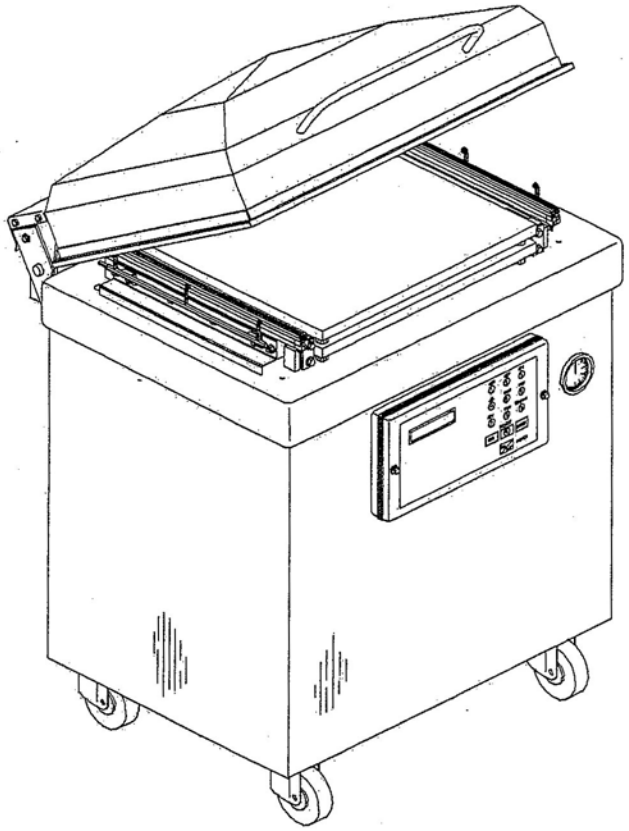
VACUUM PACKAGING MACHINE

MODEL 450A



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

BK46713

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 450A

(MC-40)

GENERAL TABLE OF CONTENTS

VACUUM PACKAGING MACHINES

OPERATION INSTRUCTIONS

TABLE OF CONTENTS

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 recommanded 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 completly 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.

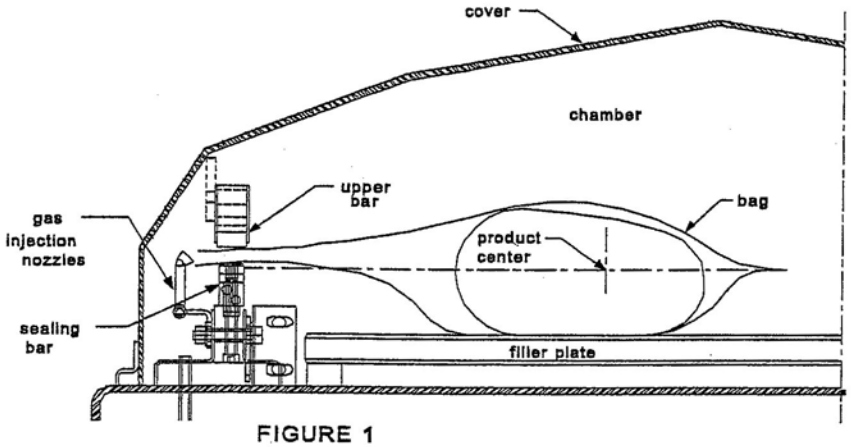


FIGURE 1

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 package 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 (cannot be used with top and bottom sealing).

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 untill 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 vaccum must be kept inside to assure proper functionning.

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 sequencally 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.7

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:

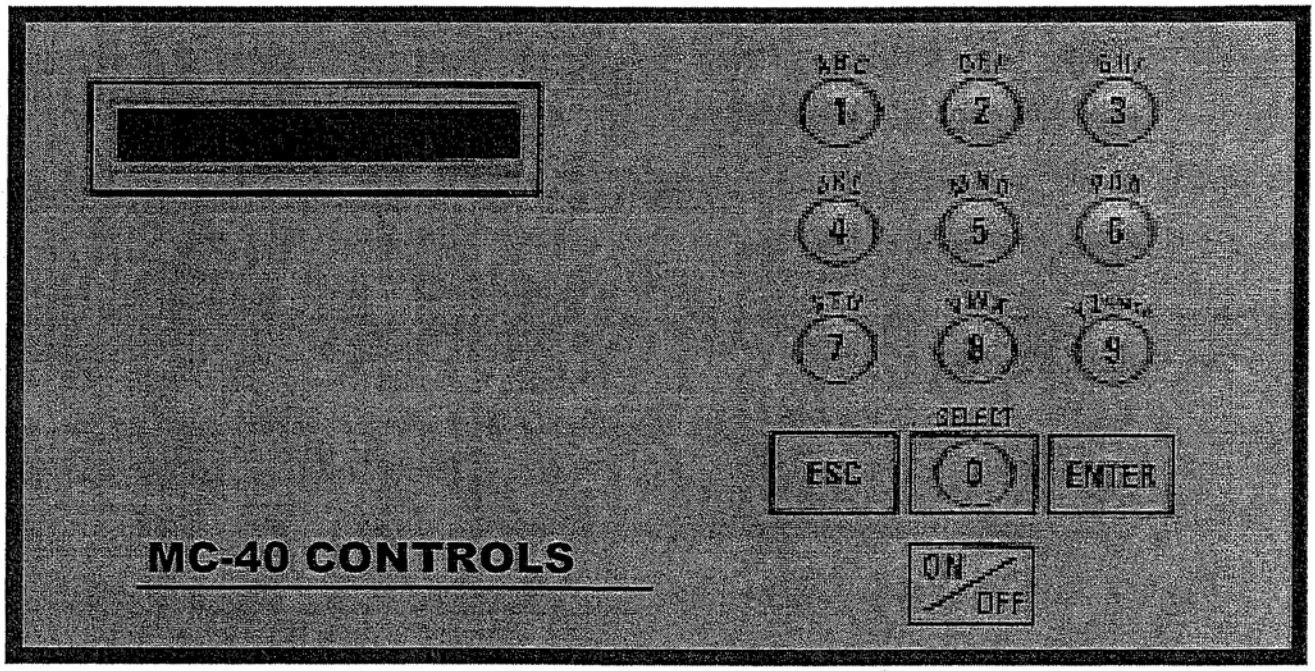
"VACUUM: xx.xs"	(10 – 199s)
"GAS FLUSH: xx.xs"	(0 – 99s) (units with gas option)
"SEAL TIME: x.xxs"	(0.00s - maximum unit allocated setting)
"Pxx NAME"	(12 characters)

- **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: xxxxxxx"

-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 hygenic 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 vacuumeter, 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 servic 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.

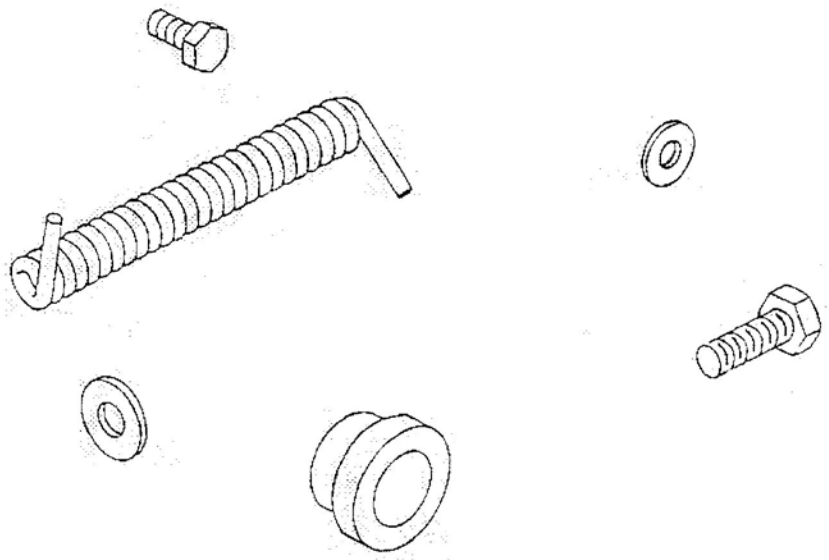
Check evacuation hose for damage (contraction of diameter, or abrasions).

Check vacuum connections for tightness.

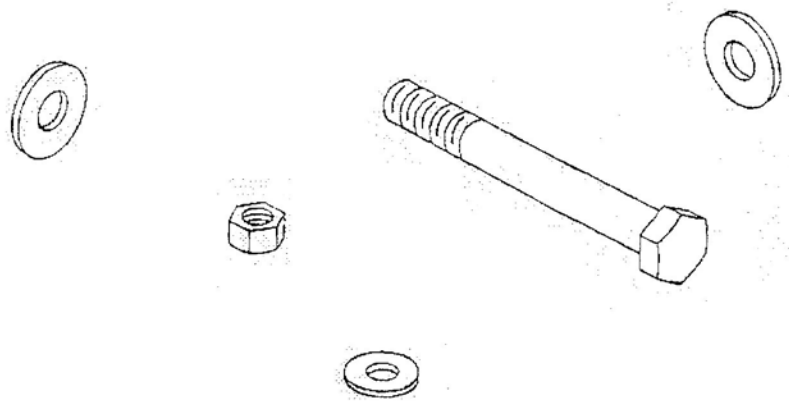
Check oil in pump (oil level in view glass; add if necessary. Regular change of oil - necessity indicated by change of color).

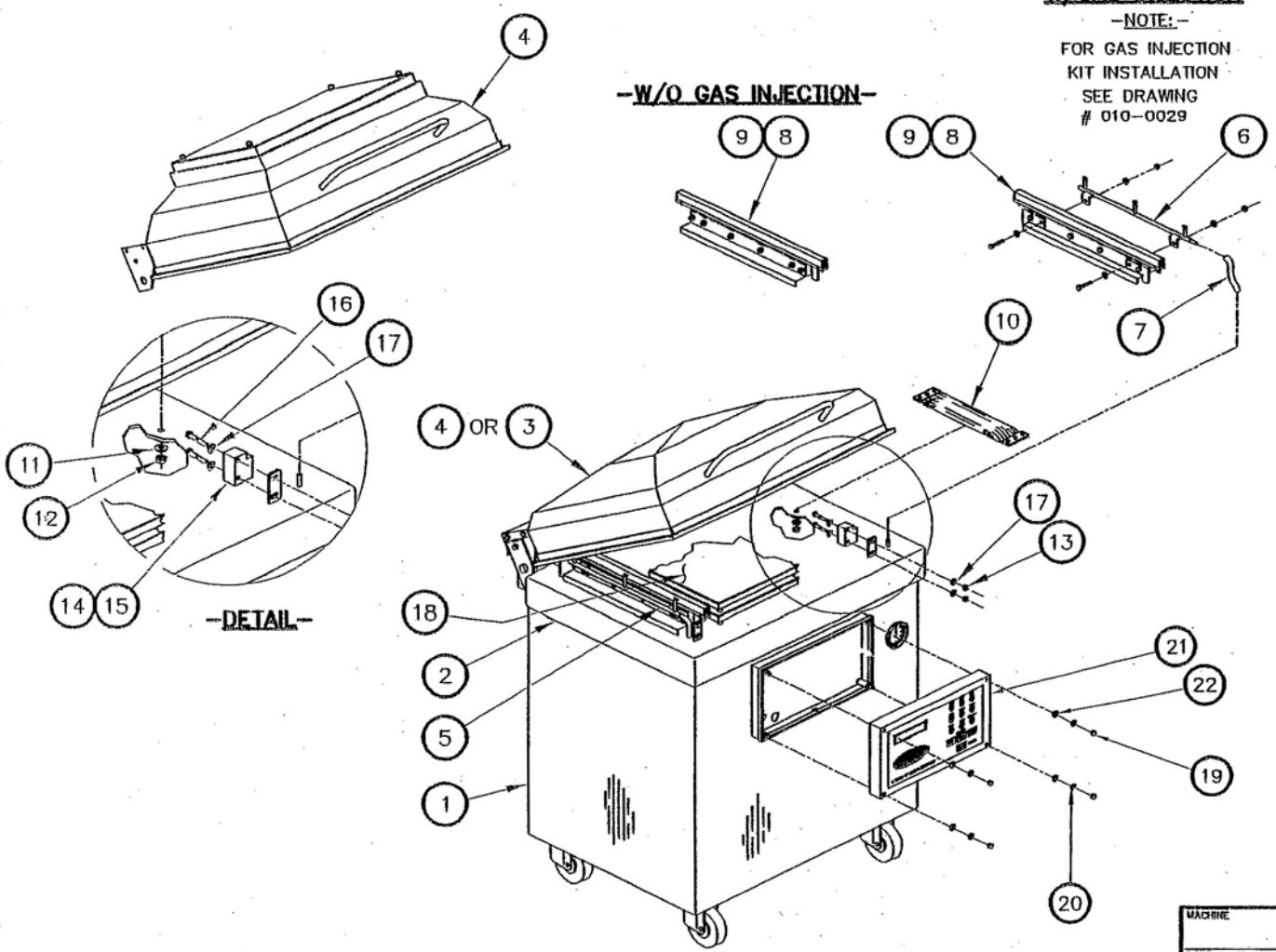
Check vacuum in chamber with precision vacuumeter.

Check function of cycle with various settings of timers.



MECHANICAL DRAWING





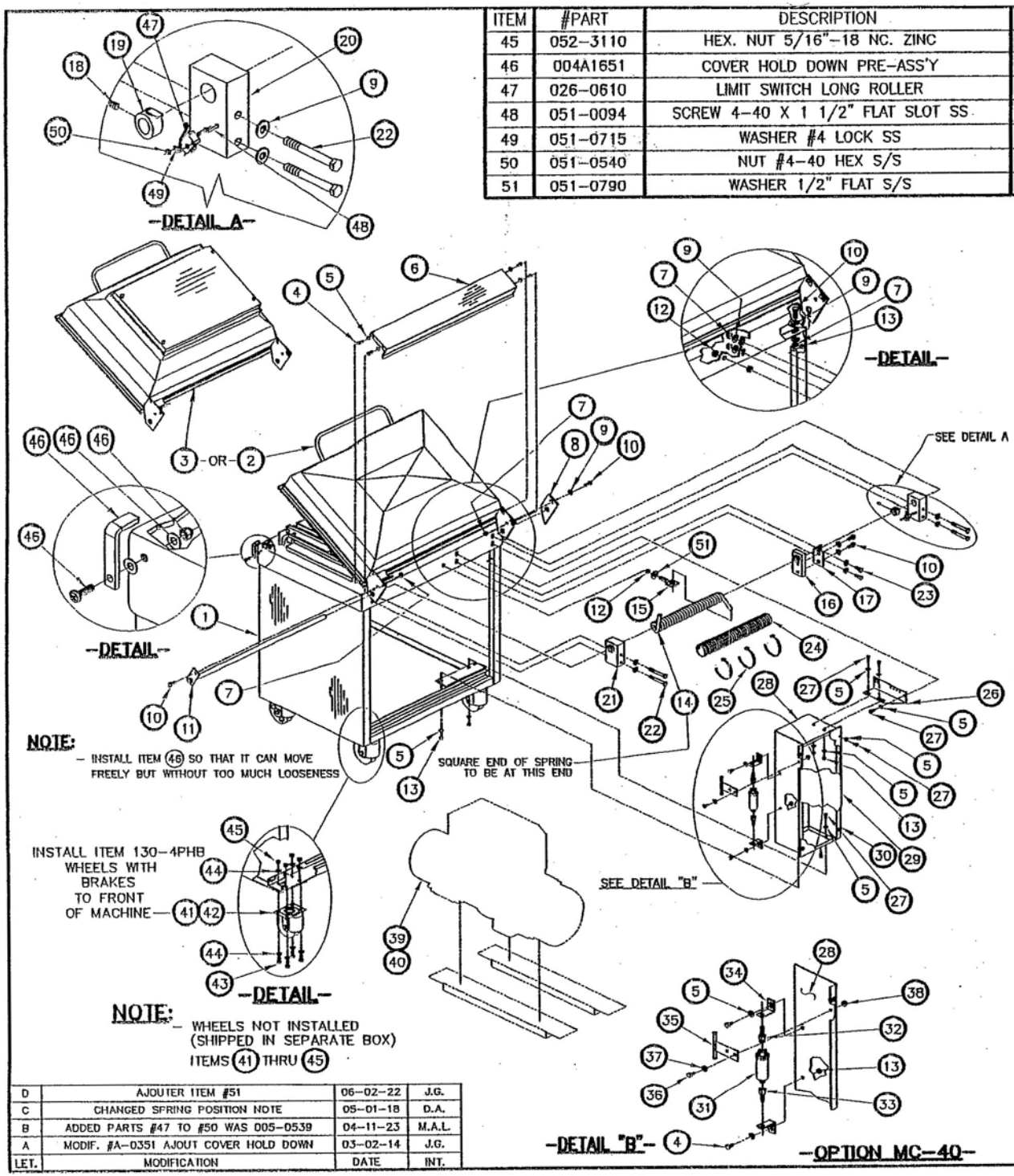
ITEM	PART #	DESCRIPTION	QT.
1	005B0602	MC-40 STRUCTURE ASSEMBLY	1
2	005-0531	TABLE ASSEMBLY	1
3	005-0540	COVER ASSEMBLY	1
4	005-0530	9 1/2" PLEXI COVER ASS'Y (OPT.)	1
5	005A0533	LEFT GAS INJECTION BAR ASS'Y (OPT.)	1
6	005A0808	RIGHT GAS INJECTION BAR ASS'Y (OPT.)	1
7	008-0464	GAS INJECTION CONNECTION TUBE (OPT.)	2
8	005-0564	SEAL BAR ASSEMBLY W/ SUPPORT	2
9	005-0565	SEAL BAR ASS'Y W/ SUPPORT (BAG CUT OPT.)	2
10	005-0532	BELLOWS ASSEMBLY	2
11	051-0780	FLAT WASHER 3/8" S/S	2
12	051-0620	HEX. NUT 3/8"-16 NC. S/S	2
13	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	8
14	002-0326	LEFT/SEAL BAR GUIDE BLOCK	2
15	002-0327	RIGHT/SEAL BAR GUIDE BLOCK	2
16	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	8
17	051-0740	FLAT WASHER 1/4" S/S	16
18	005-0534	FILLER PLATE ASSEMBLY	2
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

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

MACHINE: 450A	METRIC TOLERANCE: 0. ± .5, .0 ± .05, .00 ± .005, .000 ± .0005, ANGLE ± 1°	INCH TOLERANCE: .0 ± .015", .00 ± .005", .000 ± .0005"	SIPROMAC, ST-GERMAIN DE GRANTHAM, QUEBEC CANADA
PART: 450A MC-40 FRONT VIEW	N.T.S.		
ITEM:	CNC:	DEPT: M-I	QT: 1
MAT:	DWG BY: M.A.LEBLANC DATE: 05-09-01	APP. DATE: 06-04-12	NO. 005A0601

005A0601

005-0607

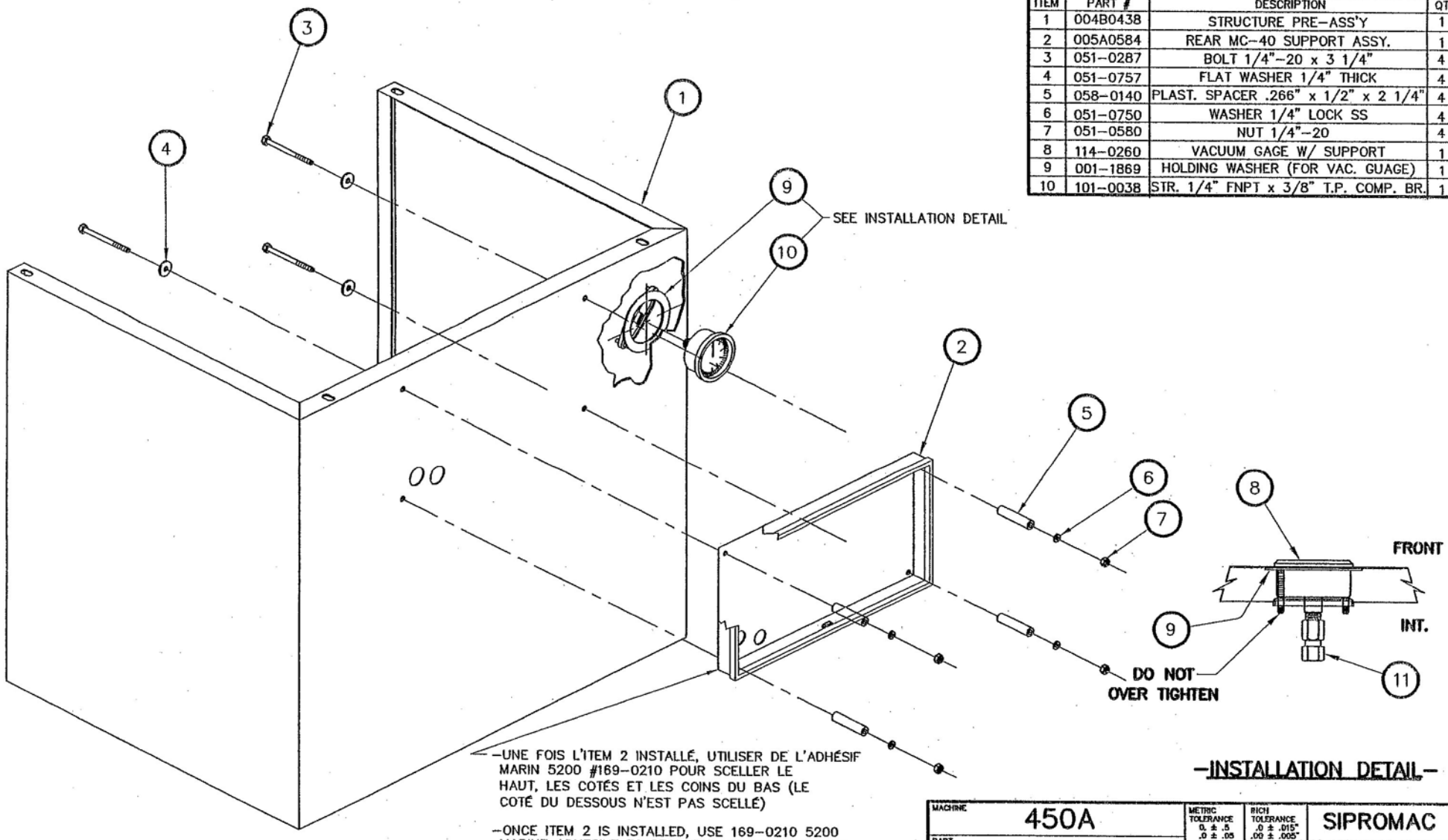


ITEM	#PART	DESCRIPTION	QT.
45	052-3110	HEX. NUT 5/16"-18 NC. ZINC	16
46	004A1651	COVER HOLD DOWN PRE-ASS'Y	1
47	026-0610	LIMIT SWITCH LONG ROLLER	1
48	051-0094	SCREW 4-40 X 1 1/2" FLAT SLOT SS	2
49	051-0715	WASHER #4 LOCK SS	2
50	051-0540	NUT #4-40 HEX S/S	2
51	051-0790	WASHER 1/2" FLAT S/S	1

ITEM	#PART	DESCRIPTION	QT.
1	005-0601	450A MC-40 FRONT VIEW	1
2	005-0540	COVER ASSEMBLY	1
3	005-0530	9 1/2" COVER ASSEMBLY (OPTION)	1
4	051-0185	SCREW 1/4"-20 NC. X 1/2" PAN PHILL. S/S	4
5	051-0740	FLAT WASHER 1/4" S/S	19
6	004-0172	SPRING COVER PRE-ASSEMBLY	1
7	051-0620	HEX. NUT 3/8"-16 NC. S/S	12
8	001-1335	CHAMBER STOPPER	1
9	051-0783	FLAT WASHER 3/8" (THICK) S/S	25
10	051-0360	HEX. BOLT 3/8"-16 NC. X 1" S/S	8
11	004-0129	COVER AXIS PRE-ASSEMBLY	1
12	051-0630	HEX. NUT 1/2"-13 NC. S/S	2
13	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK	7
14	008-0460	COVER SPRING	1
15	005-0346	SPRING TENSION SUPPORT PRE-ASS'Y	1
16	004-0276	CENTRAL COVER AXIS SUPPORT	1
17	001-1540	CENTRAL COVER AXIS SUPPORT FIXATION	1
18	051-0178	SET SCREW 1/4"-20 NC. X 5/16" S/S	1
19	005-0348	MICRO-SWITCH COLLAR ASS'Y	1
20	004-0274	LEFT COVER AXIS SUPPORT	1
21	004-0275	RIGHT COVER AXIS SUPPORT	1
22	051-0424	HEX. BOLT 3/8"-16 NC. 3 1/2" S/S	4
23	051-0360	HEX. BOLT 3/8"-16 NC. 1 1/4" S/S	2
24	038-0350	SLIT COORUG LOOM 2" ID X 370 MM	1
25	057-0330	CABLE TIES 14" LONG BLACK	3
26	001-1364	UPPER E-BOX SUPPORT (RIGHT)	1
27	051-0180	HEX. BOLT 1/4"-20 NC. X 1/2" S/S	11
28	005-0347	ELECTRICAL BOX PRE-ASSEMBLY	1
29	004-0273	ELECTRICAL BOX COVER PRE-ASSEMBLY	1
30	056-0020	SPRING NUT 1/4"-20 NC. STEEL	4
31	114-2020	DRYER FILTER	1
32	101-0200	STRAIGHT 1/4" MNPT X 1/4" HOSE	1
33	101-0210	STRAIGHT 1/4" FNPT X 1/4" HOSE	1
34	001-2062	DRYER SUPPORT	2
35	005-0323	GAS INLET ASSEMBLY (OPTION)	1
36	051-0180	HEX BOLT 1/4"-20NC X 1/2" S/S (OPTION)	1
37	051-0740	FLAT WASHER 1/4" S/S (OPTION)	1
38	051-0581	HEX NUT 1/4"-20NC NYLON LOCK S/S (OPTION)	1
39	004-0287	"BUSH" PUMPS INSTALLATION	1
40	004-0288	"LEYBOLD" PUMPS INSTALLATION	1
41	130-4PHB	4" PL. CASTER SWIVEL W/ BRAKE	2
42	130-4PHO	4" PL. CASTER SWIVEL W/O BRAKE	2
43	052-0520	BOLT 5/16"-18 NC. X 3/4" ZINC	16
44	051-0760	FLAT WASHER 5/16"-18 NC. ZINC	32

LET.	MODIFICATION	DATE	INT.
D	AJOUTER ITEM #51	06-02-22	J.G.
C	CHANGED SPRING POSITION NOTE	05-01-18	D.A.
B	ADDED PARTS #47 TO #50 WAS 005-0539	04-11-23	M.A.L.
A	MODIF. #A-0351 AJOUT COVER HOLD DOWN	03-02-14	J.G.

MACHINE: 450A
PART: MC-40 REAR VIEW
ITEM:
MAT:
CNC:
TOLERANCE: METRIC / INCH
USINAGE: ± 0.1 / ± 0.004"
TOLERIE: ± 0.5 / ± 0.020"
SOUDAGE: ± 0.5 / ± 0.020"
N.T.S.
SIPROMAC
ST-GERMAIN DE GRANTHAM QUEBEC CANADA
M-1
QT. 1
DWG BY: L.M.
APP.
DATE 98-05-28
DATE 06-04-23
NO. 005-0607



ITEM	PART #	DESCRIPTION	QT.
1	004B0438	STRUCTURE PRE-ASS'Y	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
8	114-0260	VACUUM GAGE W/ SUPPORT	1
9	001-1869	HOLDING WASHER (FOR VAC. GUAGE)	1
10	101-0038	STR. 1/4" FNPT x 3/8" T.P. COMP. BR.	1

-UNE FOIS L'ITEM 2 INSTALLÉ, UTILISER DE L'ADHÉSIF MARIN 5200 #169-0210 POUR SCELLER LE HAUT, LES COTÉS ET LES COINS DU BAS (LE COTÉ 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).

-INSTALLATION DETAIL-

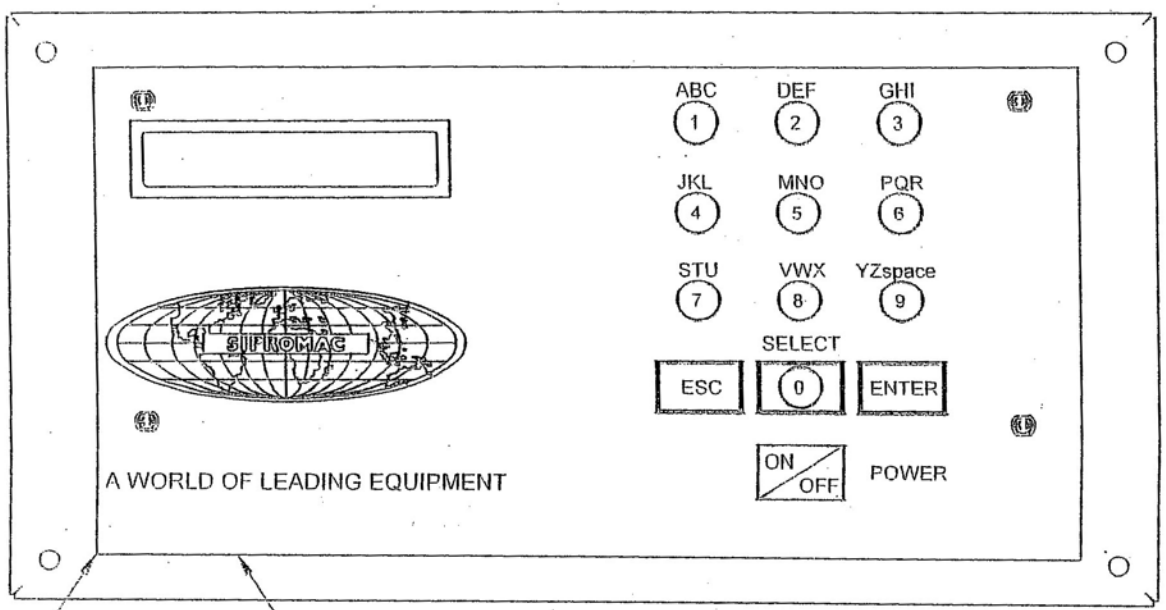
LET.	MODIFICATION	DATE	INT.
B	REDRAWN	05-09-02	M.A.L.

MACHINE: 450A
PART: MC-40 STRUCTURE ASS'Y
ITEM:
MAT:
METRIC TOLERANCE: 0 ± .5, .0 ± .05, .00 ± .005, .000 ± .0005, ANGLE ± 1°
INCH TOLERANCE: .0 ± .015", .00 ± .005", .000 ± .0005"
N.T.S.
CNC:
DWG BY: M.A.LEBLANC
APP.
DATE: 05-09-02
DATE: 05-11-04
SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA
DEPT: M
QT.: 1
NO.: 005B0602

005B0602

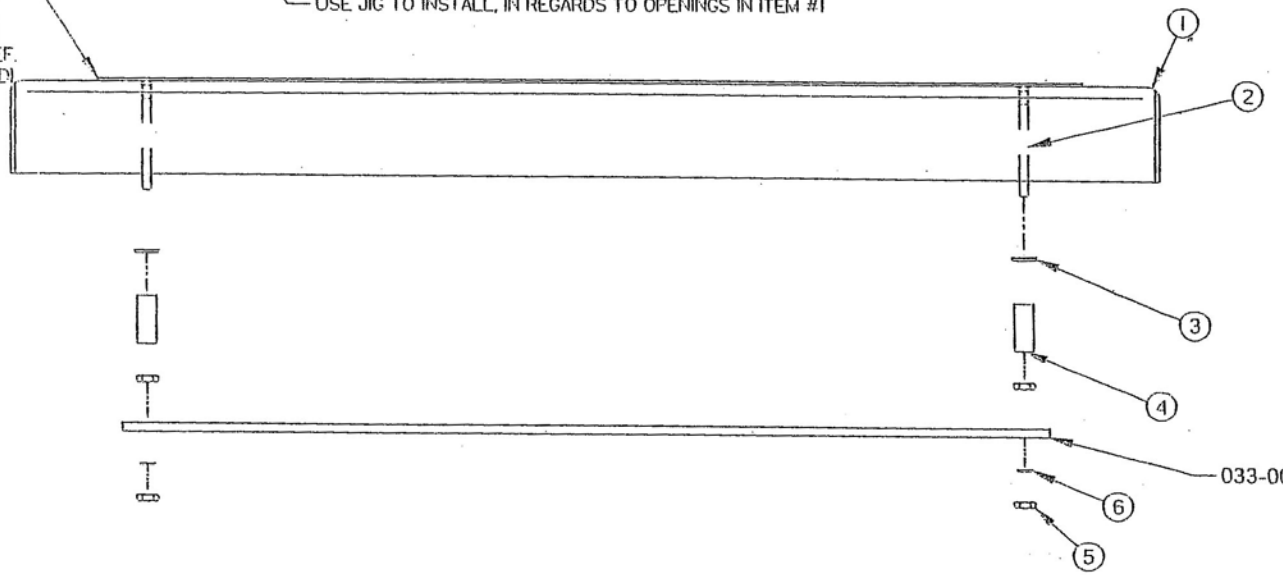
005A0583

ITEM	PART #	DESCRIPTION	QT.
1	004A0425	FRONT MC-40 SUPPORT PRE-ASS'Y	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	8
6	051-0715	WASHER #4 LOCK SS	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



G	REDRAWN	05-09-01	M.A.
ET.	MODIFICATION	DATE	INT.

MACHINE: 420A, 450A, 450T, 600A, 550A, 600A, 580A, 620A & 650A

PART: FRONT MC-40 SUPPORT ASS'Y

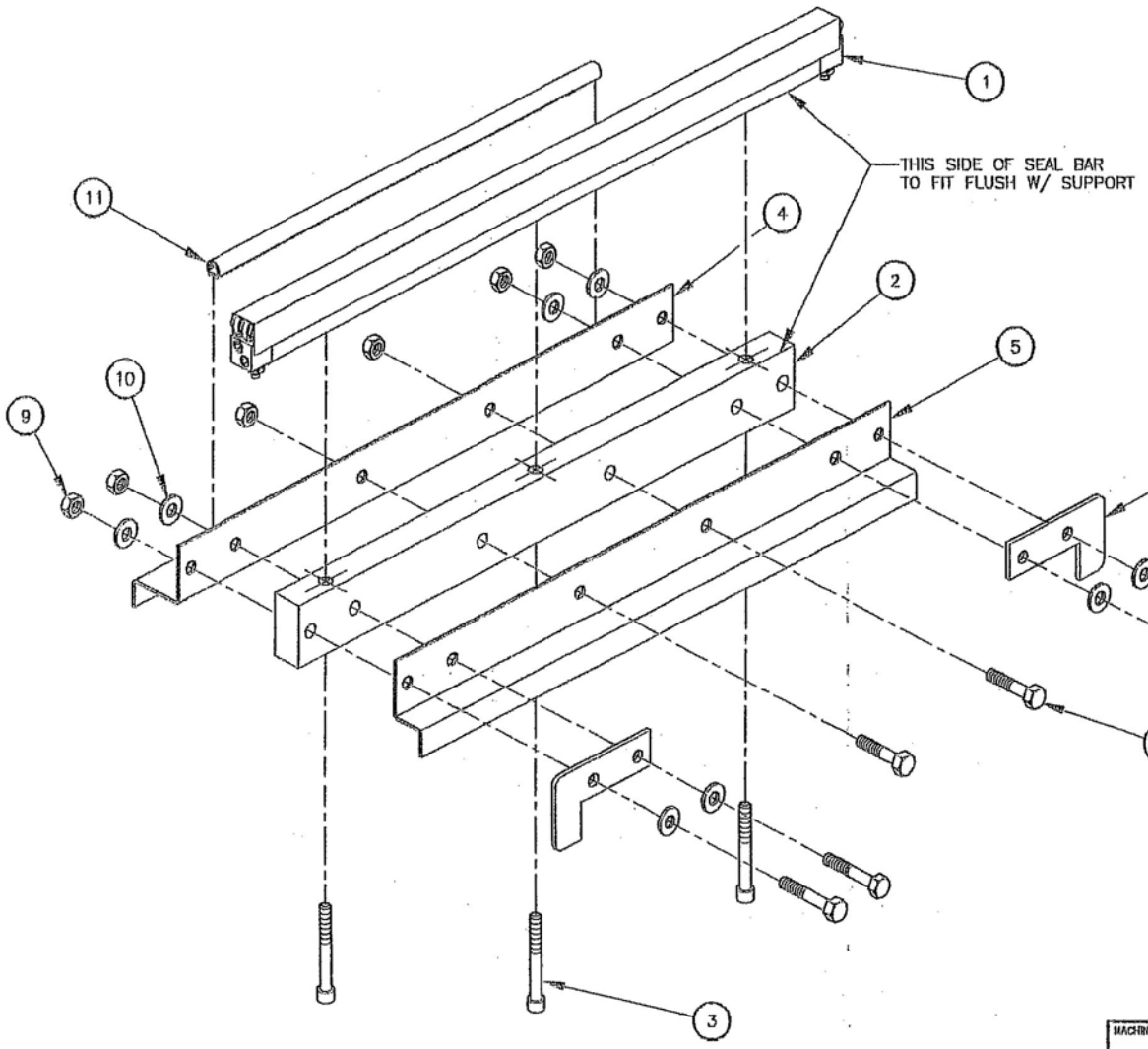
DEPT. TOL.	METRIC	INCH
USINAGE	± 0.1	± 0.004"
TOLERIE	± 0.5	± 0.020"
SOUDAGE	± 0.5	± 0.020"

N.T.S.

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

ITEM | CHC | DEPT. M | QTY. 1

MAT. | DWG BY M.A.L. | DATE 05-09-01 | APP. BY | DATE | NO. 005A0583



ITEM	PART #	DESCRIPTION	QT.
1	004-0352	SEAL BAR PRE-ASSEMBLY	2
2	002-0512	SEAL BAR SUPPORT (TABLE)	2
3	051-0256	CAP HEX. SKT. BOLT 1/4"-20 NC X 1 3/4" S/S	6
4	001-1960	EXTERIOR BELLOWS COVER	2
5	001-1856	INTERIOR BELLOWS COVER	2
6	001-1858	SEAL BAR GUIDE	4
7	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	8
8	051-0230	HEX. BOLT 1/4"-20 NC. X 1 1/4" S/S	4
9	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	12
10	051-0740	FLAT WASHER 1/4" S/S	16
11	038-0230	WIRING DUCT W/ ADHESIVE BACKING (0.35" X 0.5" X 300) PVC	2

LET.	MODIFICATION	DATE	INT.
B	ADDED 400	99-05-06	S.L.
A	REDRAWN/ WAS 004-0353/ MODIF. NO. A-0226	97-10-20	A.P.

MACHINE: 400 & 450A

PART: SEAL BAR ASSEMBLY W/ SUPPORT

METRIC TOLERANCE: 0. ± .5 / .0 ± .05 / .00 ± .005 / .000 ± .0005 / ANGLE ± 1°

INCH TOLERANCE: .0 ± .015" / .00 ± .005" / .000 ± .0005" / N.T.S.

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

ITEM: | CNC: | SCALE | QT. 2

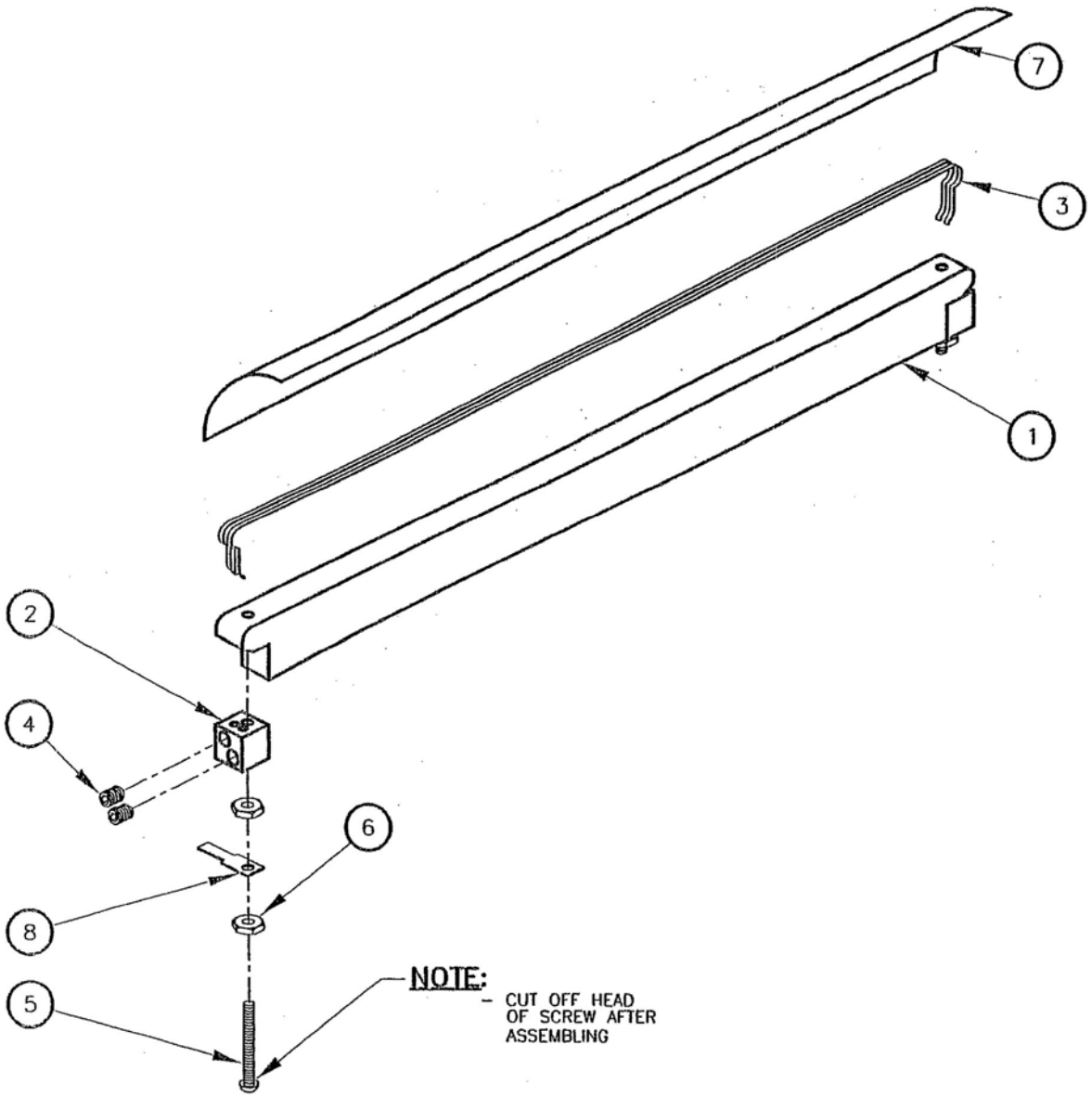
MAT: | DWG BY A. PROVENCHER | DATE 97-10-20 | NO. 005-0564

APP. | DATE

005-0564

004-0352

ITEM	#PART	DESCRIPTION	QT.
1	002-0481	SEAL BAR (TABLE)	1
2	002-0031	CONNECTOR	2
3	039-0200	SEALING ELEM. STD TWIN (2x626mm EA.)	4.31
4	052-0395	SCREW 1/4"-20 NC. X 5/16" SET HEX SKT OVAL PT	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 X 2" X (496mm EA.)	0.063
8	027-0400	CONNECTOR ADAPTOR 1/4" X #10 STUD	2



NOTE:
- CUT OFF HEAD OF SCREW AFTER ASSEMBLING

LET.	MODIFICATION	DATE	INT.
D	MODIFICATION #A-0398 (CONNECTEUR)	04-04-19	J.G.
C	ADDED 400	99-05-06	S.L.
B	REDRAWN	98-02-10	A.P.

MACHINE: 400 & 450A
PART: SEAL BAR PRE-ASSEMBLY
ITEM:
MAT:
CHG:
DWG BY: A. P. DATE: 98-02-10
APP. DATE:

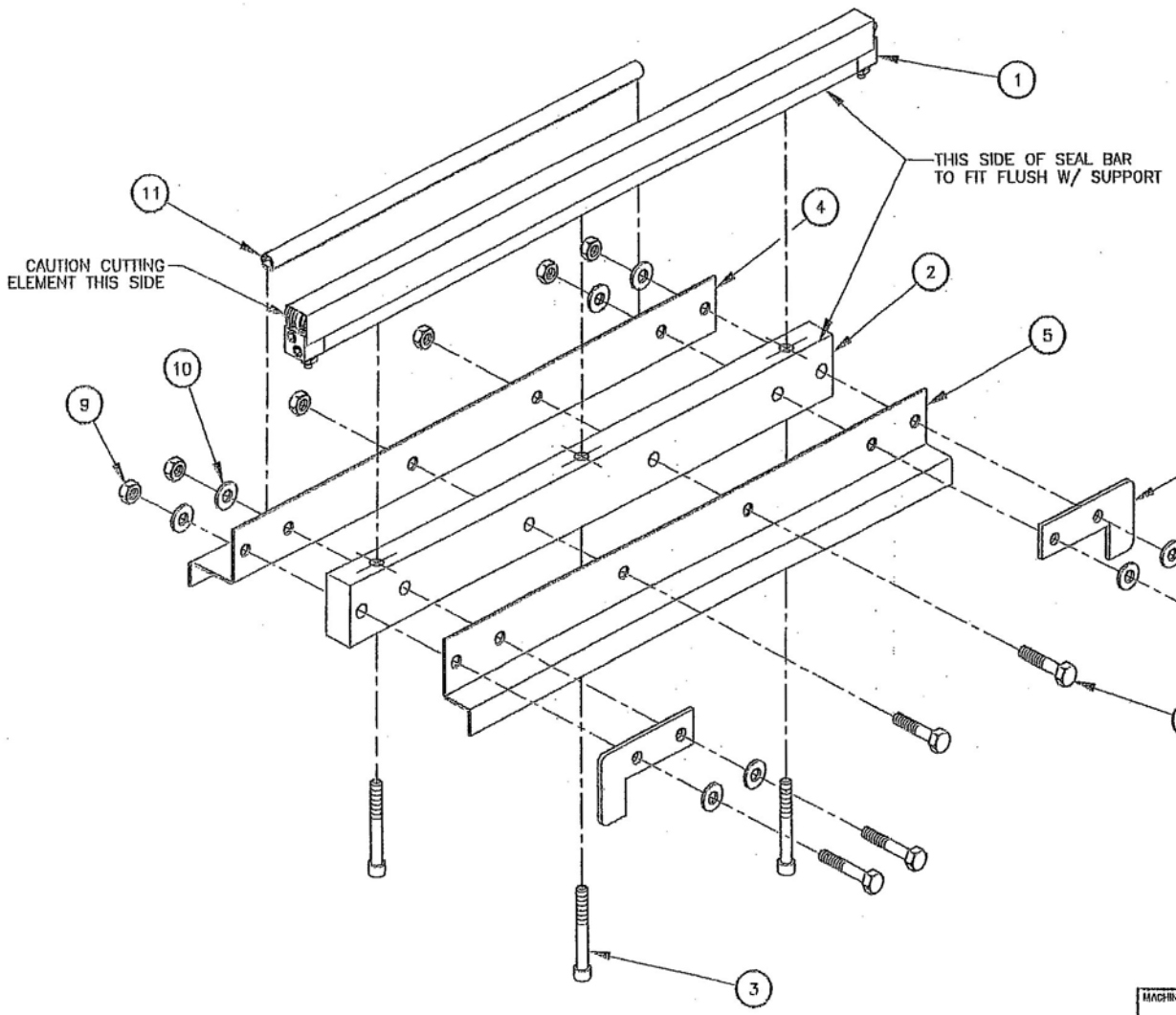
TOLERANCE	METRIC	INCH
USINAGE	± 0.1	± 0.004"
TOLERIE	± 0.5	± 0.020"
SOUDAGE	± 0.5	± 0.020"

N.T.S.

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

M | QT. 2

NO. 004-0352



ITEM	PART #	DESCRIPTION	QT.
1	004-0355	BAG CUT SEAL BAR PRE-ASSEMBLY	2
2	002-0512	SEAL BAR SUPPORT (TABLE)	2
3	051-0256	CAP HEX. SKT. BOLT 1/4"-20 NC X 1 3/4" S/S	6
4	001-1960	EXTERIOR BELLOWS COVER	2
5	001-1856	INTERIOR BELLOWS COVER	2
6	001-1858	SEAL BAR GUIDE	4
7	051-0250	HEX. BOLT 1/4"-20 NC. X 1 1/2" S/S	8
8	051-0230	HEX. BOLT 1/4"-20 NC. X 1 1/4" S/S	4
9	051-0581	HEX. NUT 1/4"-20 NC. NYLON LOCK S/S	12
10	051-0740	FLAT WASHER 1/4" S/S	16
11	038-0230	WIRING DUCT W/ ADHESIVE BACKING (0.35" X 0.5" X 300) PVC	2

-BAG CUT OPTION-

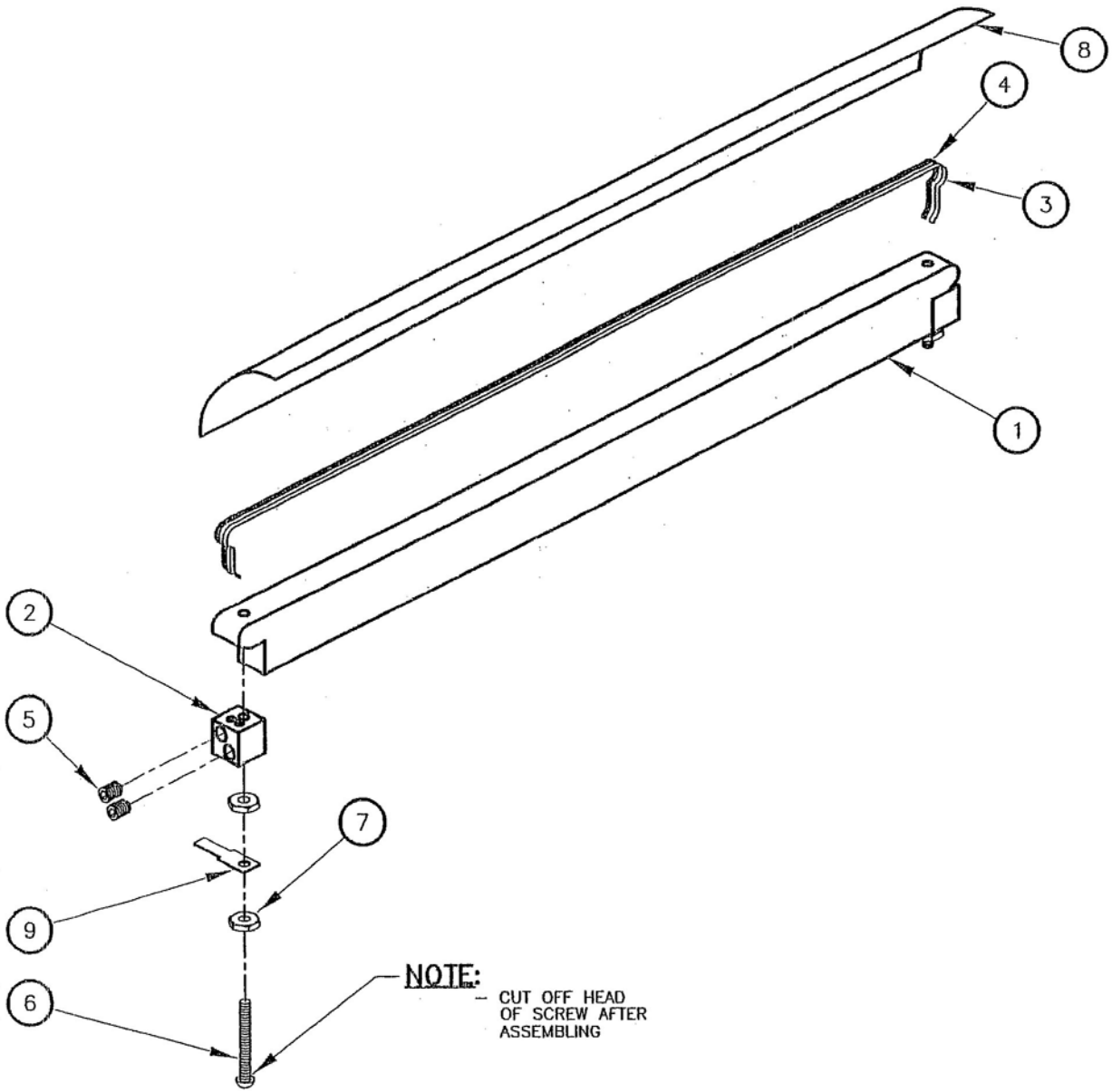
LET.	MODIFICATION	DATE	INT.
A	ADDED 400	99-05-06	S.L.

MACHINE: 400 & 450A
PART: SEAL BAR ASSEMBLY W/ SUPPORT
METRIC TOLERANCE: 0. ± .5, .0 ± .05, .00 ± .005, .000 ± .0005, ANGLE ± 1°
INCH TOLERANCE: .0 ± .015", .00 ± .005", .000 ± .0005"
N.T.S.
SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA
ITEM:
CNC:
SCALE
SH. 2
MAT'L
DWG BY A. PROVENCHER
DATE 97-10-20
APP.
DATE
NO. 005-0565

005-0565

004-0355

ITEM	#PART	DESCRIPTION	QT.
1	002-0481	SEAL BAR	1
2	002-0031	CONNECTOR	2
3	039-0230	REFLEX BAND 2.5MM (626mm EA.)	0.063
4	039-0270	"T" PROFILE CUT. ELEM. (626mm EA.)	0.063
5	052-0395	SCREW 1/4"-20 NC. X 5/16" SET HEX SKT OVAL PT	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 X 2" X (496mm EA.)	0.063
9	027-0400	CONNECTOR ADAPTOR 1/4" X #10 STUD	2



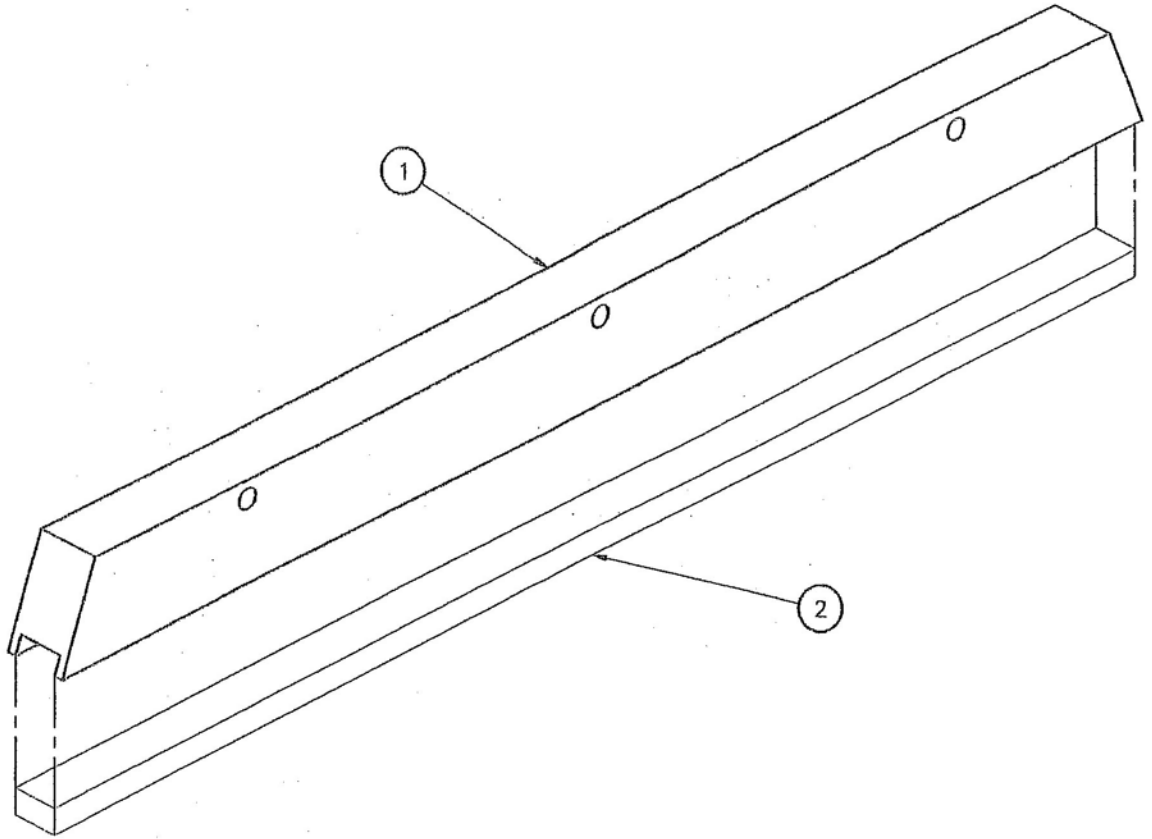
NOTE:
- CUT OFF HEAD OF SCREW AFTER ASSEMBLING

-BAG CUT OPTION-

REV	MODIFICATION	DATE	INIT.
D	MODIFICATION #A-0398 (CONNECTEUR)	04-04-19	J.G.
C	ADDED 400	99-05-06	S.L.
B	REDRAWN	98-02-10	A.P.
A	MODIFICATION	DATE	INIT.

MACHINE: 400 & 450A	TOLERANCE METRIC / INCH: USINAGE ± 0.1 / ± 0.004"; TOLERIE ± 0.5 / ± 0.020"; SOUDAGE ± 0.5 / ± 0.020"	SIPROMAC	
PART: SEAL BAR PRE-ASSEMBLY	N.T.S.	ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
ITEM:	CNC:	M	QT. 2
MAT:	DWG BY A.P. DATE 98-02-10		NO. 004-0355
	APP. DATE		

ITEM	PART #	DESCRIPTION	QT.
1	002A0480	UPPER SEAL BAR SUPPORT	1
2	008-0450	UPPER SEAL BAR RUBBER	1



C LET.	REDRAWN MODIFICATION	99-08-02 DATE	S.L. INT.

MACHINE: 400 & 450A
PART: UPPER SEAL BAR PRE-ASS'Y
ITEM:
MAT:

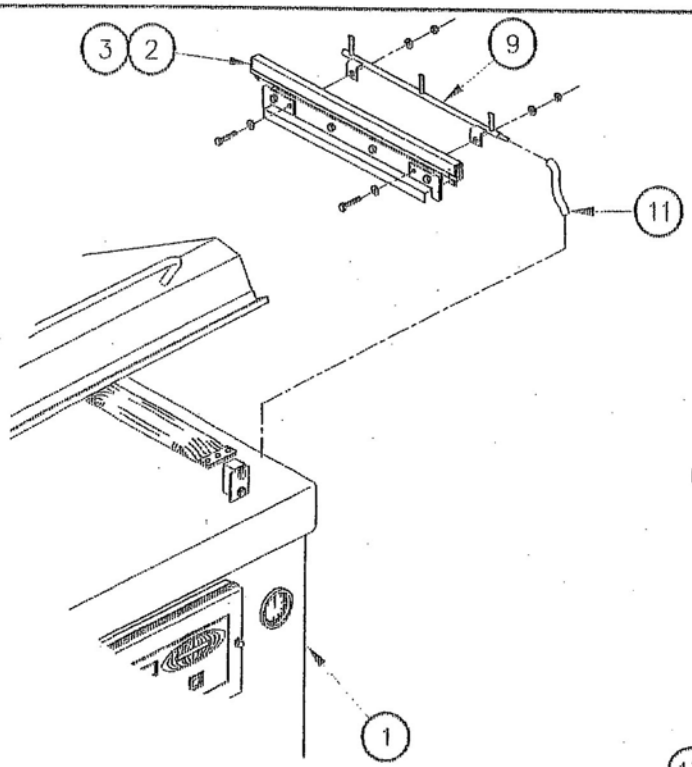
METRIC TOLERANCE: 0. ± .5 / .0 ± .05 / .00 ± .005 / .000 ± .0005 / ANGLE ± 1°
INCH TOLERANCE: .0 ± .015" / .00 ± .005" / .000 ± .0005"
N.T.S.

CNC: - - - - - -
DWG BY: S. LAROUCHE DATE: 99-08-02
APP. DATE

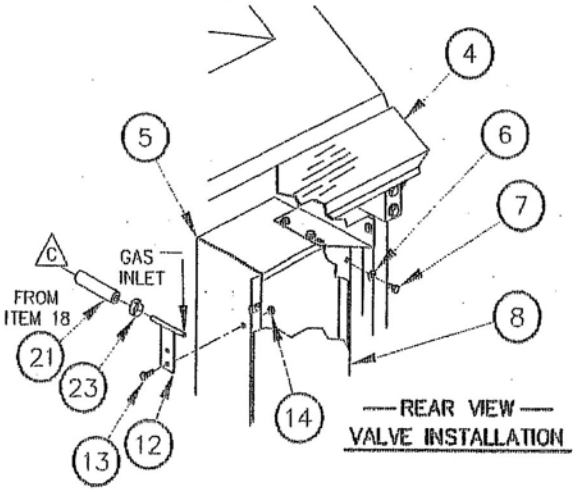
SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

SCALE: ____ QT. 2
NO. 004A0351

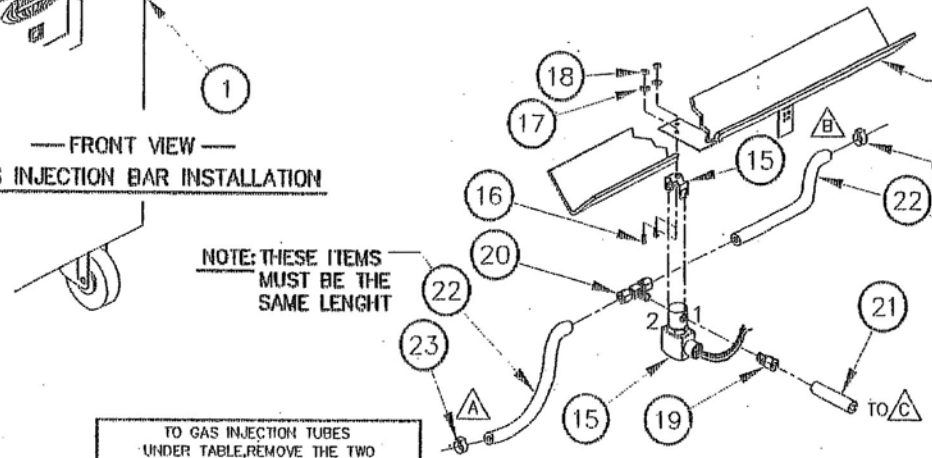
004A0351



— FRONT VIEW —
GAS INJECTION BAR INSTALLATION



— REAR VIEW —
VALVE INSTALLATION



NOTE: THESE ITEMS MUST BE THE SAME LENGHT

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

— UNDER TABLE VIEW —
VALVE INSTALLATION

ITEM	PART #	DESCRIPTION	QT.
1	005-0410	MACHINE ASSEMBLY FRONT VIEW	1
2	005-0564	SEAL BAR ASS'Y W/ SUPPORT	2
3	005-0565	SEAL BAR ASS'Y W/ SUPPORT (BAG CUT OPT.)	2
4	005-0411	MACHINE ASSEMBLY REAR VIEW	1
5	005-0347	ELECTRICAL BOX ASSEMBLY	1
6	051-0740	FLAT WASHER 1/4" S.S.	4
7	051-0180	HEX.BOLT 1/4"-20 x 1/2" S.S.	4
8	004-0273	E-BOX COVER PRE-ASSY.	1
9	005A0808	RIGHT GAS INJECTION BAR ASSY.(OPT.	1
10	005A0533	LEFT GAS INJECTION BAR ASSY.(OPT.)	1
11	008-0464	GAS INJECTION CONNECTION TUBE	2
12	005-0323	GAS INLET ASSEMBLY	1
13	051-0180	HEX. BOLT 1/4"-20 x 3/4" S.S.	1
14	051-0580	HEX. NUT 1/4"-20 S.S.	1
15	106-0010	SELENOID VALVE 2 WAY 1/4"NPT W/ SUPP.	1
16	051-0100	RND.H.SCREW #8-32 x 3/8" S.S.	2
17	051-0720	FLAT WASHER #8 S.S.	2
18	051-0550	HEX.NUT #8-32 S.S.	2
19	101-0036	STRAIGHT 1/4"MNPT x 3/8"T.P.COMP.	1
20	101-0065	T 3/8"T.P.COMP.x1/4"MNPTx3/8"T.P.COMP.	1
21	104-0060	TUBE 3/8"ODx1/4"ID(POLY.) x mm LG.	1
22	104-0060	TUBE 3/8"ODx1/4"ID(POLY.) x mm LG.	2
23	105-0200	COLLARS 3/8"ø	3

NOTE: -PARTS (1) THRU (8) ARE EXISTING PARTS
-PARTS (9) THRU (23) ARE PARTS SUPPLIED W/ KIT

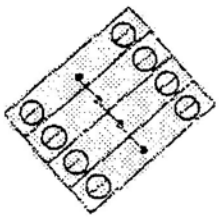
-OPTION GAS INJECTION-

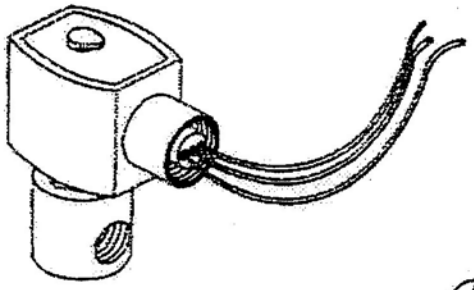
LET.	MODIFICATION	DATE	INT.
C	MODIFICATION #A-0358	03-02-21	J.G.
B	REDRAWN/ MODIF. NO. A-0226	97-10-21	A.P.

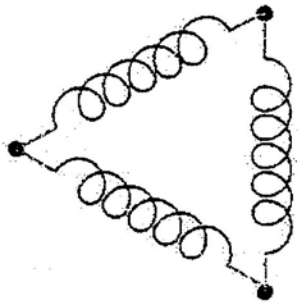
MACHINE: 450A	METRIC TOLERANCE 0. ± .5, .0 ± .05, .00 ± .005, .000 ± .0005, ANGLE ± 1°	INCH TOLERANCE .0 ± .015", .00 ± .005", .000 ± .0005"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA
PART: GAS INJECTION KIT INSTALLATION	N.T.S.		
ITEM:	CNC:		11-P-1 SH. 1
MAT:	DWG BY A. PROVENCHER	DATE 97-10-21	NO. 010-0029
	APP. LTJ	DATE	

010-0029

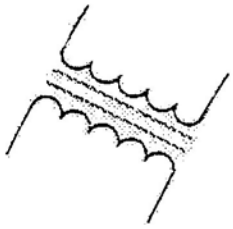
NOTES

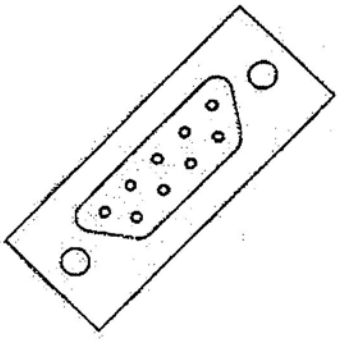


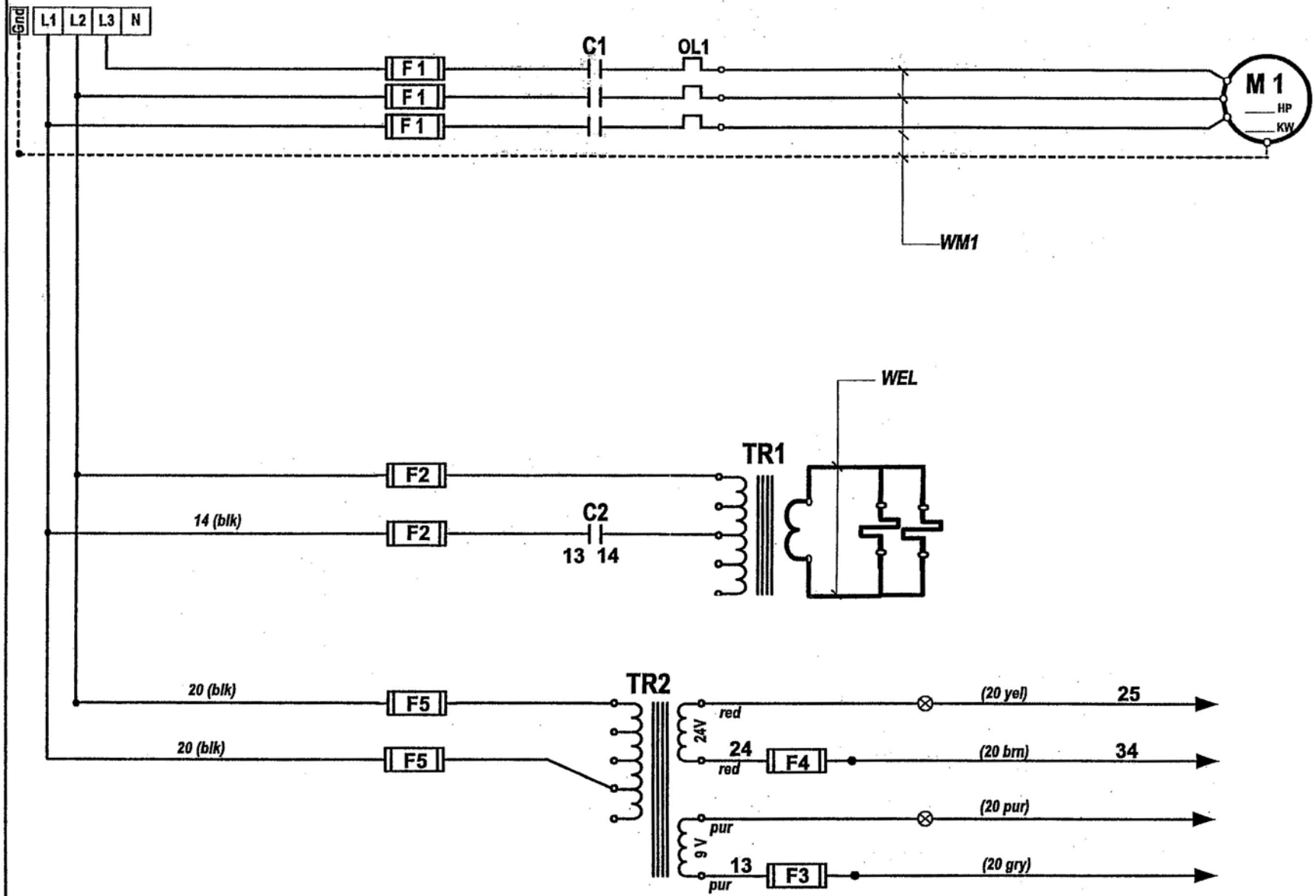




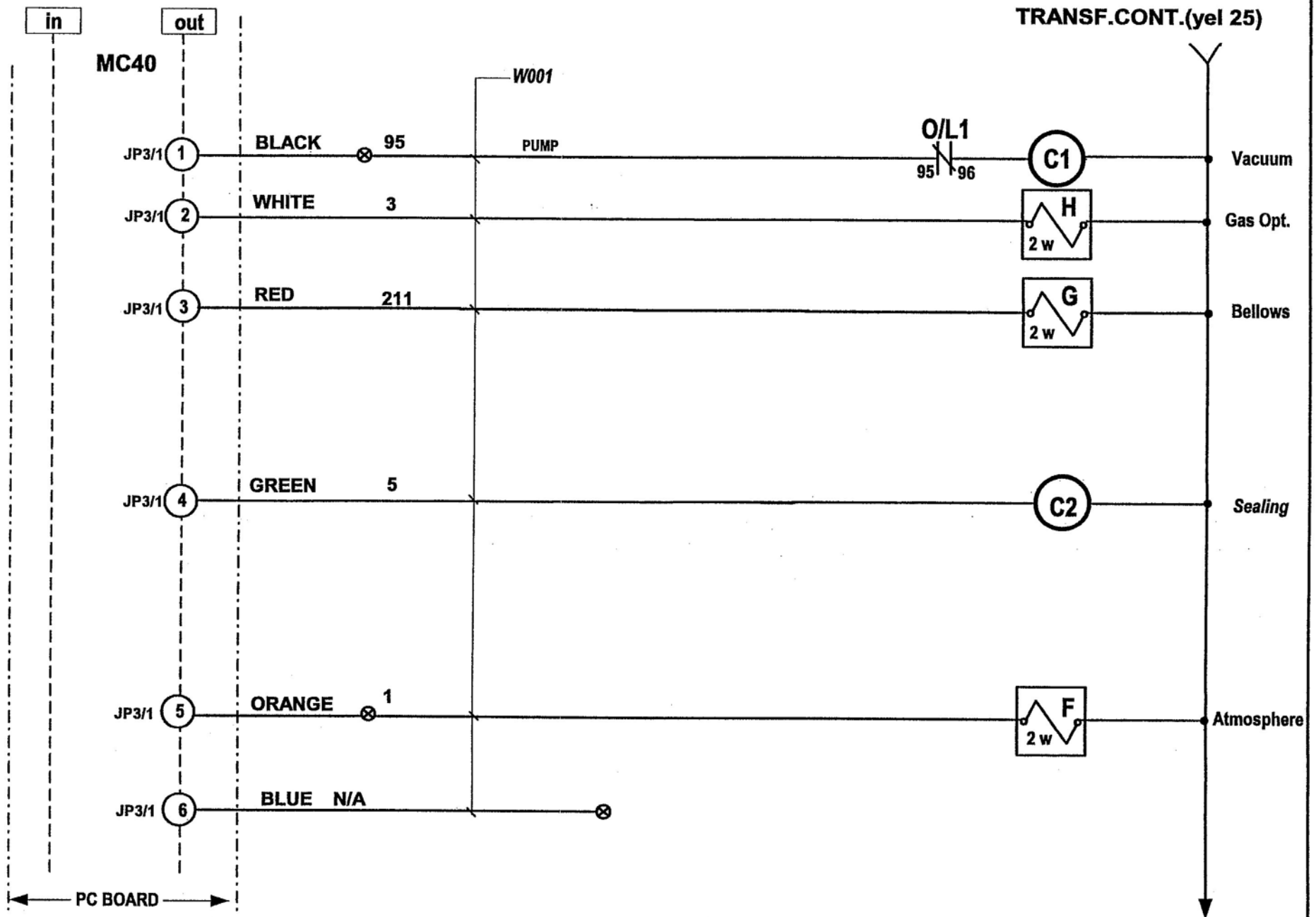
ELECTRICAL DRAWING





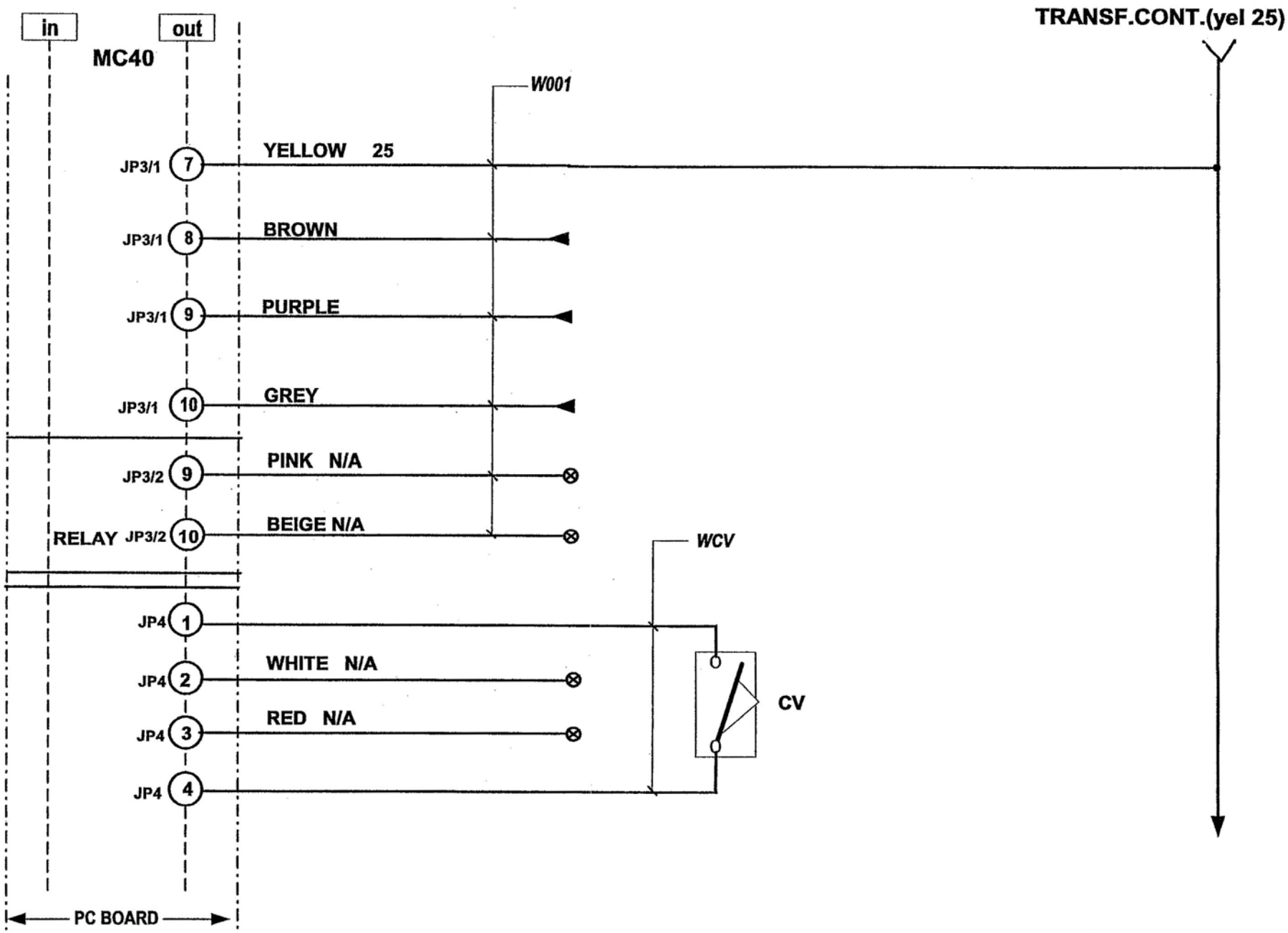


category VACUUM PACK	model 450A	volt. 3Ph 60Hz					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA	
system POWER		circuit power	year 05	month 01	day 18	block		
usual fonctions MC-40			concept PP	draw PP	app DL	006-0730	PAGE 1 de 3	
options								



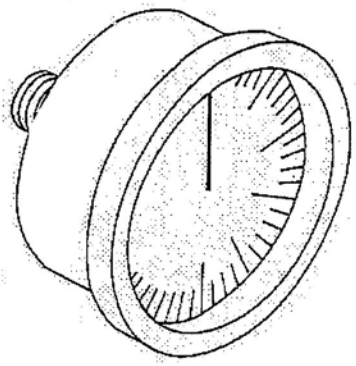
RC filters must be connected on each AC coil (not shown on diagram)

category	VACUUM PACK	model	450A	volt.	24V 60Hz			SIPROMAC
system	Control			circuit	control	year 05	month 01	day 18	block	St-Germain de Grantham QUEBEC ,CANADA
usual fonctions	MC-40					concept PP	draw PP	app DL	006-0730	PAGE 2 de 3
options										

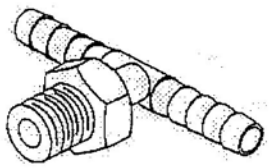


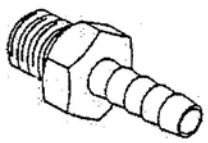
RC filters must be connected on each AC coil (not shown on diagram)

category: VACUUM PACK	model: 450A	volt.: 24V 60Hz					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA	
system: Control		circuit: control	year: 05	month: 01	day: 18	block:		
usual fonctions: MC-40			concept: PP	draw: PP	app: DL	006-0730	3 de 3	
options:								



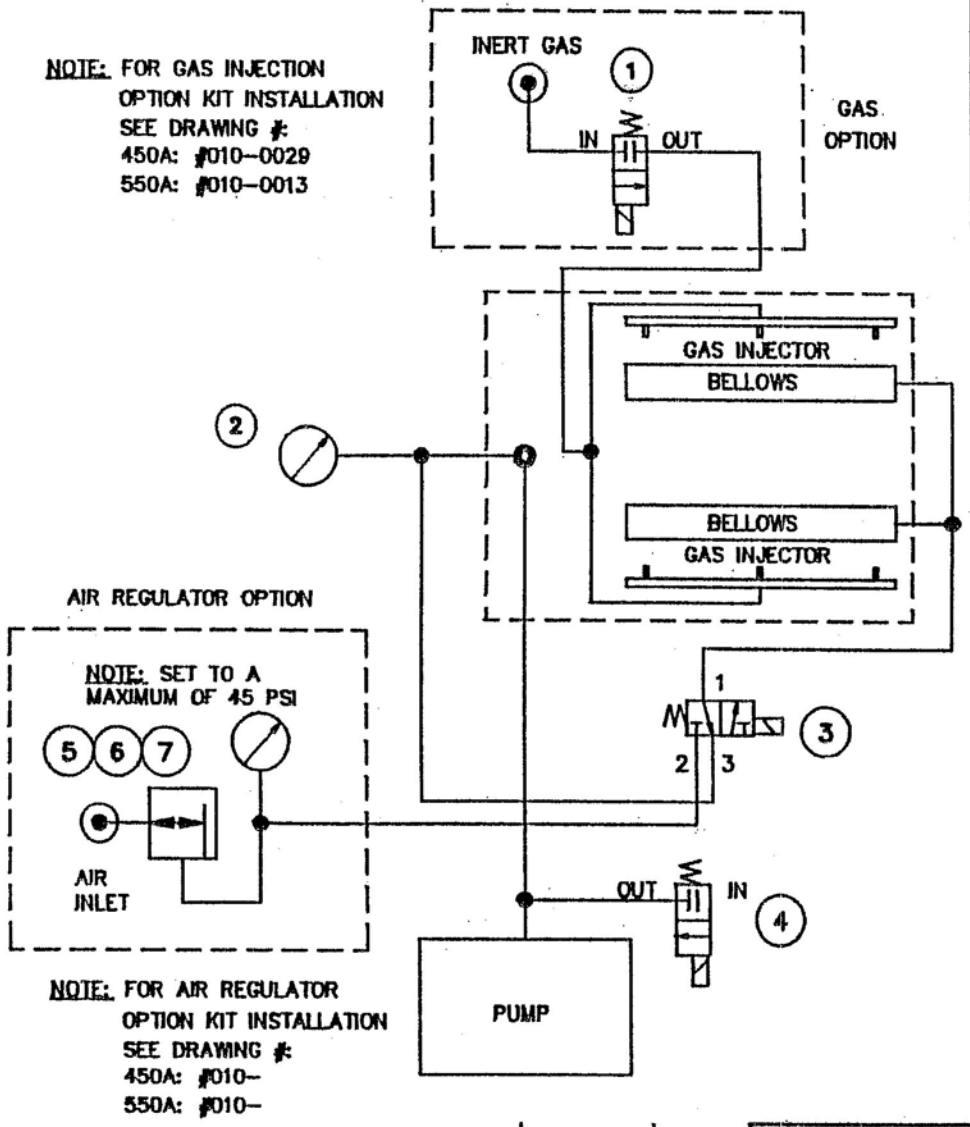
PNEUMATIC DRAWING





007-0018

ITEM	PART #	DESCRIPTION	QT.
1	106-0010	GAS VALVE	1
2	114-0260	VACUUM GAUGE	1
3	106-0070	BELLOWS VALVE	1
4	106-0030	ATMOSPHERE VALVE	1
5	114-0147	PRESSURE REGULATOR	1
6	114-0245	PRESSURE GAUGE	1
7	114-0170	PRESSURE REGULATOR SUPPORT	1



LET.	MODIFICATION	DATE	INT.
B	RE-DRAWN	97-03-12	M.L.

MACHINE: 450A & 550A

PART: PNEUMATIC DRAWING

N.T.S.

SIPROMAC
ST-GERMAIN DE GRANTHAM, QUEBEC CANADA

ITEM: CNC: SCALE: QT. 1

MAT:

DWG BY M.LAVIGNE DATE 97-03-12

APP. DATE

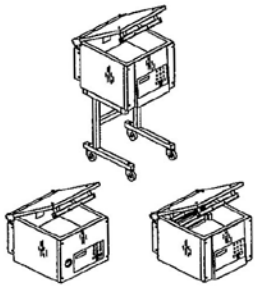
NO. 007-0018

NOTES

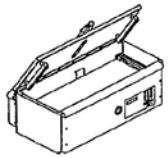
BK46713

250

300



350/350D

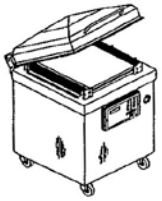


380A

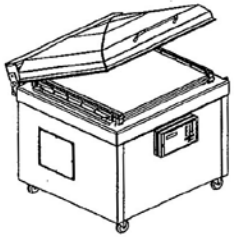
450T

400A

450A

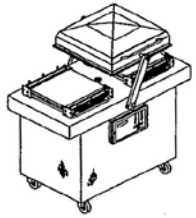


550A

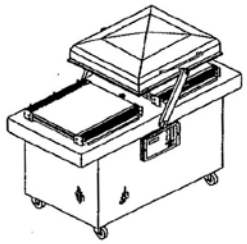


580A

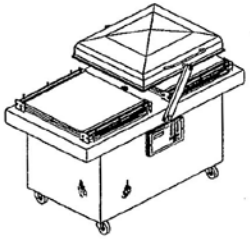
VACUUM PACKAGING MACHINES



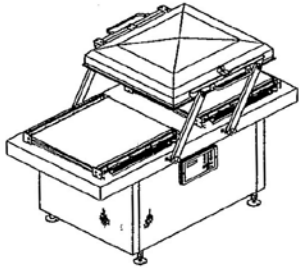
420A



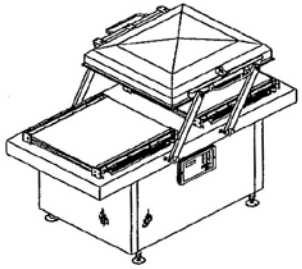
600A



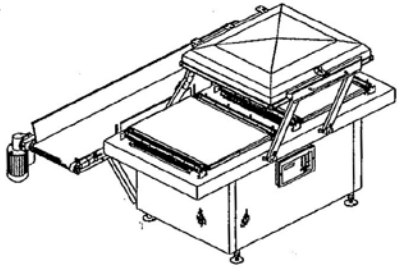
620A



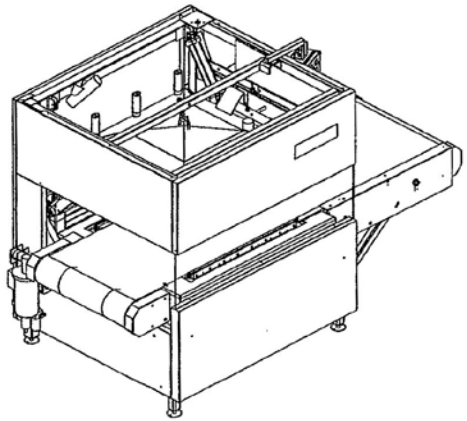
650A



680A



700A



750A