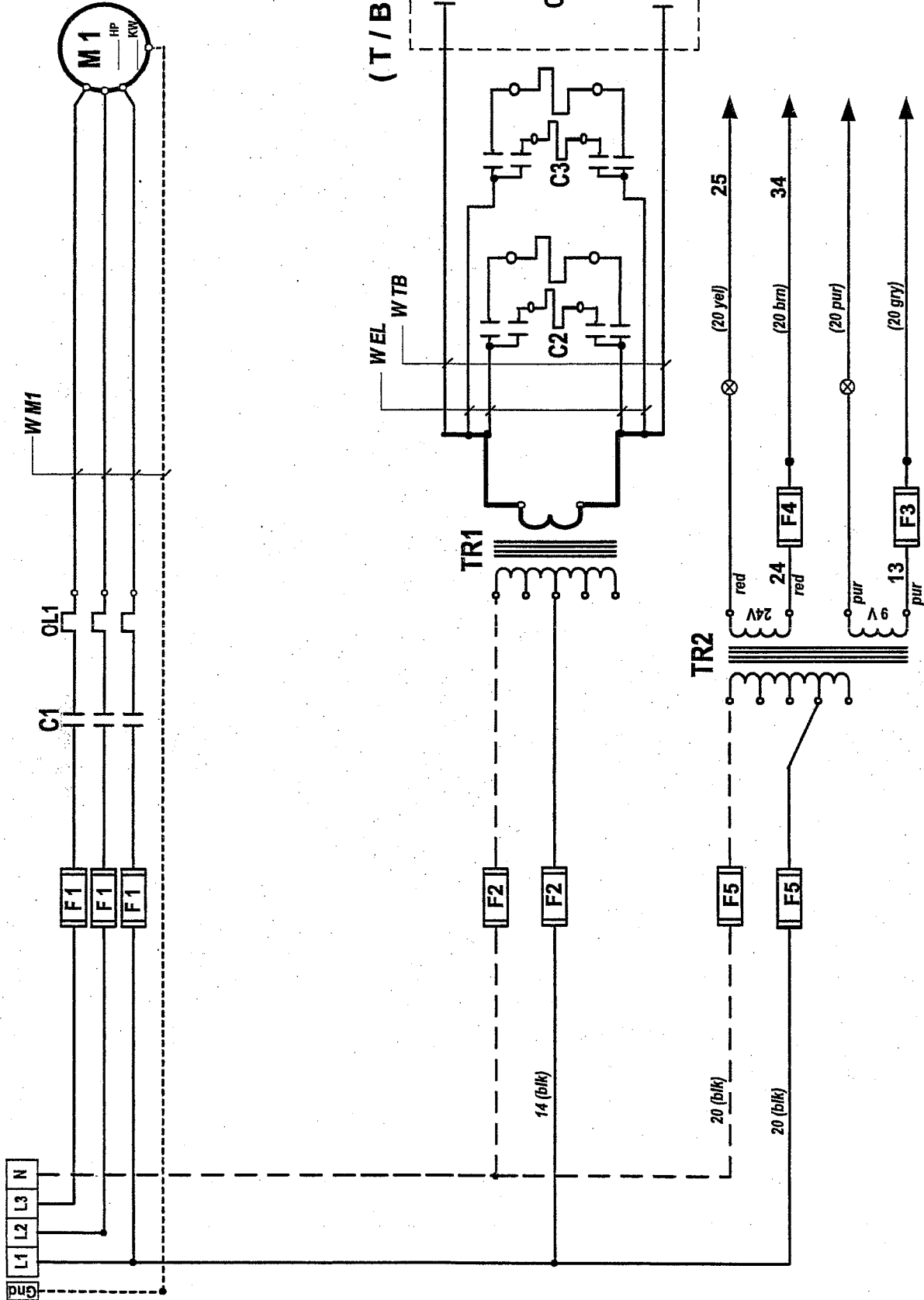
NO. 010-0016

MODIFICATION #A-0358	J.G.
REDRAWN/ MODIF. A-0217	A.P.
DATE	INT.



ELECTRICAL DRAWING

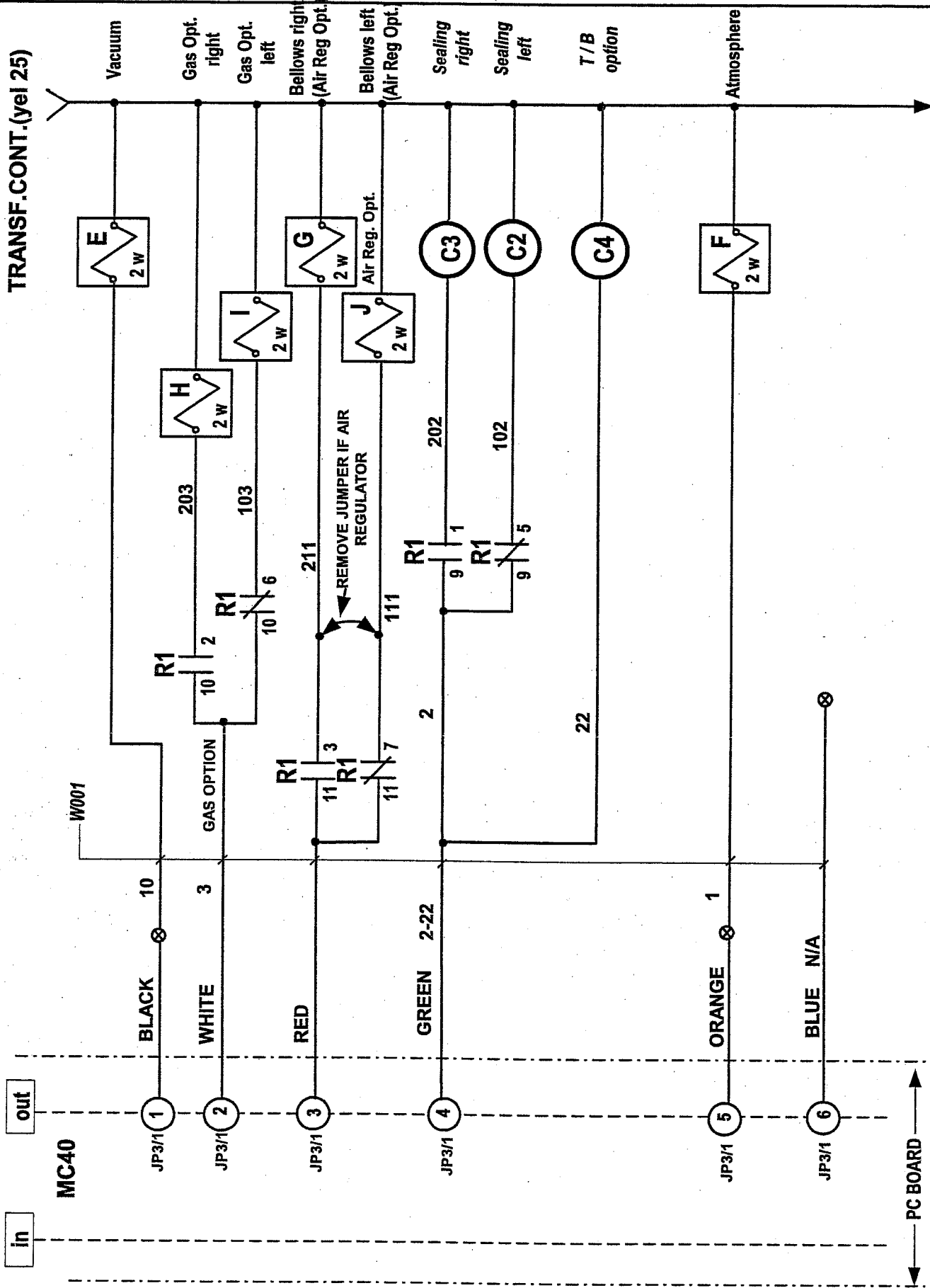




category		VACUUM PACK		model		420A		vol.		3Ph 60Hz	
system		POWER		circuit		power		block		day	
usual		MC-40		concept		PP		draw		app	
functions				PP		PP		DL		DL	
options										006-0630	
											PAGE 1 de 4

SIPROMAC
St-Germain de Grantham
QUEBEC, CANADA

TRANSF.CONT.(yel 25)

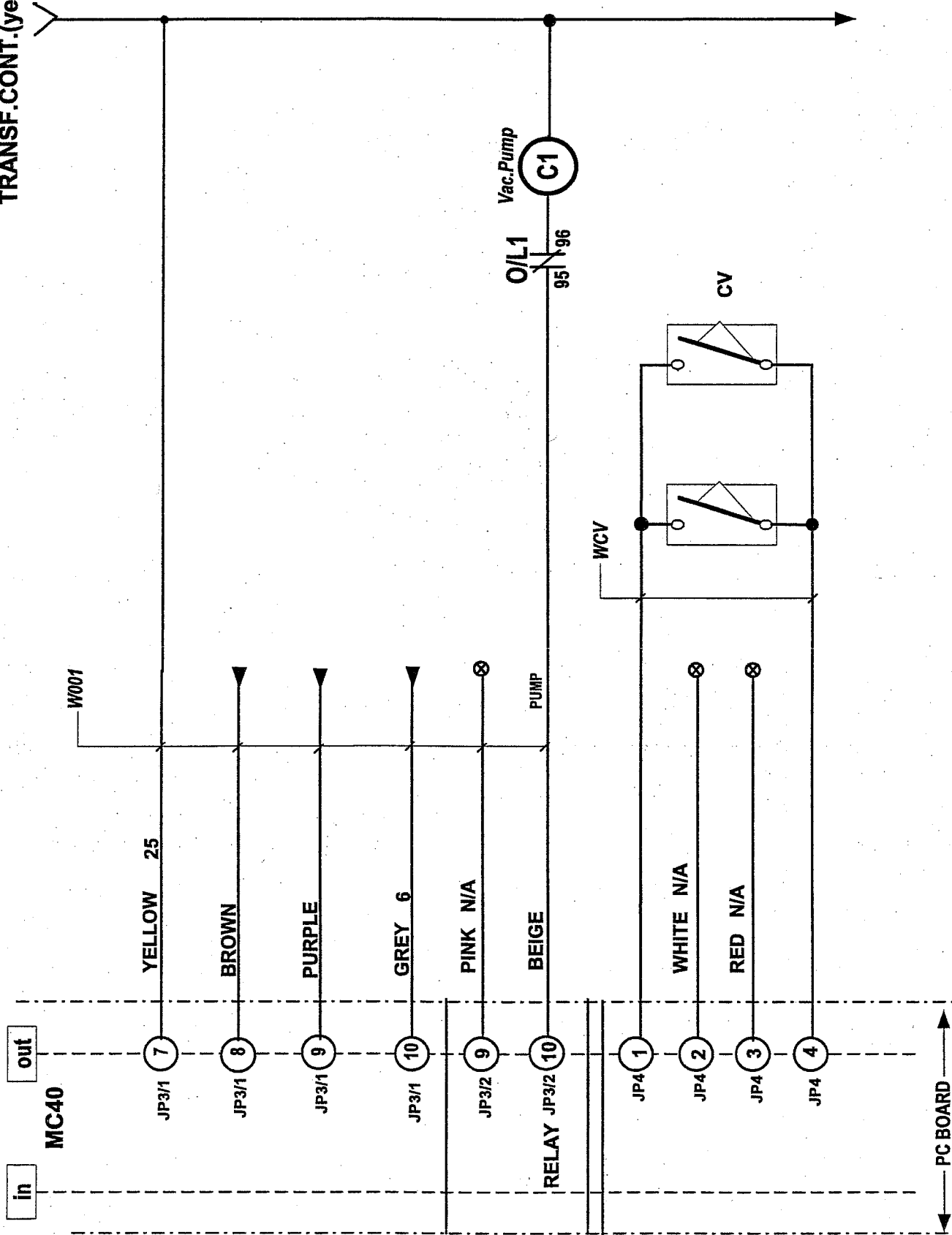


category		VACUUM PACK		model		420A		vol.		24V 60HZ	
system		Control		circuit		control		year		05 01 18	
usual functions		MC-40		concept		PP		draw		PP	
options				app		DL		concept		DL	
								SIPROMAC		PAGE 2 de 4	
								St-Germain de Grantham		006-0630	
								QUEBEC, CANADA			

RC filters must be connected on each AC coil (not shown on diagram)

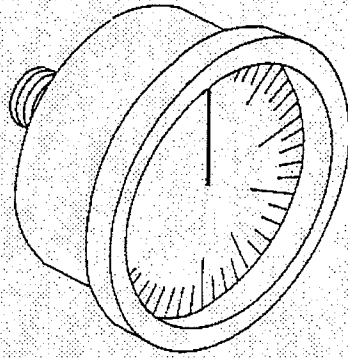


TRANSF.CONT.(yel 25)

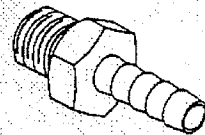
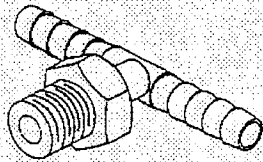


category		VACUUM PACK		model	420A	vol	24V 60Hz		SIPROMAC			
system		Control		IC-40		circuit	control		year	month	day	block
usual functions								concept	draw	PP	DL	app
options								05	01	18	006-0630	
												3 de 4

! RC filters must be connected on each AC coil (not shown on diagram)

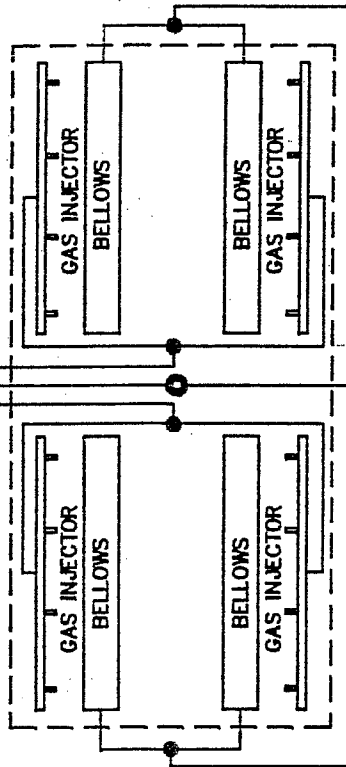
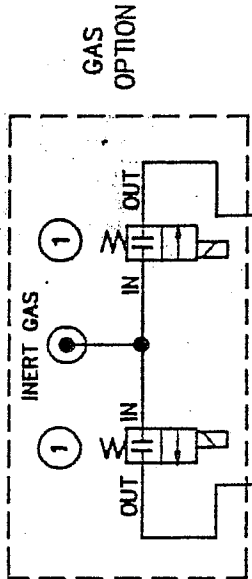


PNEUMATIC DRAWING



007-0019

-NOTE:
-FOR GAS INJECTION
KIT INSTALLATION
SEE DRAWINGS #:
420A: #010-0016
600A: #010-0017
620A: #010-0018
650A: #010-0020



AIR REGULATOR OPTION

NOTE: SET TO A
MAXIMUM OF 45 PSI

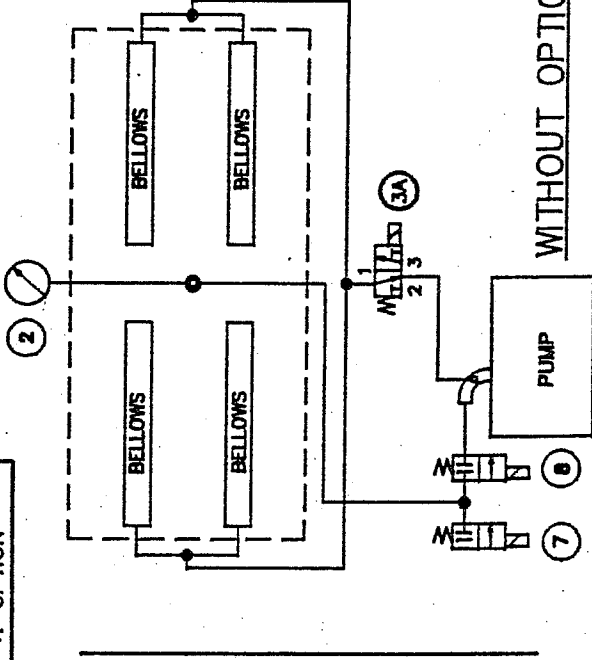
-NOTE:
-FOR AIR REGULATOR
OPTION KIT INSTALLATION
SEE DRAWINGS # 010-0019
& 650A: #010-0027
(FOR EXISTING MACHINES)

WITH OPTIONS

WITHOUT OPTION

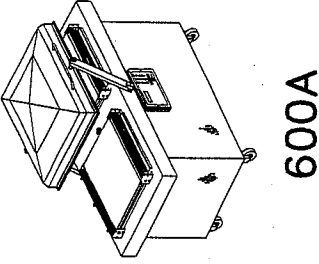
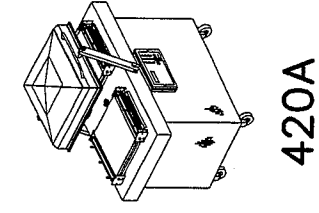
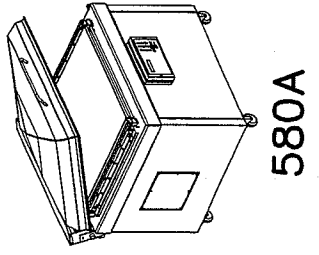
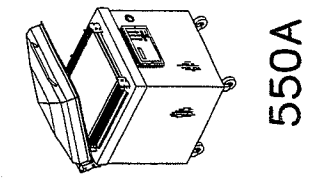
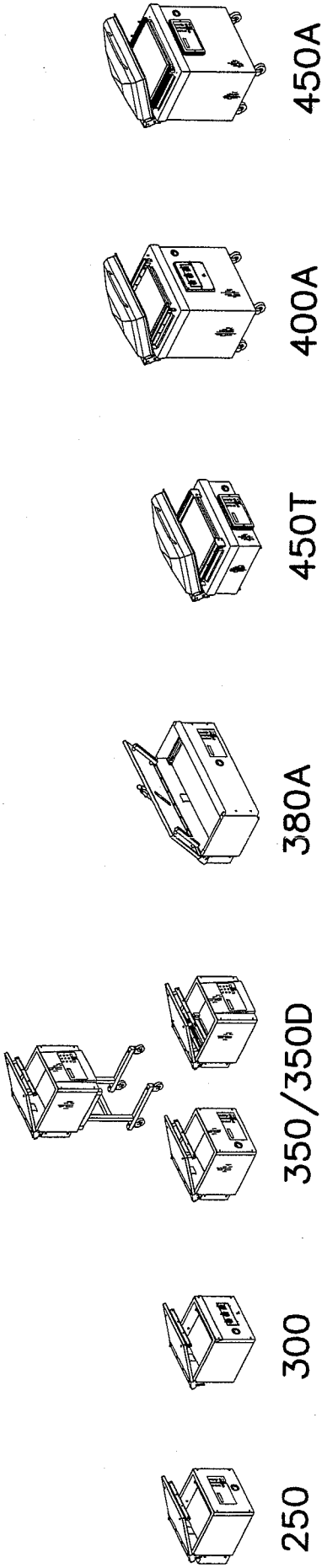
ITEM	PART #	DESCRIPTION	QT.
1	106-0010	GAS VALVE	2*
2	114-0280	VACUUM GAUGE	1
3A	106-0070	BELLOWS VALVE	1
3B	106-0070	BELLOWS VALVE	1*
4	114-0147	PRESSURE REGULATOR	1*
5	114-0245	PRESSURE GAUGE	1*
6	114-0170	PRESSURE REGULATOR SUPPORT	1*
7	106-0030	ATMOSPHERE VALVE FOR 420A	1
	106-0030	ATMOSPHERE VALVE FOR 600A, 063M ³ AND 100 M ³	
	106-0050	ATMOSPHERE VALVE FOR 600A & 620A; 160 M ³ AND 250 M ³	
8	106-0050	ATMOSPHERE VALVE FOR 650A & 700A	1
	106-0030	VACUUM VALVE FOR 420A	
	106-0050	VACUUM VALVE FOR 600A & 620A	
	106-0060	VACUUM VALVE FOR 650A & 700A	

*: OPTION



MACHINE 420A, 600A, 620A & 650A		SIPROMAC	
PART PNEUMATIC		ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
ITEM	CNC	N.T.S.	SCALE _____ QT. 1
MAT	DWG BY M.LAVIGNE	DATE 97-03-11	NO. 007-0019
INT.	APP.	DATE	
LET.	RE-DRAWN	MODIFICATION	

NOTES



VACUUM PACKAGING MACHINES

