OWNER'S MANUAL
MANUEL DE L'UTILISATEUR

VACCUM MACHINE

650A

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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. Save these instructions for future reference.

VACUUM PACKAGING MACHINE

MODEL 650A

(MC-40 SIPROMAC)

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VACUUM PACKAGING MACHINES

OPERATION INSTRUCTIONS

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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 recommanded by the producer. Never exceed maximum quantity of oil indicated, when adding or changing oil. Verify weekly.

Normal ambient temperature for the vacuum pump is between 10 to 70^{o}C.For temperature below 10^{o}C; it is recommended to use synthetic oil. Please consult factory and pump manufacturer manual for more information or when ambient temperature are outside normal limits

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. GROUNDING INSTRUCTIONS: This appliance must be connected to a grounded, metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance. A qualified electrician should be consulted if there is any doubt as to whether an outlet box is properly grounded.

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.

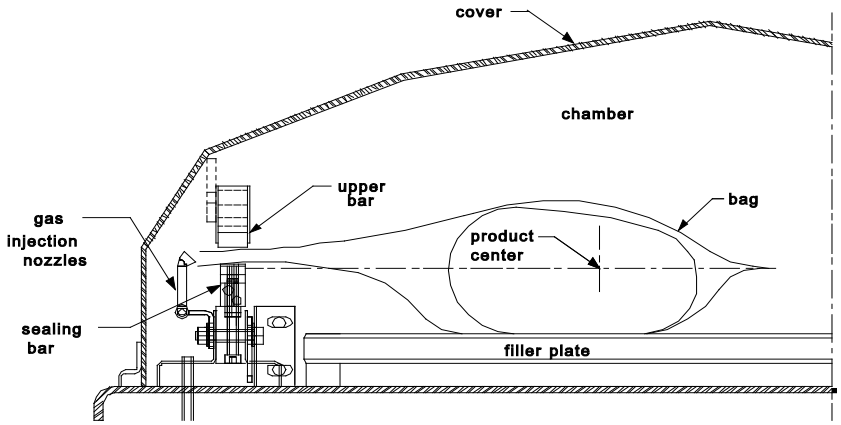


FIGURE 1

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 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 Top and bottom sealing (optional):

When sealing aluminium laminate bags (especially bags for e.g. coffee) it is imperative to have an upper and a lower sealing bar.

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 14 and the keyboard detail on page 15.

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 level setting:

For a selected program set the vacuum level, starting with the values; the decimal point is automatically inserted following the second digit entry and the validation is automatically performed following the third digit entry (the new vacuum level is blinking). The vacuum level is rounded off to the nearest half value. In the middle of an acquisition, use key "ENTER" to validate the vacuum level and key "ESC" to come backward and start over with a new acquisition (the old vacuum level is blinking). Set vacuum level to zero to bypass the pressure transducer and proceed only using the vacuum plus time.

Examples:
90.0% ➔ keys 9, 0, 0 **or** 9, 0, ENTER **or**
keys 9, 0, 1 **or** 9, 0, 2 or 9, 0, 3 or 9, 0, 4
97.5% ➔ keys 9, 7, 5 **or**
keys 9, 7, 6 **or** 9, 0, 7 or 9, 0, 8 **or** 9, 0, 9
0.0% ➔ keys 0, 0, 0 **or** 0, ENTER

3.3.3.3 Vacuum plus time setting:

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

Examples: 1s ➔ keys 0, 1 **or** 1, ENTER

15s ➔ keys 1, 5

3.3.3.4 Gas flush level setting:

For a selected program set the gas flush level following the same procedure as for the vacuum level; the maximum gas flush level setting is 10% below the vacuum setting.

3.3.3.5 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:

- chamber vacuum level during vacuum sequence,
- vacuum plus time status during vacuum plus sequence,
- chamber vacuum level during gas flush sequence,
- sealing time status during sealing sequence,
- chamber vacuum 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:

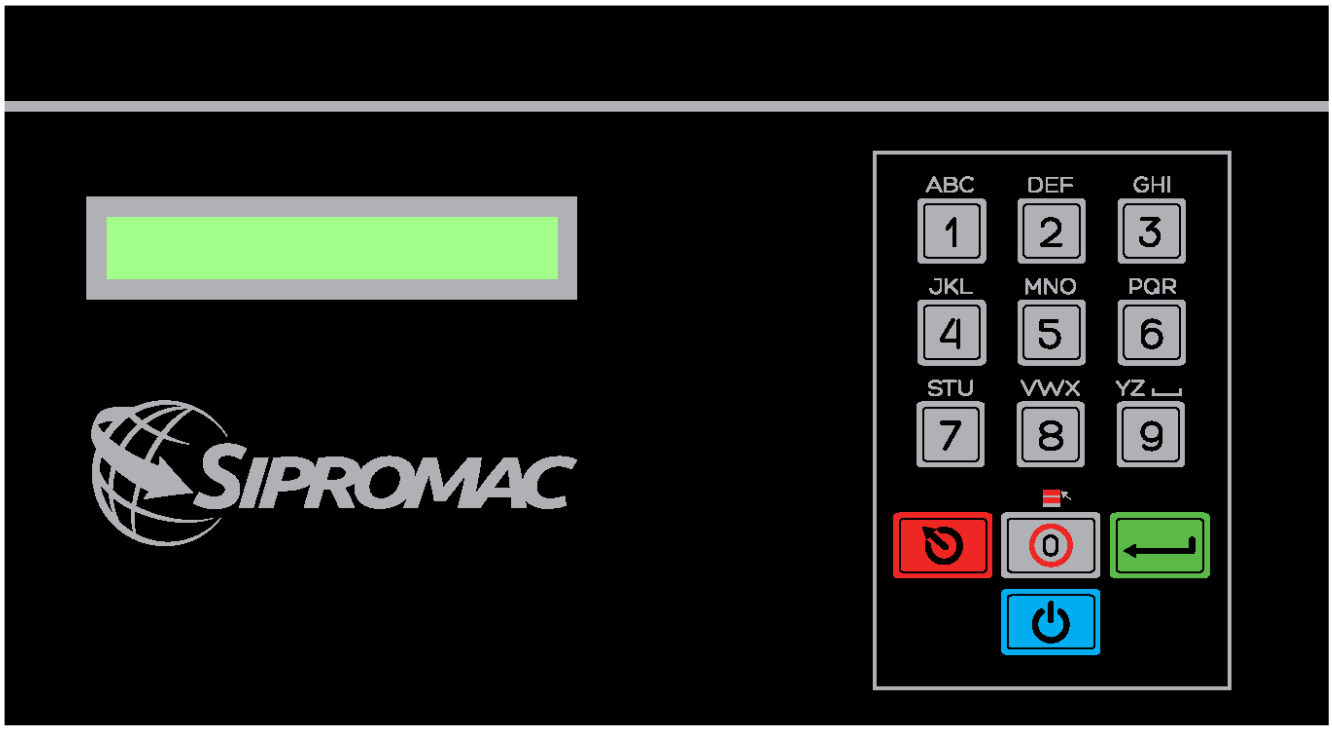
  "VACUUM: xx.x%" (10.0% - 99.5%)
  "VACUUM PLUS: xxs" (0s - 99s)
  "GAS FLUSH: xx.x%" (0.0% - 10% below the vacuum level) (units with gas option)
  "SEAL TIME: x.xxs" (0.00s - maximum unit allocated setting)
  "Pxx NAME" (12 characters)

- **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.

Cleaning instructions for gas injection nozzles: Periodically on a regular basis the gas injection nozzles must be removed with the connection tube and soaked in a food grade soap and water solution, then dried and re-installed.

4. TROUBLE SHOOTING:

4.1 Failure during packaging cycle:

4.1.1 "VACUUM ERROR" message is displayed on LCD:

No pressure variation is picked up by the PCB transducer during the vacuum sequence within a preset period of time.
- Check vacuum lines for potential leaks or kinks.

4.1.2 "GAS FLUSH ERROR" message is displayed on LCD:

No pressure variation is picked up by the PCB transducer duringthe gas flush sequence within a preset period of time.
- Check gas flush and vacuum lines for potential leaks or kinks.

4.1.3 "ATMOSPHERE ERROR" message is displayed on LCD:

No pressure variation is picked up by the PCB transducer during the atmosphere sequence within a preset period of time.
- Check vacuum lines for potential leaks or kinks.

4.1.4 "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 level is too low:

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.

Caution: Verify connections of measuring equipment before verifing 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).

Caution: 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 13.

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 connection or evident dammage to the main components: 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.

MODEL 650A
COVER ADJUSTMENT PROCEDURE

Reference Drawing:# 005-0325
004-0122

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.).

2.1 Mark position of original adjustment of guide arm length and its lower shaft position (See drawing # 005-0416; items: #39 & #16).

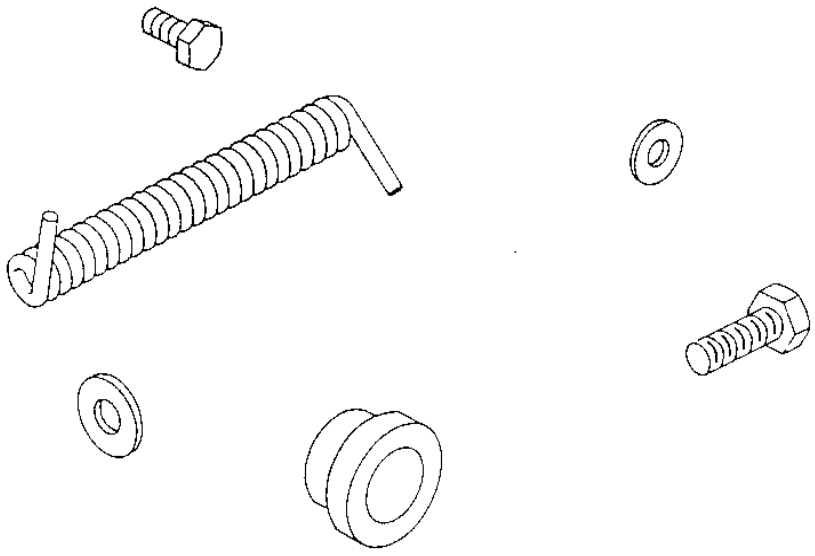
2.2 Loosen the two bolts on the guide arm (See drawing # 005-0325; items #39).

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.

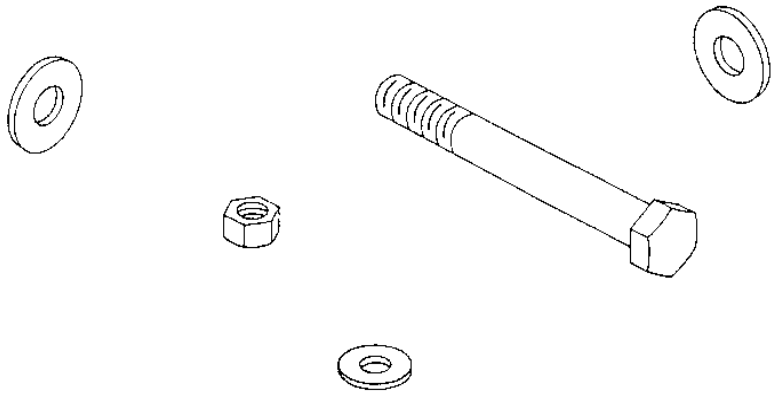
2.4 Put chamber in upright position and check with a square angle to see if arms are parallel. If not, loosen bolt at the end of one arm and adjust until square (See drawing # 005-0416; items #33, #14 & #44).

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 pillow block (See drawing # 004-0122; item #3) until cover is sealing properly each side (less than 1/16").

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 by marking its position. When chamber is at the left and at the right, tighten at the center of your marks. Adjustment can be done a couple of times until everything is ok.

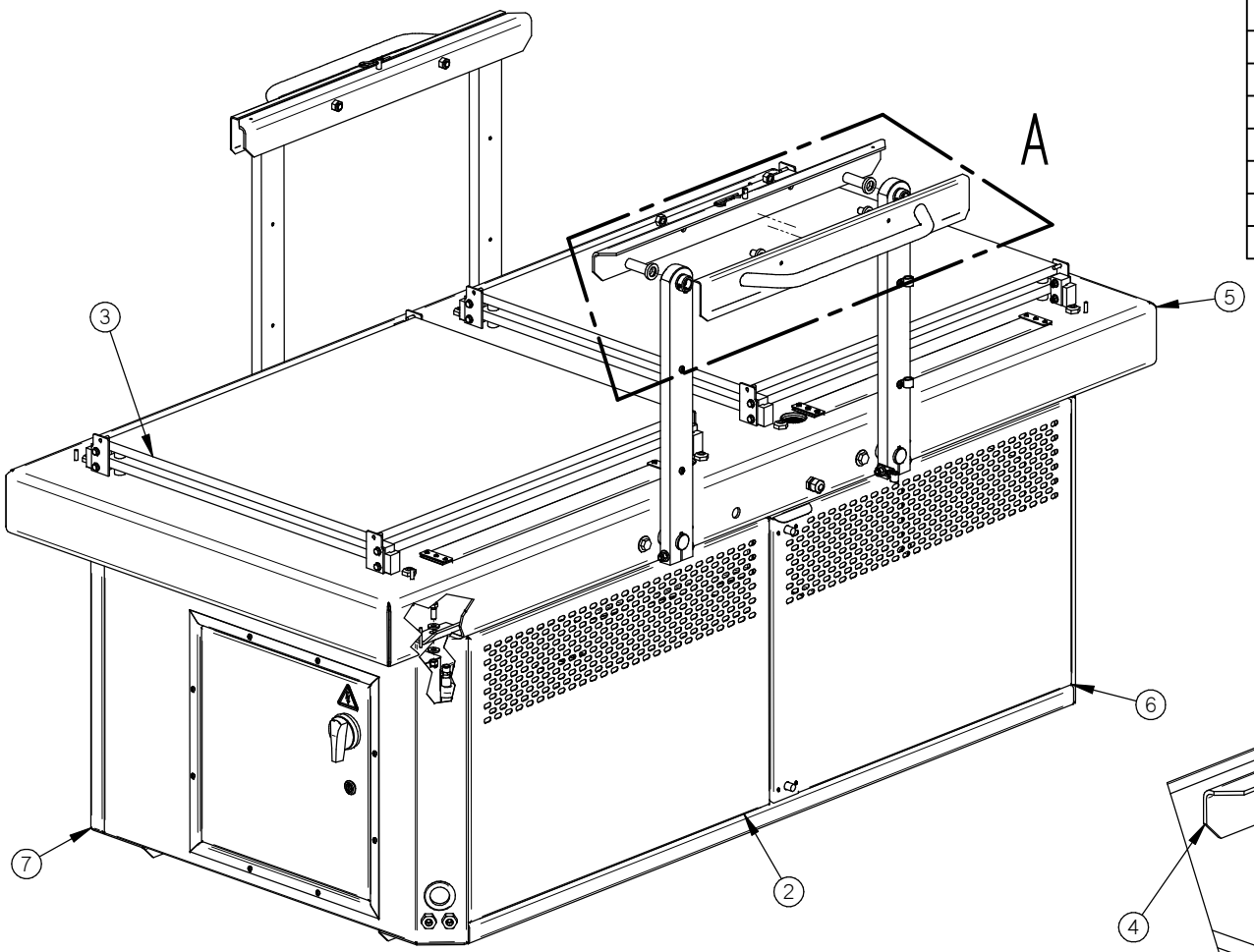


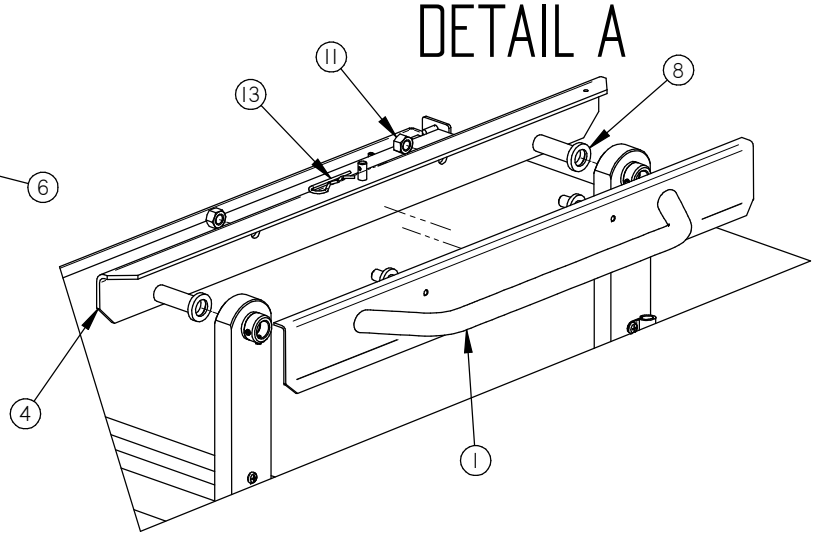
MECHANICAL DRAWING



005C0352

ITEM	PART #	DESCRIPTION	QT.
1	004A0213	COVER HANDLE ASS'Y	2
2	004A4239	LEFT REAR ACCESS DOOR PRE-ASSY	1
3	005-0349	FILLER PLATE ASSEMBLY	4
4	005-0359	ARM SUPPORT ASSEMBLY	2
5	005A1518	TABLE ASSEMBLY W/ARM	1
6	005A1519	RIGHT REAR ACCESS DOOR ASSY	1
7	005C0465	STRUCTURE ASSEMBLY	1
8	008-0368	ARM SUPPORT SPACER	4
9	051-0360	BOLT 3/8"-16nc. X 1" S/S	6
10	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	6
11	051-0630	NUT 1/2"-13 S/S	4
12	051-0783	WASHER 3/8" FLAT THICK S/S	12
13	056-0125	HITCH PIN CLIPS 3mm X 60mm S/S	2



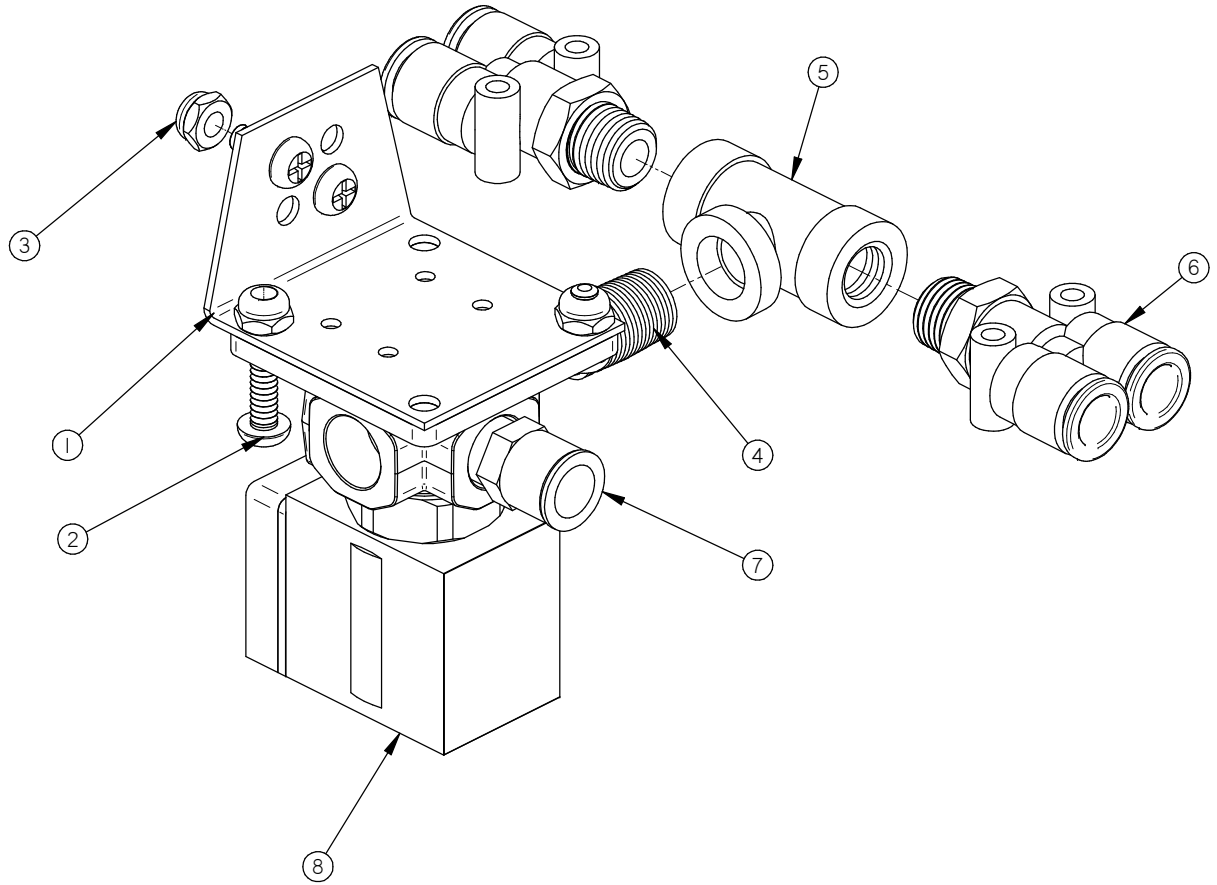


LET.	MODIFICATION	DATE	INT.

MACHINE: 650A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"			SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA
PART: BASE MACHINE ASSY		N.T.S.		
ITEM	CNC		DEPT. M	QTY. 1
MAT.	3D DWG BY: SBU 2D DWG BY: AG	DATE 14-07-14 DATE 14-08-04	NO. 005C0352	

005A1524

ITEM	PART #	DESCRIPTION	QT.
1	001B6779	VALVE SUPPORT BRACKET	1
2	051-0144	SCREW #10-24 N.C 1/2"PAN PHIL. S/S	4
3	051-0572	NUT #10-24 NYLON LOCK S/S	4
4	100-0225	CLOSE NIPPLE 1/4" NPT SS	1
5	100-0463	TEE 1/4" NPT S/S	1
6	102-0361	Y BRANCH 1/4" MNPT X 3/8" T. QUICK	2
7	102-0410	MALE CONN.1/4"MNPTx3/8"T.QUICK	1
8	106-00701	VALVE 3WAY 24V 1/4"NPT	1

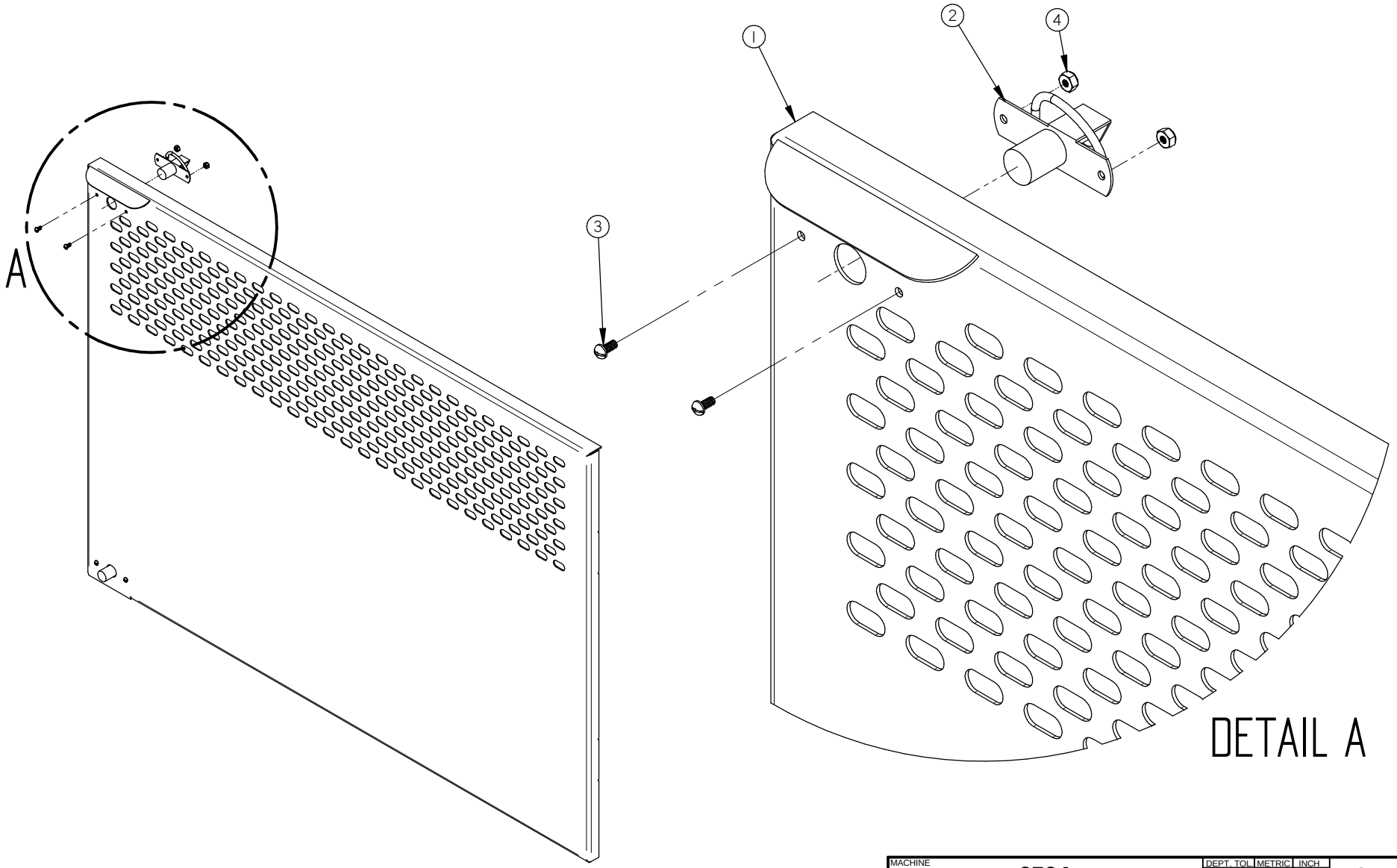


LET.	MODIFICATION	DATE	INT.

MACHINE: 650A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA			
PART: BELLOWS VALVE ASSY	N.T.S.				
ITEM	CNC	DEPT. M	QTY. 1		
MAT.	3D DWG BY: SBU 2D DWG BY: XX	DATE: 14-07-17 DATE: YY-MM-DD	NO. 005A1524		

005A1519

ITEM	PART #	DESCRIPTION	QT.
1	004A4238	RIGHT REAR ACCESS DOOR PRE-ASSY	1
2	056-2600	SPRING PAWL LATCHE SS KNOB	2
3	051-0071	SCREW 4-40 x 1/4" RND SLOT S/S	4
4	051-0541	NUT # 4-40 NYLON LOCK SS	4



LET.	MODIFICATION	DATE	INT.

MACHINE: **650A**

PART: **RIGHT REAR ACCESS DOOR ASSY**

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

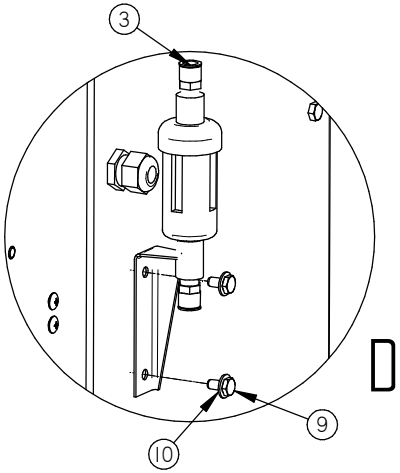
ITEM: _____ CNC: _____ DEPT.: **M** QTY.: **1**

MAT.: _____ DWG BY: **SBU** DATE: **13-09-16** NO.: **005A1519**

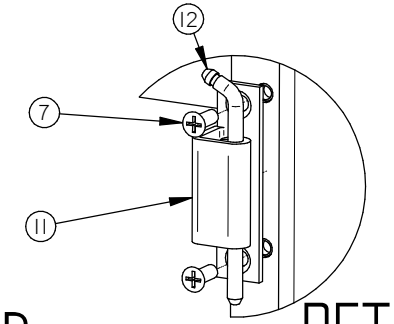
APP. BY: _____ DATE: _____

005C0465

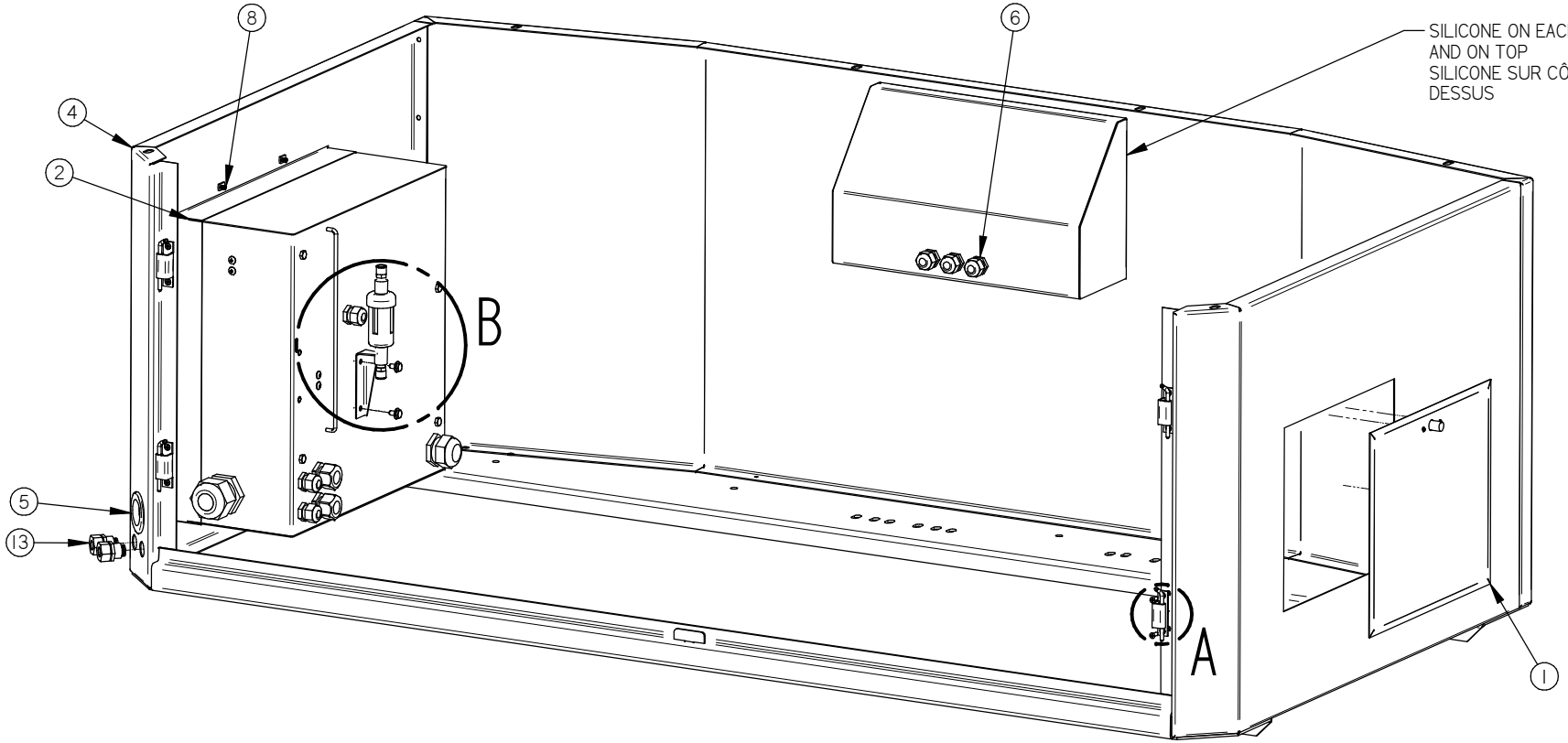
ITEM	PART #	DESCRIPTION	QT.
1	004A4090	ACCESS DOOR ASSEMBLY	1
2	004A4098	ELECTRIC BOX ASS'Y	1
3	004A4138	VACUUM SENSOR FILTER	1
4	004C0138	STRUCTURE PRE-ASSY	1
5	036-0265	GROMMET 1-1/2" ID X 2-3/8" OD RUBBER	1
6	036-0409	PRESSE-ETOUPE CD13	3
7	051-01385	SCREW 10-24 x 1/2"FLAT-UND. PHIL S/S	8
8	051-0144	SCREW #10-24 N.C 1/2"PAN PHIL. S/S	8
9	051-0180	BOLT. HEX. 1/4"-20 NC. x 1/2" S/S	2
10	051-0740	WASHER 1/4" FLAT S/S	2
11	056-3010-1	HINGE CONCEALED SS304 - BASE	4
12	056-3010-3	HINGE CONCEALED SS304 - PIN	4
13	102-0551	BULKHEAD 1/4"NPT X 3/8 TUBE QUICK	2



DETAIL B



DETAIL A

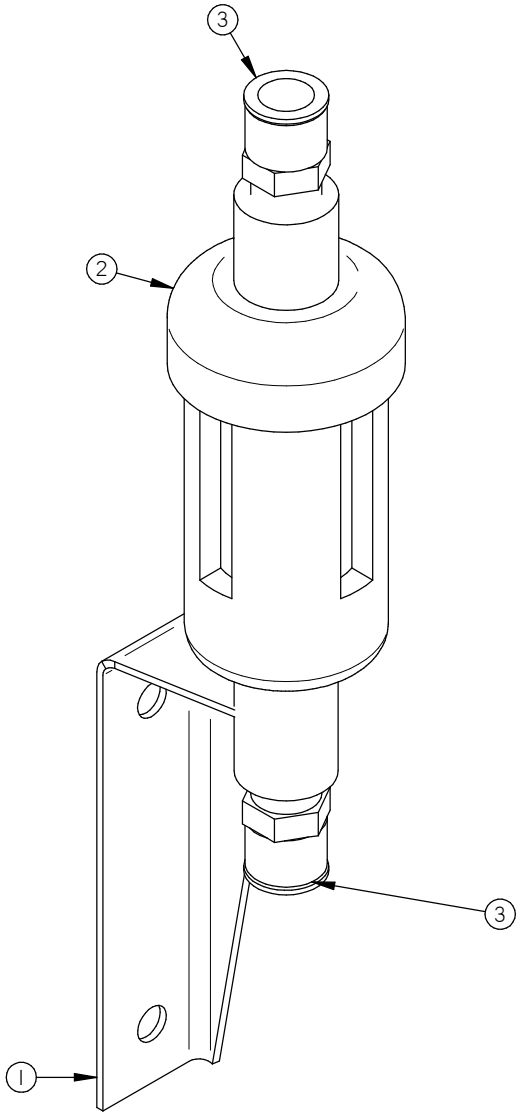


MACHINE: 650A		DEPT. TOL	METRIC	INCH	SIPROMAC
		USINAGE	± 0.1	± 0.004"	ST-GERMAIN DE GRANTHAM
		TOLERIE	± 0.5	± 0.020"	QUEBEC CANADA
PART: STRUCTURE ASSEMBLY		SOUDAGE	± 0.5	± 0.020"	
		N.T.S.			
ITEM	CNC	DEPT. M-(M)-I	QTY. 1		
MAT.	DWG BY SBU	DATE 14-07-16	NO. 005C0465		
	APP. BY	DATE			

LET.	MODIFICATION	DATE	INT.

004A4138

ITEM	PART #	DESCRIPTION	QT.
1	004A4139	VACUUM SENSOR FILTER SUPPORT	1
2	114-2020	FILTER / DRYER ¼"mnpt. X 1/4"t.p. COMP.	1
3	102-0410	MALE CONN.1/4"MNPTx3/8"T.QUICK	2



LET.	MODIFICATION	DATE	INT.

MACHINE: **VACUUM**

PART: **VACUUM SENSOR FILTER**

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: _____ CNC: _____ DEPT. **M** QTY. **1**

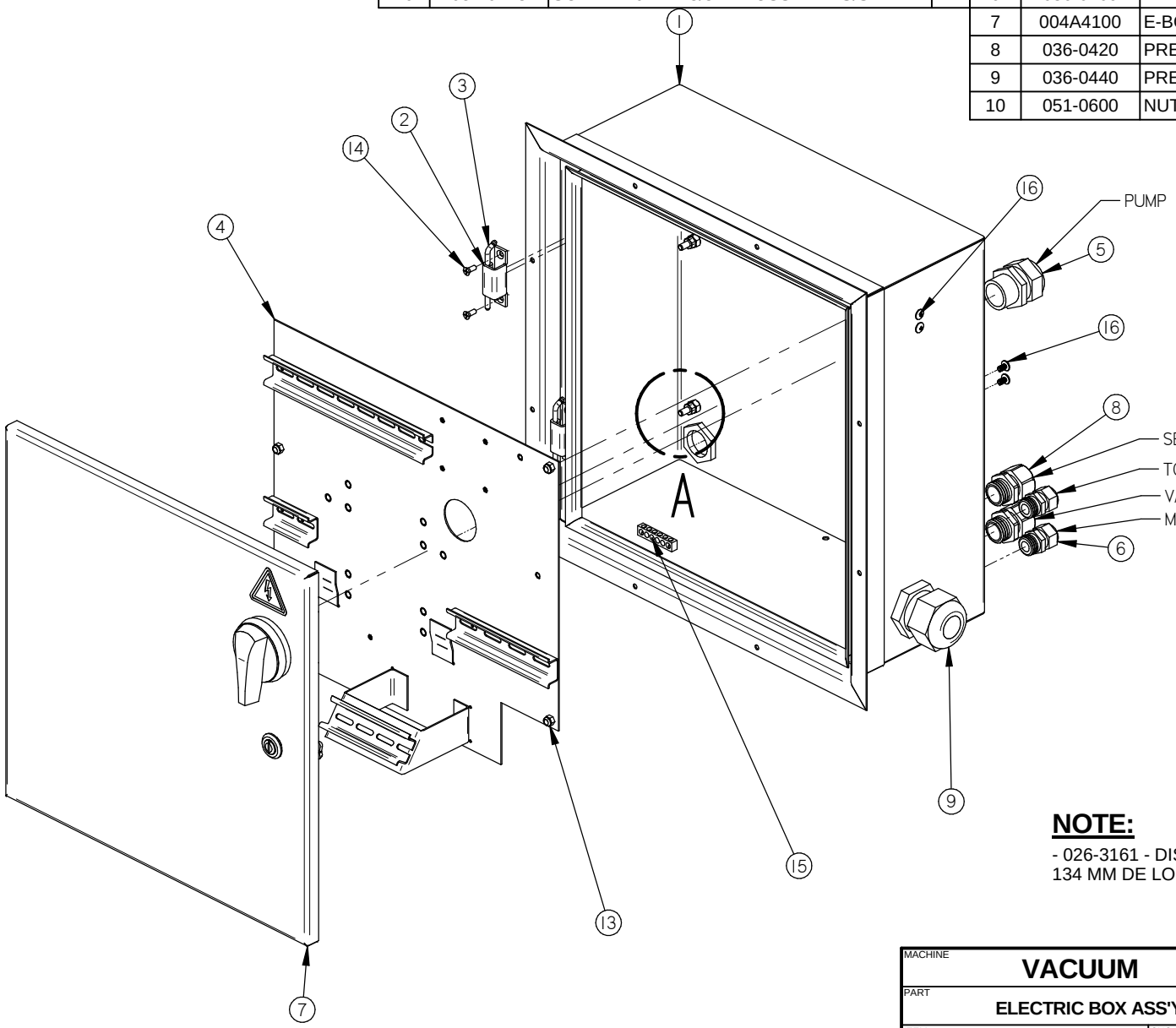
MAT.: _____ DWG BY **SBU** DATE **13-11-19** NO. **004A4138**

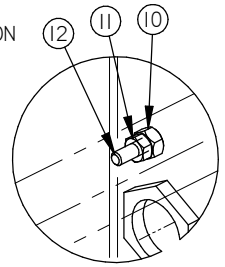
APP. BY: _____ DATE: _____

004A4098

ITEM	PART #	DESCRIPTION	QT.
11	051-0580	NUT 1/4"-20 S/S	4
12	051-0210	BOLT ¼"-20nc. X 1" S/S	4
13	051-0581	NUT 1/4"-20 NYLON LOCK S/S	4
14	051-0139	SCREW 10-24 x 1/2" FLAT PHIL S/S	4
15	028-0105	GROUND BARRIER (6 HOLES)	1
16	051-0128	SCREW 10-24 x 3/8" TRUSS PHIL S/S	4

ITEM	PART #	DESCRIPTION	QT.
1	004A4099	E-BOX PRE-ASSY	1
2	056-3010-1	HINGE CONCEALED SS304 - BASE	2
3	056-3010-3	HINGE CONCEALED SS304 - PIN	2
4	004A4102	E-BOX FALSE BOTTOM	1
5	036-0430	PRESSE-ÉTOUPE CD29	1
6	036-0409	PRESSE-ETOUPE CD13	3
7	004A4100	E-BOX DOOR ASSEMBLY	1
8	036-0420	PRESSE-ÉTOUPE CD21	2
9	036-0440	PRESSE-ÉTOUPE CD36	1
10	051-0600	NUT 5/16" -18 S/S	4





DETAIL A

NOTE:

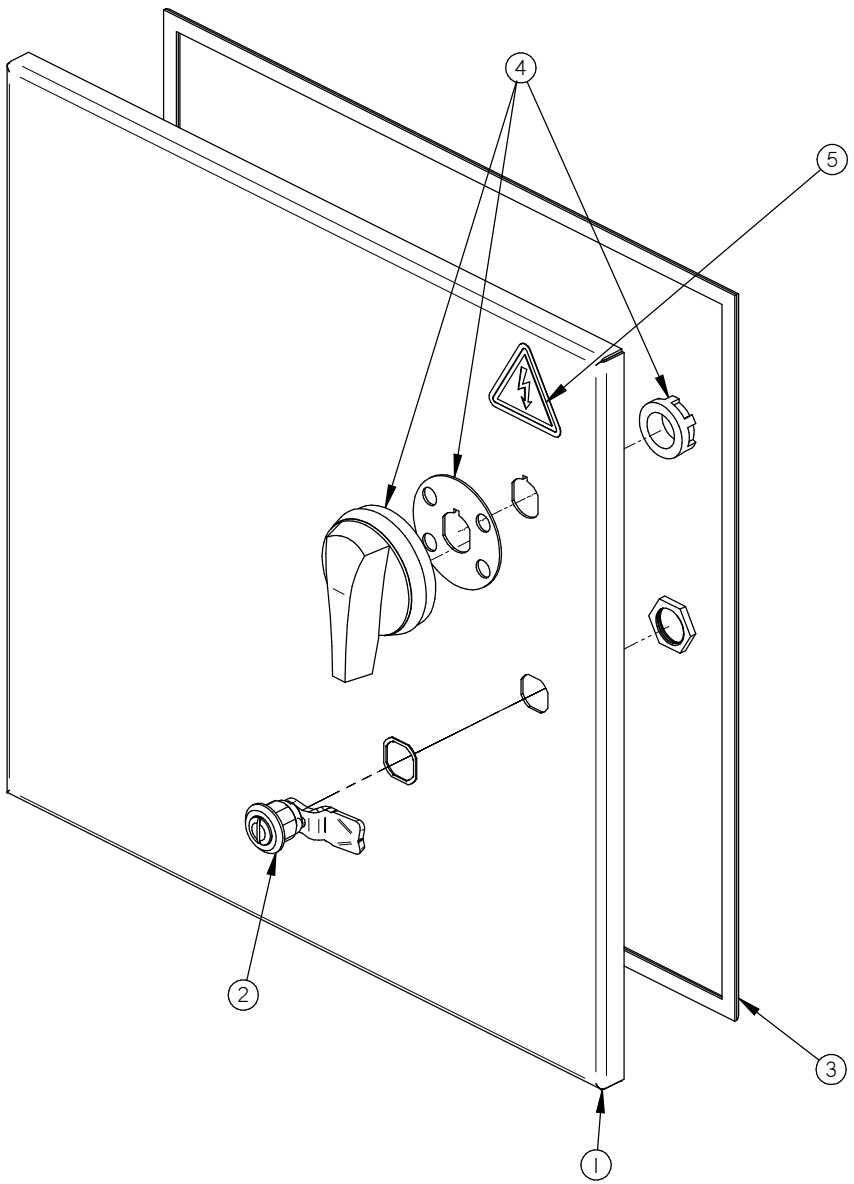
- 026-3161 - DISCONNECT SWITCH SHAFT: COUPER À 134 MM DE LONG.

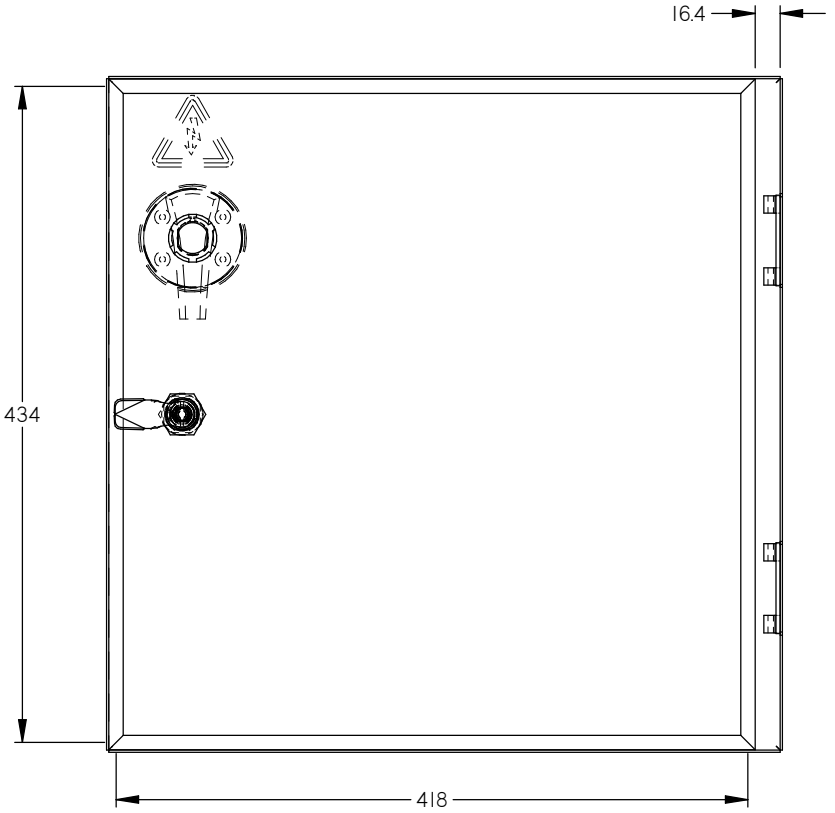
LET.	MODIFICATION	DATE	INT.

MACHINE: VACUUM	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: ELECTRIC BOX ASS'Y	N.T.S.		
ITEM	CNC	DEPT. M	QTY. 1
MAT.	DWG BY SBU / APP. BY	DATE 13-09-23 / DATE	NO. 004A4098

004A4100

ITEM	PART #	DESCRIPTION	QT.
1	004A4101	E-BOX DOOR PRE-ASSY	1
2	056-2612	CAM LOCK QUARTER TURN SS304	1
3	179-0026	D-SHAPED RUBBER SEAL 1683mm LONG	1
4	026-3160	HANDLE RED/YELLOW NEMA 4X, COMPACT, PADLOCKABLE	1
5	127-0100	STICKER ELEC.HAZARD ISO 2-1/2" TRIANGLE	1



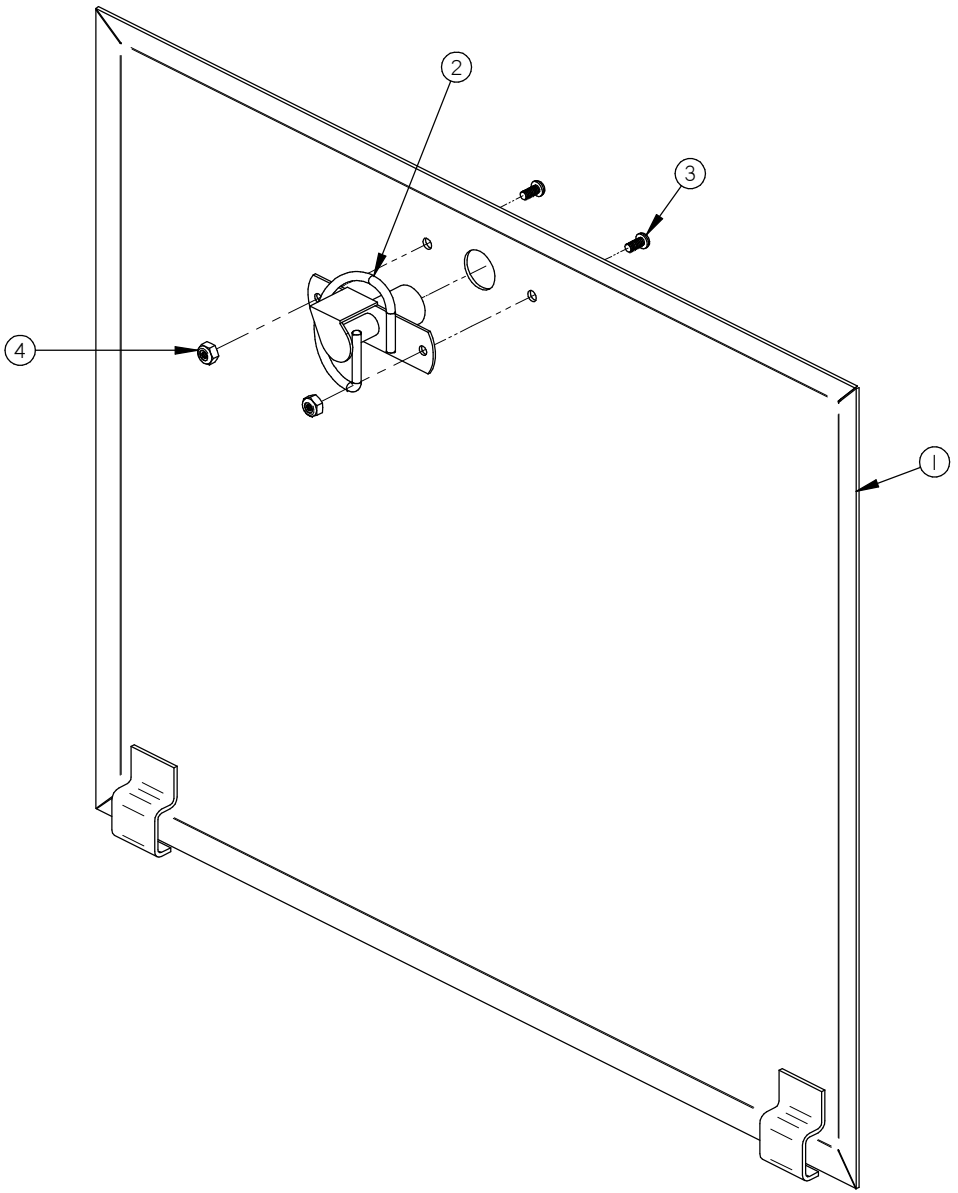


LET.	MODIFICATION	DATE	INT.

MACHINE: VACUUM	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: E-BOX DOOR ASSEMBLY	N.T.S.		
ITEM	CNC	DEPT. M	QTY. 1
MAT.	DWG BY SBU / APP. BY	DATE 13-09-17 / DATE	NO. 004A4100

004A4090

ITEM	PART #	DESCRIPTION	QT.
1	004A4089	ACCESS PANEL PRE-ASSY	1
2	056-2600	SPRING PAWL LATCHE SS KNOB	1
3	051-0071	SCREW 4-40 x 1/4" RND SLOT S/S	2
4	051-0541	NUT # 4-40 NYLON LOCK SS	2



LET.	MODIFICATION	DATE	INT.

MACHINE: **VACUUM**

PART: **ACCESS DOOR ASSEMBLY**

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

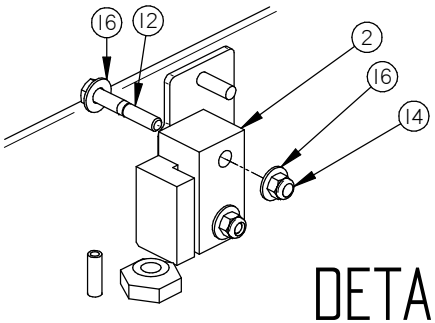
ITEM | CNC | DEPT. **M** | QTY. **1**

MAT. | DWG BY **SBU** | DATE **13-09-11** | NO. **004A4090**

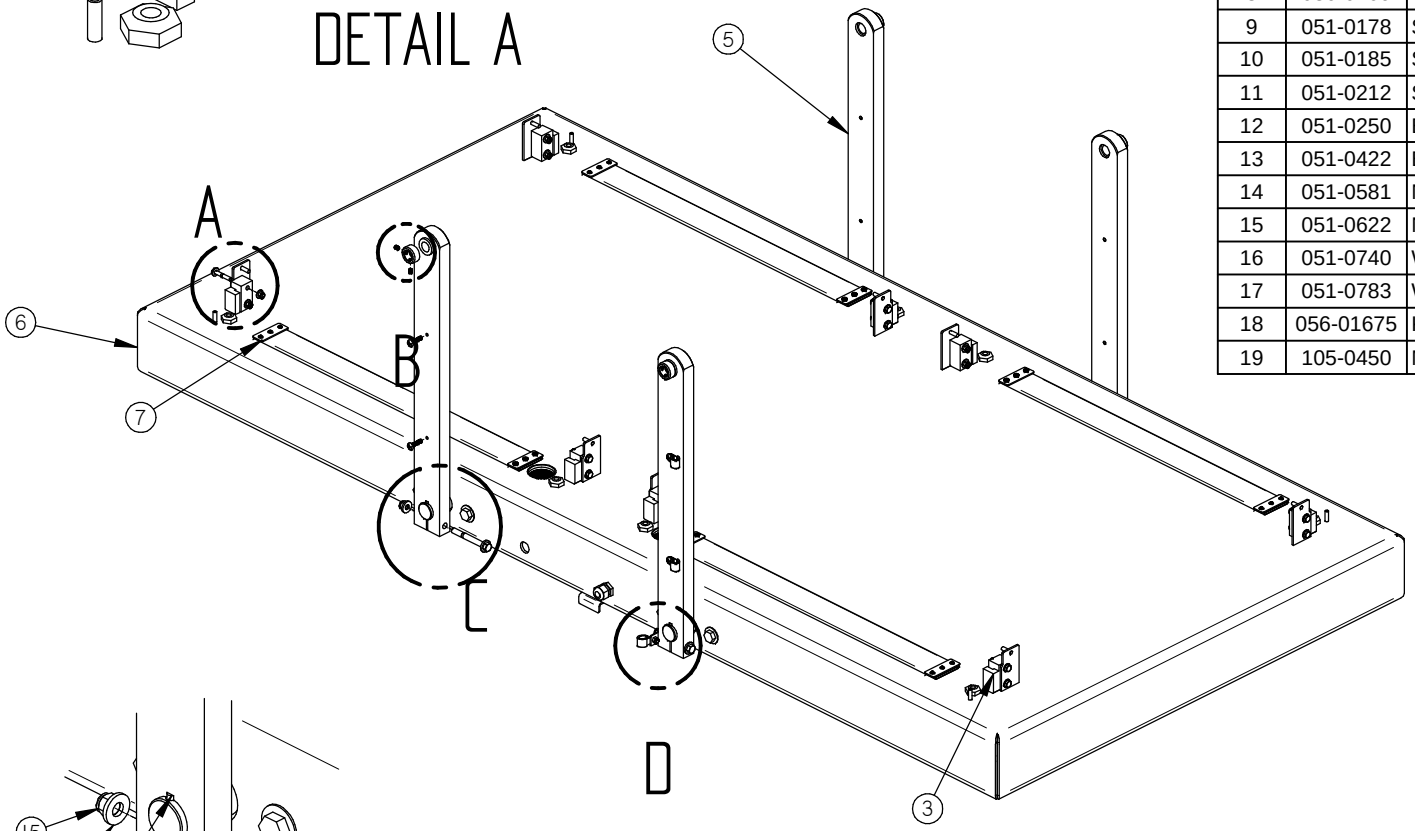
APP. BY | DATE

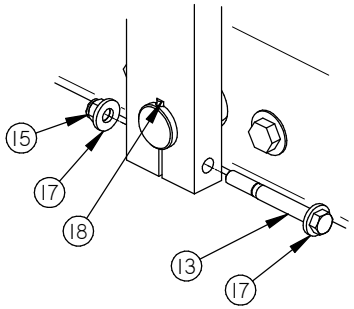
005A1518

ITEM	PART #	DESCRIPTION	QT.
1	001-1876	LOWER WIRE SUPPORT	1
2	002-0326	LEFT SEAL BAR GUIDE BLOCK	4
3	002-0327	RIGHT SEAL BAR GUIDE BLOCK	4
4	002-0390	COVER ARM COLLAR	4
5	004B0383	COVER ARM ASSY	4
6	004C0137	TABLE ASSEMBLY	1
7	005-0651	BELLOWS ASSEMBLY	4
8	036-0409	PRESSE-ETOUPE CD13	1
9	051-0178	SCREW 1/4"-20 x 5/16" SKT SET S/S	8
10	051-0185	SCREW 1/4-20x 1/2"PAN PHIL S/S	1
11	051-0212	SCREW 1/4"-20 x 1" PAN PHILL S/S	8
12	051-0250	BOLT ¼"-20nc. X 1½" S/S	16
13	051-0422	BOLT 3/8"-16nc. X 3¼" S/S	4
14	051-0581	NUT 1/4"-20 NYLON LOCK S/S	17
15	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	4
16	051-0740	WASHER 1/4" FLAT S/S	32
17	051-0783	WASHER 3/8" FLAT THICK S/S	8
18	056-01675	KEY 1/4" SQ. x 1 1/4" ROUNDED END S/S	4
19	105-0450	METAL CABLE CLAMPS #6 SS	3

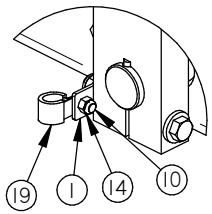


DETAIL A

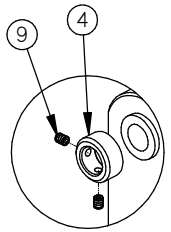




DETAIL C



DETAIL D



DETAIL B

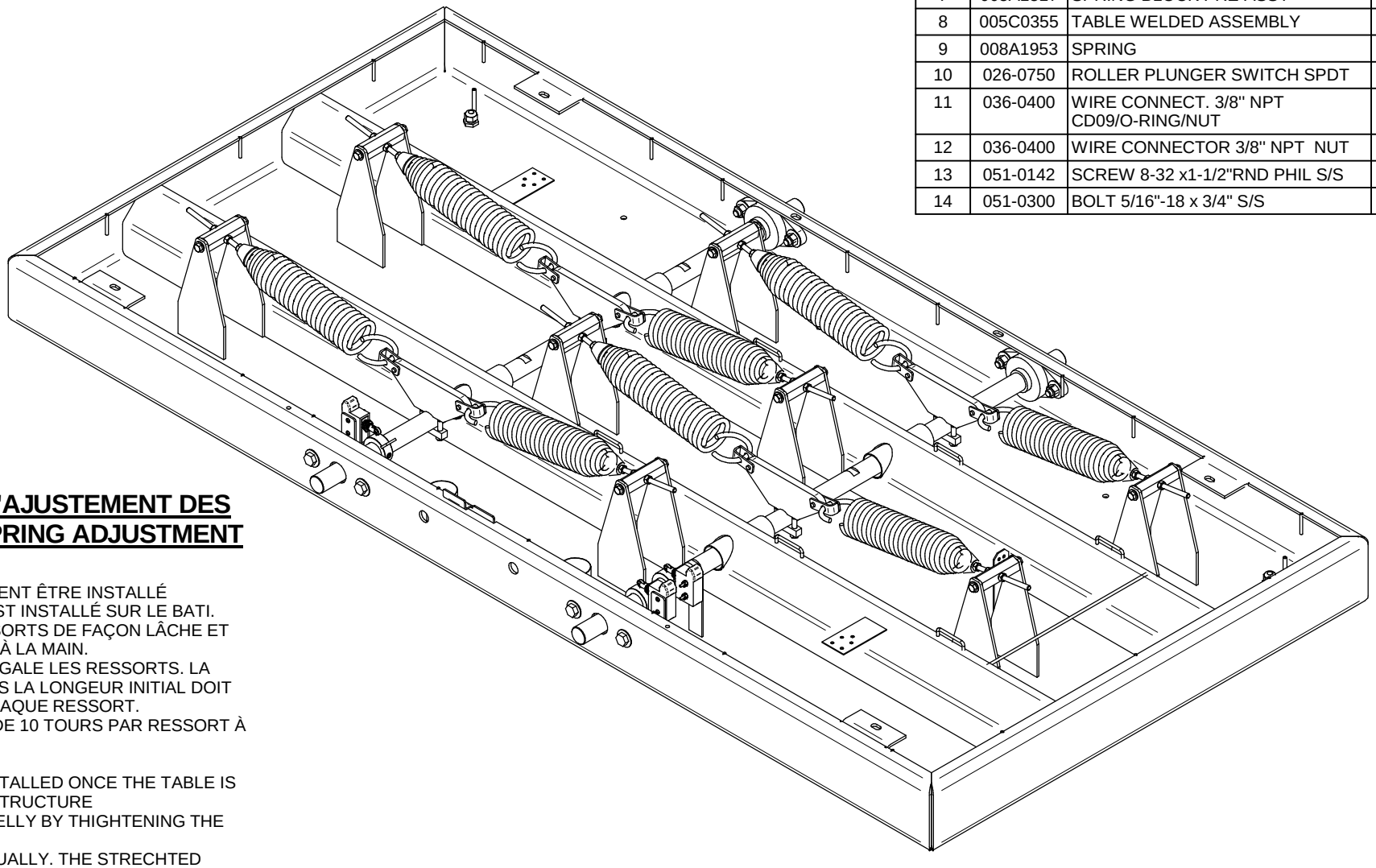
LET.	MODIFICATION	DATE	INT.

MACHINE	650A	DEPT. TOL	METRIC	INCH
		USINAGE	± 0.1	± 0.004"
		TOLERIE	± 0.5	± 0.020"
		SOUDAGE	± 0.5	± 0.020"
PART	TABLE ASSEMBLY W/ARM	N.T.S.		SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA
ITEM		CNC		DEPT. M / QTY. 1
MAT.		3D DWG BY SBU	DATE 14-07-10	NO. 005A1518
		2D DWG BY AG	DATE 14-07-31	

ITEM	PART #	DESCRIPTION	QT.
20	051-0760	WASHER 5/16" FLAT S/S	16
21	051-0790	WASHER 1/2" FLAT S/S	16
22	075-1655	2 BOLT FLANGED BEARING 1-1/4" PLASTIC	4

ITEM	PART #	DESCRIPTION	QT.
15	051-0441	BOLT 1/2"-13 x 1 1/2" SS	8
16	051-0560	NUT #8-32 NYLON LOCK S/S	6
17	051-0600	NUT 5/16" -18 S/S	16
18	051-0630	NUT 1/2"-13 S/S	8
19	051-0720	WASHER #8 FLAT S/S	6

ITEM	PART #	DESCRIPTION	QT.
1	002A3941	SPRING ADJ. PIVOT	8
2	002A4002	SPRING ADJ. PIVOT SPACER	16
3	002B0331	CENTRAL SHAFT	2
4	004A3937	SHACKLE ASS'Y	8
5	004A3968	SPRING INSERT ASSEMBLY	8
6	005A1437	MICRO SWITCH COLLAR ASSY	3
7	005A1517	SPRING BLOCK PRE-ASSY	4
8	005C0355	TABLE WELDED ASSEMBLY	1
9	008A1953	SPRING	8
10	026-0750	ROLLER PLUNGER SWITCH SPDT	3
11	036-0400	WIRE CONNECT. 3/8" NPT CD09/O-RING/NUT	8
12	036-0400	WIRE CONNECTOR 3/8" NPT NUT	8
13	051-0142	SCREW 8-32 x1-1/2"RND PHIL S/S	6
14	051-0300	BOLT 5/16"-18 x 3/4" S/S	16



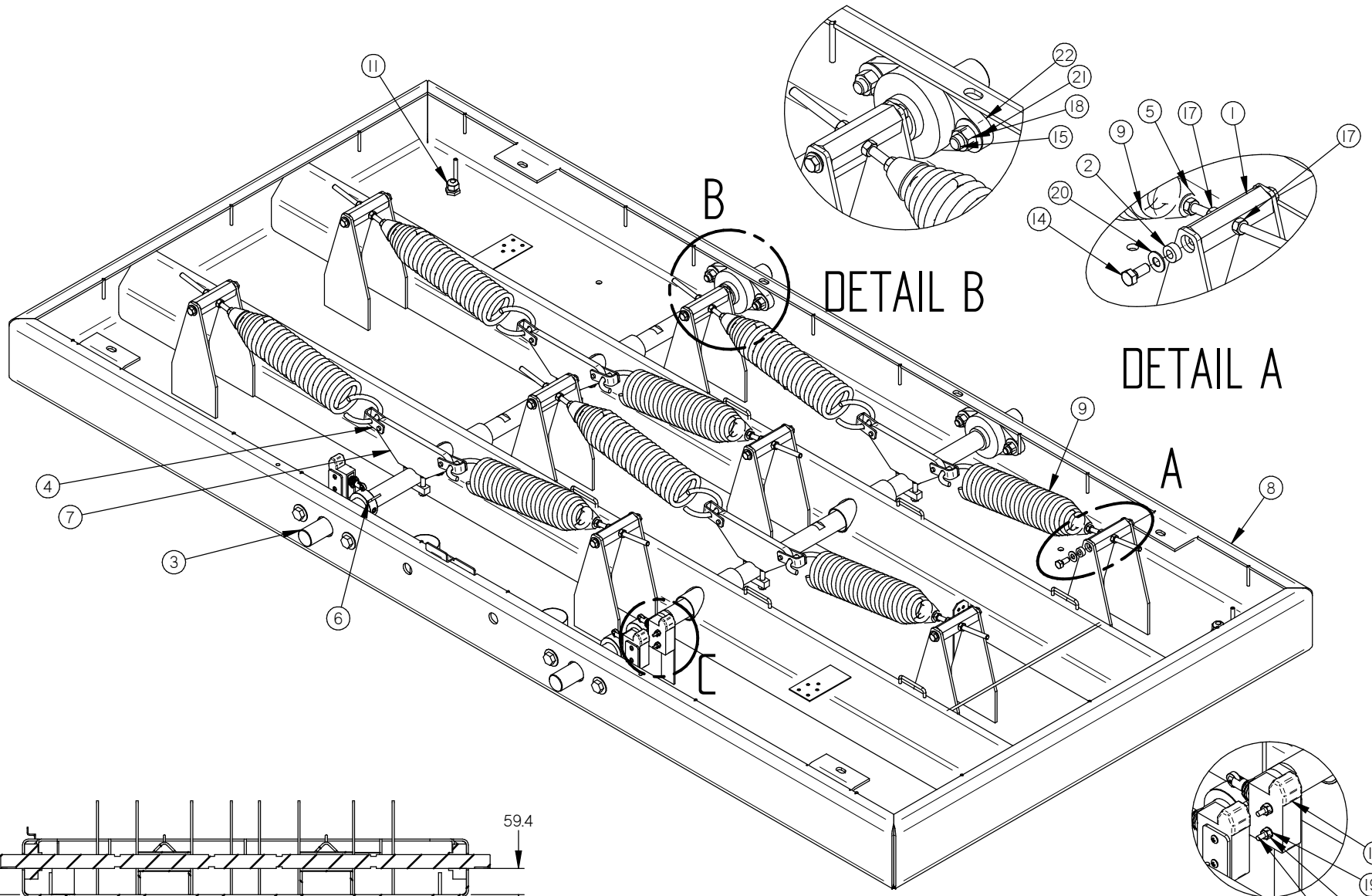
PROCÉDURE D'AJUSTEMENT DES RESSORTS / SPRING ADJUSTMENT PROCEDURE:

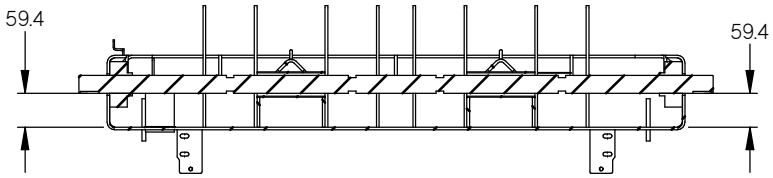
- LES RESSORTS DOIVENT ÊTRE INSTALLÉ LORSQUE LA TABLE EST INSTALLÉ SUR LE BATI.
- INSTALLER LES RESSORTS DE FAÇON LÂCHE ET SERRER LES ÉCROUS À LA MAIN.
- TENDRE DE FAÇON ÉGALE LES RESSORTS. LA LONGEUR ÉTIRÉ MOINS LA LONGEUR INITIAL DOIT ÊTRE ÉGALE POUR CHAQUE RESSORT.
- NE PAS FAIRE PLUS DE 10 TOURS PAR RESSORT À LA FOIS

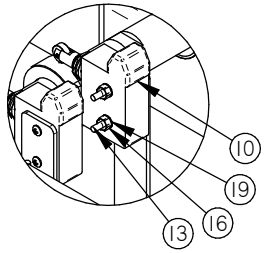
- SPRING MUST BE INSTALLED ONCE THE TABLE IS ASSEMBLED ON THE STRUCTURE
- INSTALL THEM LOOSELLY BY THIGHTENING THE NUT BY HAND
- TENSION SPRING EQUALLY. THE STRECHTED LENGTH MINUS THE INITIAL LENGTH MUST BE THE SAME ON EACH SPRING.
- DO NOT STRETCH THE SPRING BY MORE THAN 10 NUT TURN AT A TIME PER SPRING.

LET.	MODIFICATION	DATE	INT.

MACHINE	650A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 / ± 0.004"; TOLERIE ± 0.5 / ± 0.020"; SOUDAGE ± 0.5 / ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA
PART	TABLE ASSEMBLY	N.T.S.	
ITEM	CNC	DEPT. M-I	QTY. 1
MAT.	3D DWG BY SBU DATE 14-07-09 2D DWG BY SBU DATE 14-10-08	NO. 004C0137	







DETAIL C

AJUSTEMENT DE L'ARBRE / SHAFT ADJUSTMENT

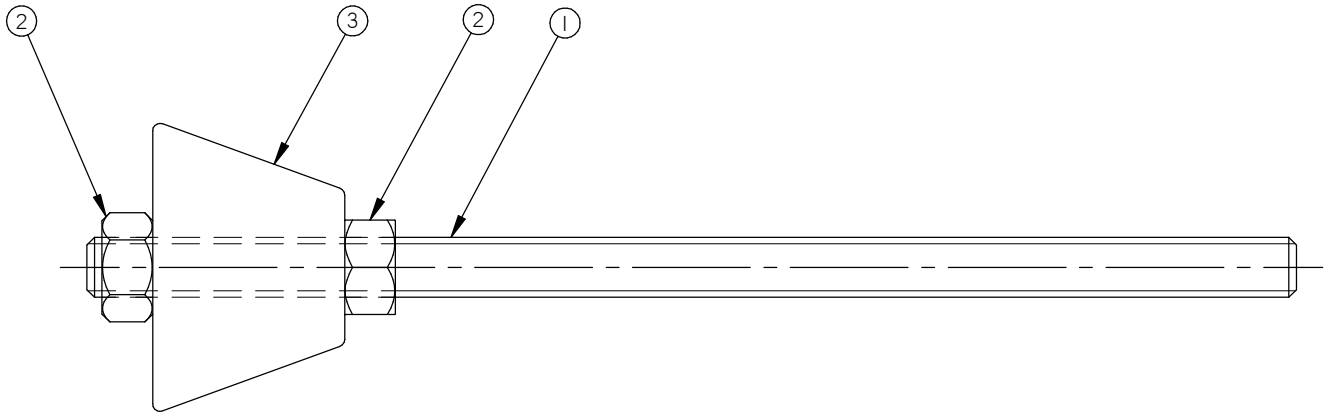
- UTILISER LES CALES POUR POSITIONNER L'ARBRE
- CENTRER L'ARBRE HORIZONTALEMENT DANS LE TROU DE LA TABLE

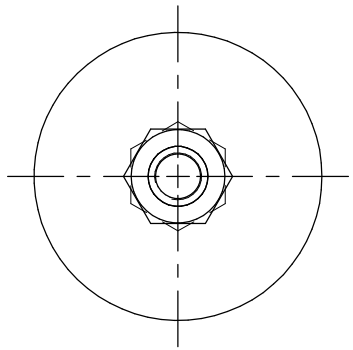
- USE BLOC TO SPACE THE SHAFT ACCORDINGLY
- CENTER SHAFT HORIZONTALLY IN THE TABLE HOLE

MACHINE: 650A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"		SIPROMAC		
PART: TABLE ASSEMBLY	N.T.S.		ST-GERMAIN DE GRANTHAM QUEBEC CANADA		
ITEM	CNC		DEPT. M-I	QTY. 1	
MAT.	3D DWG BY SBU	DATE 14-07-09	NO. 004C0137		
	2D DWG BY	DATE			

004A3968

ITEM	PART #	DESCRIPTION	QT.
1	002A3989	SPRING ADJUSTMENT ROD	1
2	051-0600	NUT 5/16" -18 S/S	2
3	002B3940	SPRING INSERT	1





MACHINE	QTY
650A	8
620A	4
600A	4
420A	2

MACHINE: **VACUUM**

PART: **SPRING INSERT ASSEMBLY**

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

CNC

DEPT. **M-(M)**

QTY. **LISTE**

MAT.

DWG BY **J.G.**

DATE **13-01-15**

APP. BY

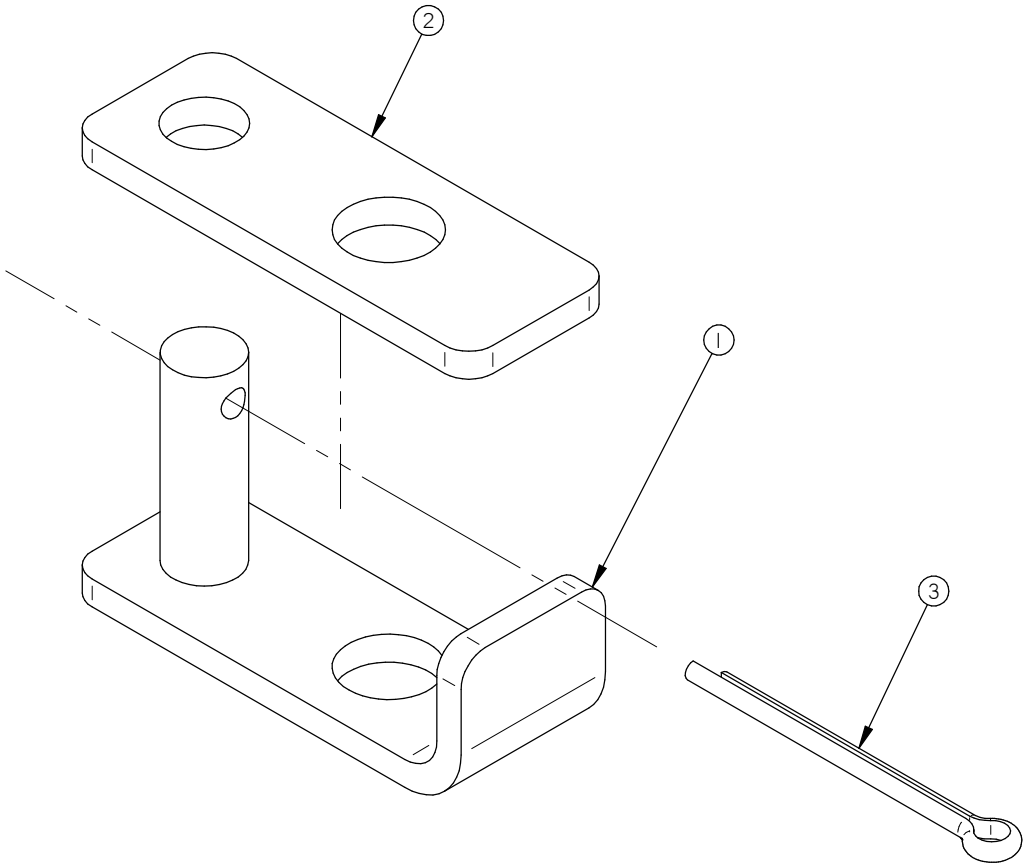
DATE

NO. **004A3968**

LET.	MODIFICATION	DATE	INT.
B	AJOUT 420A ET 650A	14-08-04	SBU
A	AJOUTER 620A	13-01-23	J.G.

004A3937

ITEM	PART #	DESCRIPTION	QT.
1	004A3935	SHACKLE PRE-ASS'Y	1
2	001A6269	SHACKLE PLATE	1
3	056-0118	COTTER PIN 3/32" x 1" S/S	1



MACHINE	QTY
650A	8
620A	4
600A	4
420A	2

MACHINE: **VACUUMS**

PART: **SHACKLE 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

CNC

DEPT. **M-(M)**

QTY. **LISTE**

MAT.

DWG BY **J.G.**

DATE **12-11-06**

APP. BY

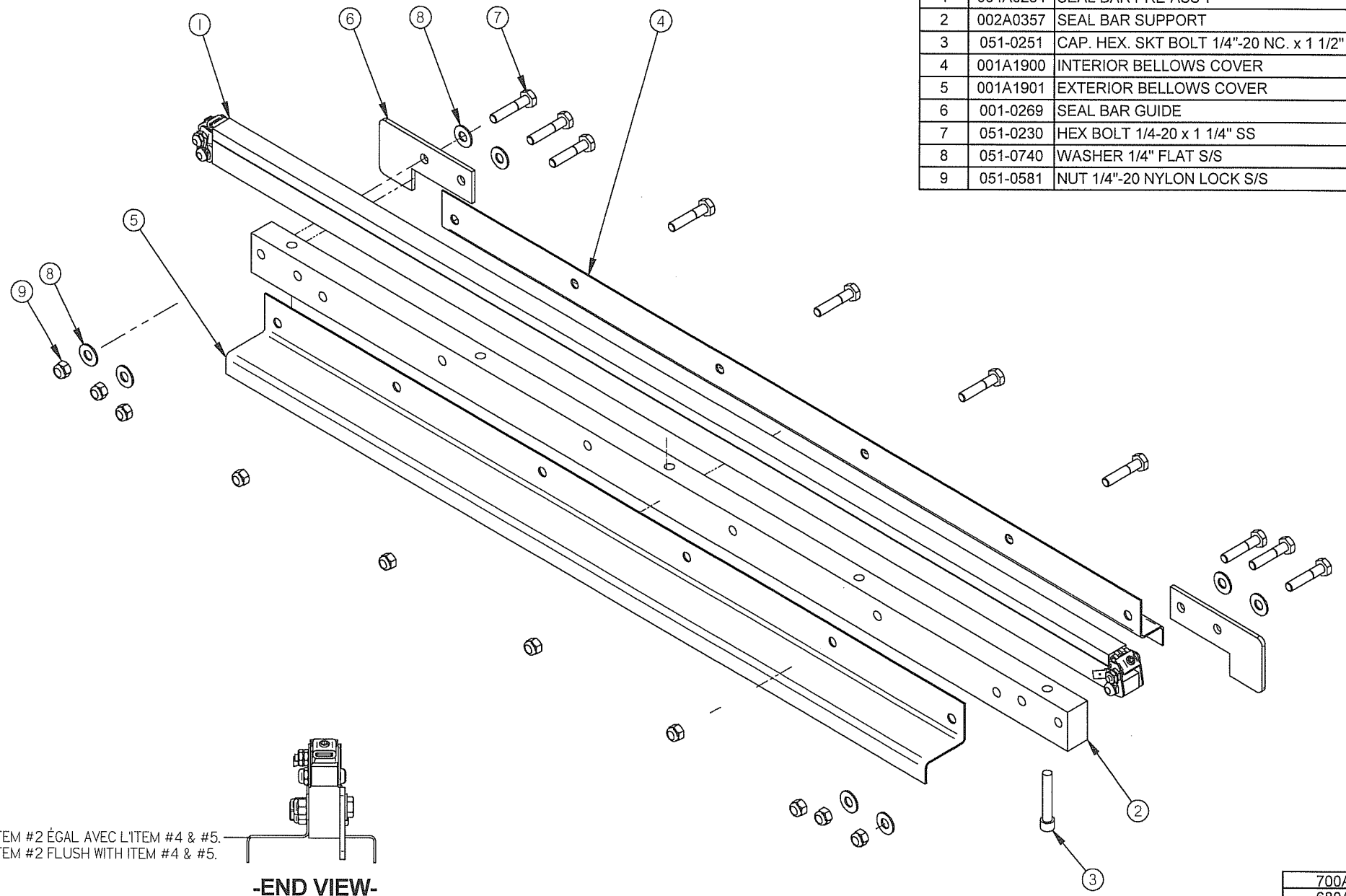
DATE

NO. **004A3937**

LET.	MODIFICATION	DATE	INT.
B	AJOUT 420A ET 650A	14-08-04	SBU
A	AJOUTER 620A	13-01-23	J.G.

005C0547

ITEM	PART #	DESCRIPTION	QT.
1	004A0254	SEAL BAR PRE-ASS'Y	1
2	002A0357	SEAL BAR SUPPORT	1
3	051-0251	CAP. HEX. SKT BOLT 1/4"-20 NC. x 1 1/2"	5
4	001A1900	INTERIOR BELLOWS COVER	1
5	001A1901	EXTERIOR BELLOWS COVER	1
6	001-0269	SEAL BAR GUIDE	2
7	051-0230	HEX BOLT 1/4-20 x 1 1/4" SS	10
8	051-0740	WASHER 1/4" FLAT S/S	8
9	051-0581	NUT 1/4"-20 NYLON LOCK S/S	10



-ITEM #2 ÉGAL AVEC L'ITEM #4 & #5.
-ITEM #2 FLUSH WITH ITEM #4 & #5.

-END VIEW-

-TWIN SEAL OPTION-

MACHINE	QTY
700A	4
680A	4
650A	4

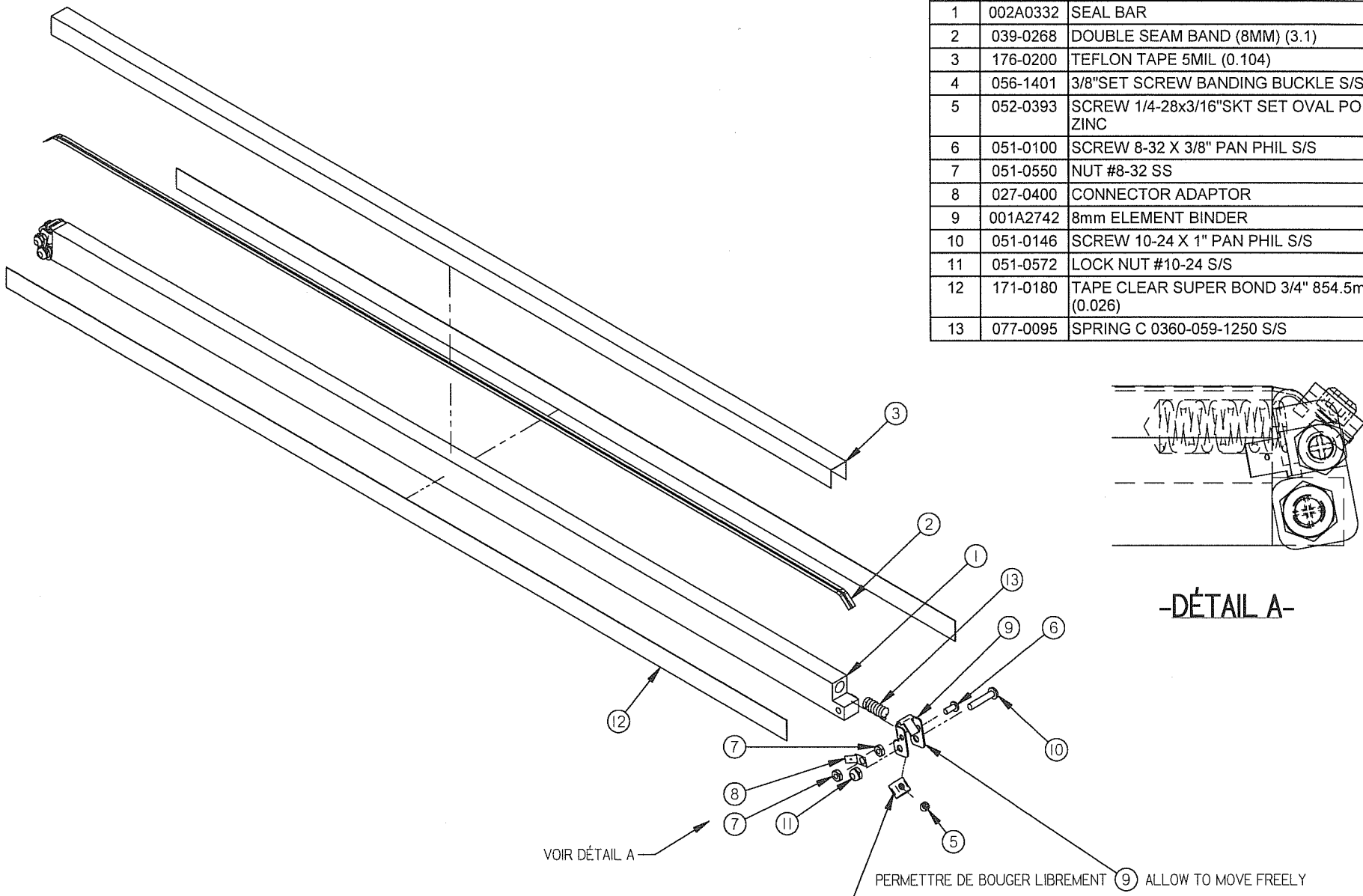
MACHINE: 650A, 680A & 700A
PART: SEAL BAR ASS'Y W/SUPPORT
ITEM:
MAT.:
CNC:
DWG BY: CF
APP. BY:
DEPT. TOL. | METRIC | INCH
USINAGE | ± 0.1 | ± 0.004"
TOLERIE | ± 0.5 | ± 0.020"
SOUDAGE | ± 0.5 | ± 0.020"
N.T.S.
DATE: 12-04-12
DATE:
DEPT.: M-I-(M)
QTY: LIST
NO.: 005C0547

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

LET.	MODIFICATION	DATE	INT.
G	REDRAWN / REMOVED WIRE DUCT	12-04-12	CF

004A0254

ITEM	PART #	DESCRIPTION	QT.
1	002A0332	SEAL BAR	1
2	039-0268	DOUBLE SEAM BAND (8MM) (3.1)	1
3	176-0200	TEFLON TAPE 5MIL (0.104)	1
4	056-1401	3/8"SET SCREW BANDING BUCKLE S/S	2
5	052-0393	SCREW 1/4-28x3/16"SKT SET OVAL POINT ZINC	2
6	051-0100	SCREW 8-32 X 3/8" PAN PHIL S/S	2
7	051-0550	NUT #8-32 SS	4
8	027-0400	CONNECTOR ADAPTOR	2
9	001A2742	8mm ELEMENT BINDER	2
10	051-0146	SCREW 10-24 X 1" PAN PHIL S/S	2
11	051-0572	LOCK NUT #10-24 S/S	2
12	171-0180	TAPE CLEAR SUPER BOND 3/4" 854.5mm (0.026)	2
13	077-0095	SPRING C 0360-059-1250 S/S	2



-DÉTAIL A-

-TWIN SEAL OPTION-

MACHINE	QTY
700A	4
680A	4
650A	4
580A	2

LET.	MODIFICATION	DATE	INT.
F	MODIF. A-453 AJOUTER 077-0095	10-06-01	J.G.
E	ADDED 052-0393	06-04-19	M.A.
D	REDRAWN	06-01-16	M.A.

MACHINE: 580A, 650A, 680A & 700A

PART: SEAL BAR PRE-ASS'Y

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

N.T.S.

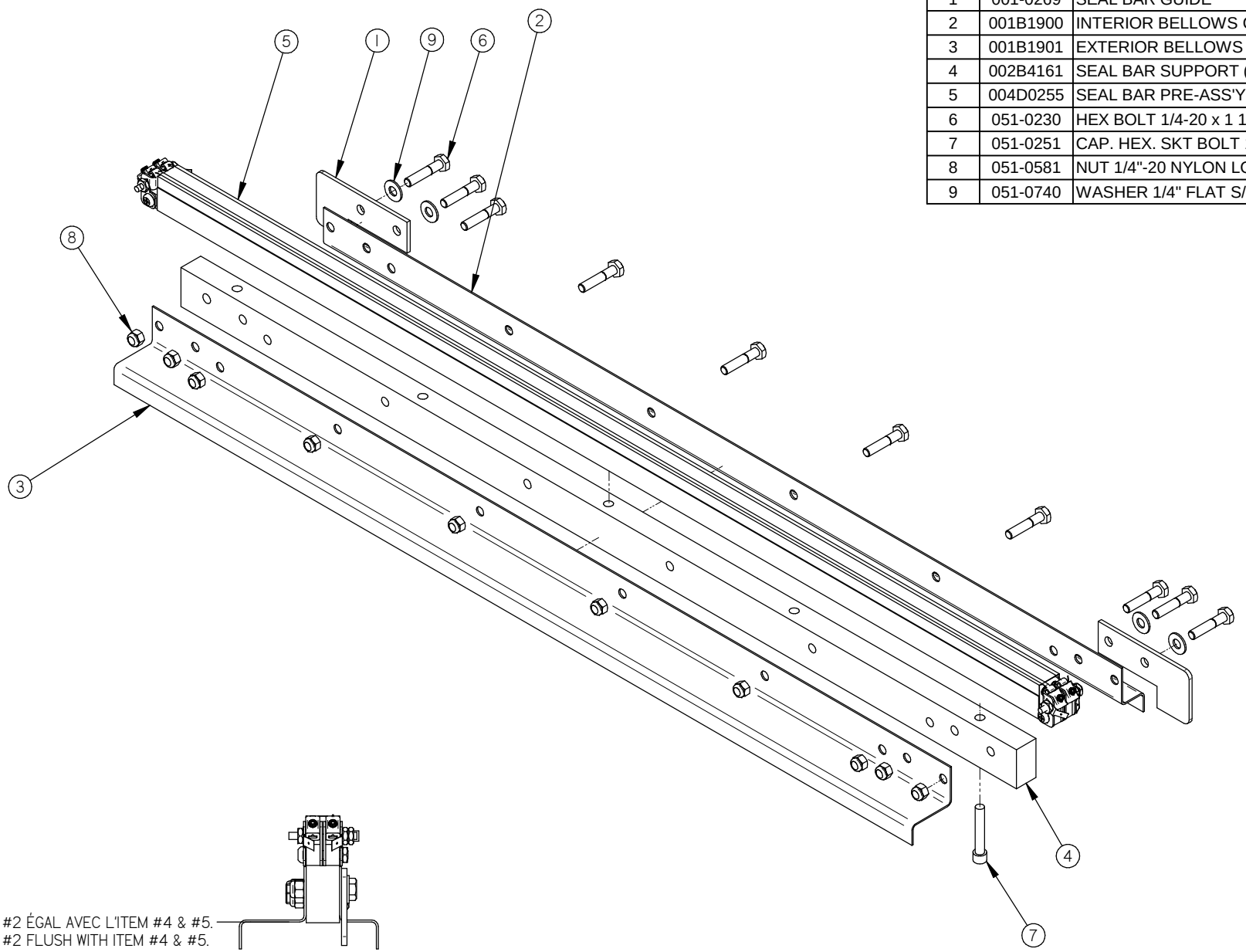
SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

ITEM | CNC | DEPT. M-(M)-I | QTY LISTE

MAT. | DWG BY M.A.L. | DATE 06-01-16 | APP. BY | DATE 10-09-19 | NO. 004A0254

005F0548

ITEM	PART #	DESCRIPTION	QT.
1	001-0269	SEAL BAR GUIDE	2
2	001B1900	INTERIOR BELLOWS COVER	1
3	001B1901	EXTERIOR BELLOWS COVER	1
4	002B4161	SEAL BAR SUPPORT (ECO)	1
5	004D0255	SEAL BAR PRE-ASS'Y	1
6	051-0230	HEX BOLT 1/4-20 x 1 1/4" SS	10
7	051-0251	CAP. HEX. SKT BOLT 1/4"-20 NC. x 1 1/2"	5
8	051-0581	NUT 1/4"-20 NYLON LOCK S/S	10
9	051-0740	WASHER 1/4" FLAT S/S	4



-ITEM #2 ÉGAL AVEC L'ITEM #4 & #5.
-ITEM #2 FLUSH WITH ITEM #4 & #5.

-END VIEW-

-BAG CUT OPTION-

MACHINE	QTY
700A	4
680A	4
650A	4

MACHINE: **650A, 680A & 700A**

PART: **SEAL BAR ASS'Y W/SUPPORT**

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 | CNC | DEPT. **M-I-(M)** | QTY. **LISTE**

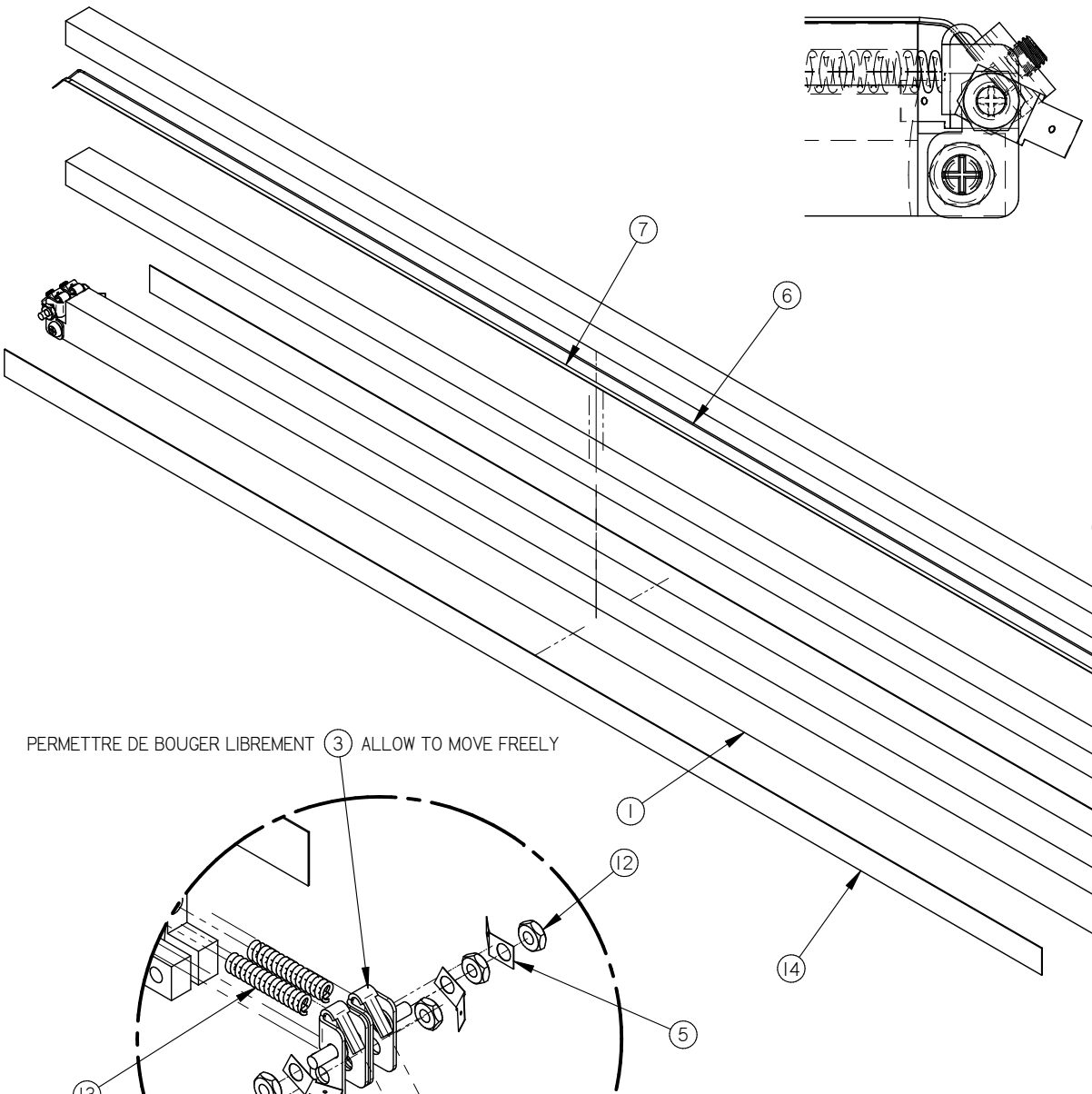
MAT. | DWG BY **S.L.** | DATE **14-02-12** | NO. **005F0548**

APP. BY | DATE

LET.	MODIFICATION	DATE	INT.

004D0255

ITEM	PART #	DESCRIPTION	QT.
1	002A4171	SEAL BAR	1
2	002A4172	BANDING BUCKLE	4
3	005A1443	ELEMENT BINDER RIGHT	2
4	005A1444	ELEMENT BINDER LEFT	2
5	027-0400	CONNECTOR ADAPTOR	6
6	039-02115	ROUND CUT-OFF ELEMENT 0.9MM	1
7	039-0222	TAPERED BAND 3MM X 0.3MM	1
8	051-0146	SCREW 10-24 X 1" PAN PHIL S/S	1
9	051-0146	SCREW 10-24 X 1" PAN PHIL S/S	1
10	051-01752	SET SCREW 10-32 SS 3/16"	2
11	051-01752	SET SCREW 10-32 SS 3/16"	2
12	051-0550	NUT #8-32 SS	8
13	077-0014	SPRING C0240-040-1250 SS COMP.	4
14	171-0180	TAPE CLEAR SUPER BOND 3/4" 854.5mm (0.026)	2
15	176-0200	TEFLON TAPE, 5MIL	1
16	176-0203	TEFLON TAPE UNCOATED 5MIL (0.78)	1



DETAIL A

-BAG CUT (ECO) -

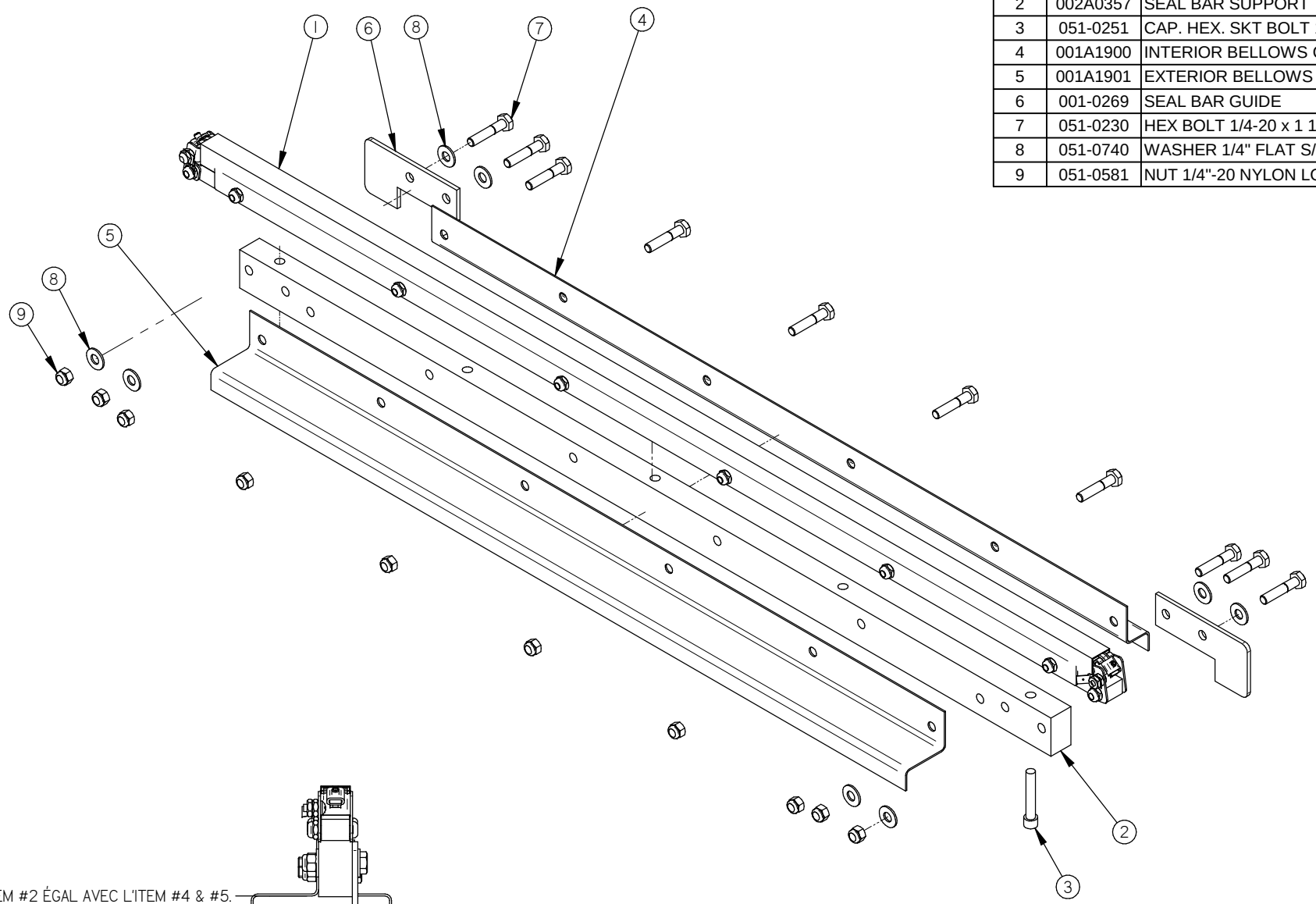
MACHINE	QTY
700A	4
680A	4
650A	4

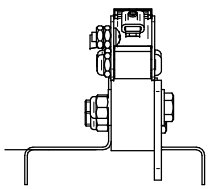
MACHINE: 650A , 680A & 700A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004", TOLERIE ± 0.5 ± 0.020", SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: SEAL BAR PRE-ASS'Y	N.T.S.		
ITEM	CNC	DEPT. M-(M)-I	QTY. LISTE
MAT.	DWG BY S.L. / APP. BY	DATE 14-02-12 / DATE	NO. 004D0255

LET.	MODIFICATION	DATE	INT.

005D0549

ITEM	PART #	DESCRIPTION	QT.
1	004B0256	SEAL BAR PRE-ASS'Y	1
2	002A0357	SEAL BAR SUPPORT	1
3	051-0251	CAP. HEX. SKT BOLT 1/4"-20 NC. x 1 1/2"	5
4	001A1900	INTERIOR BELLOWS COVER	1
5	001A1901	EXTERIOR BELLOWS COVER	1
6	001-0269	SEAL BAR GUIDE	2
7	051-0230	HEX BOLT 1/4-20 x 1 1/4" SS	10
8	051-0740	WASHER 1/4" FLAT S/S	8
9	051-0581	NUT 1/4"-20 NYLON LOCK S/S	10





-ITEM #2 ÉGAL AVEC L'ITEM #4 & #5.
-ITEM #2 FLUSH WITH ITEM #4 & #5.

-END VIEW-

-TOP & BOTTOM SEALING OPTION-

MACHINE	QTY
700A	4
680A	4
650A	4

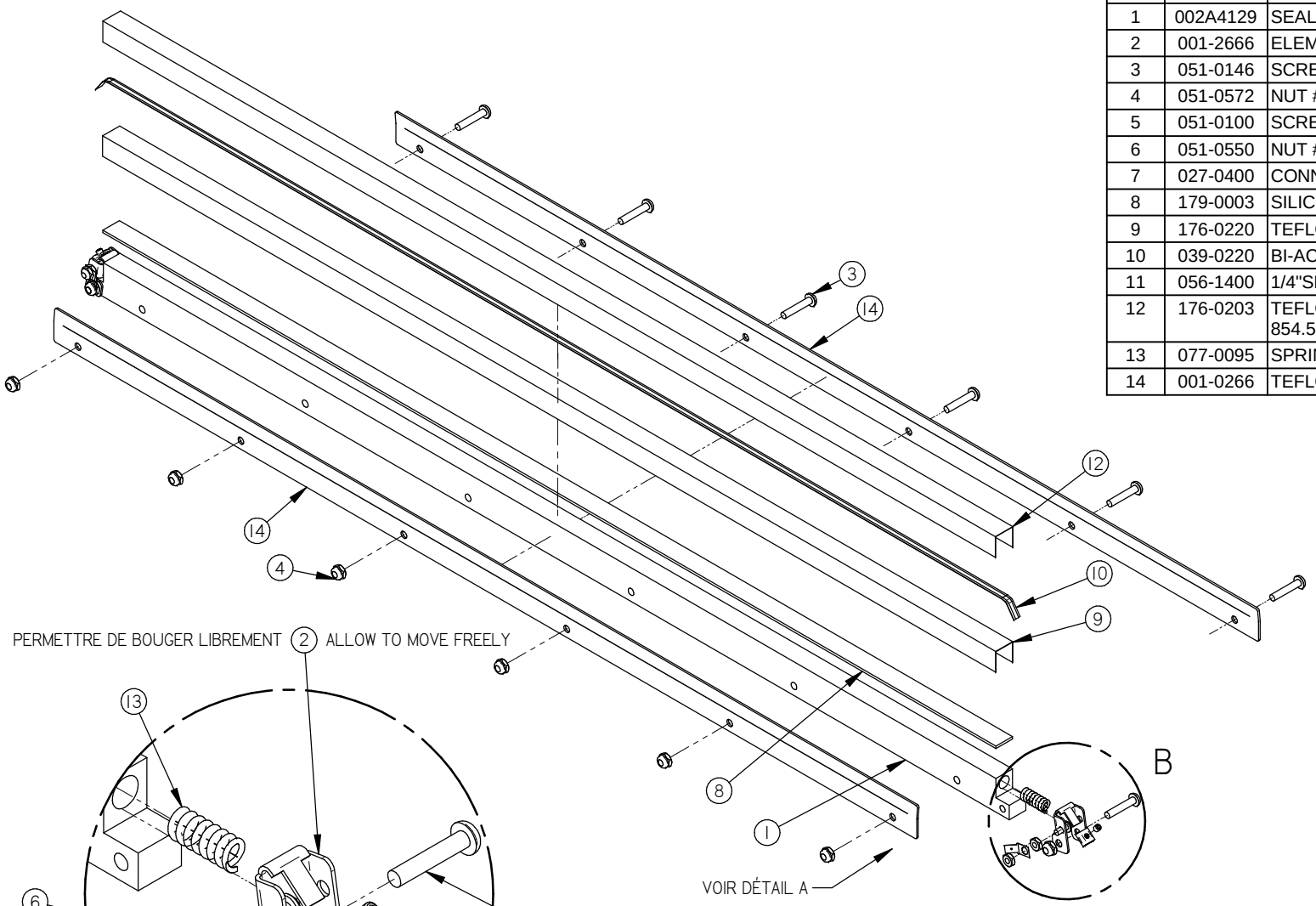
MACHINE: 650A, 680A & 700A	DEPT. TOL	METRIC	INCH
	USINAGE	± 0.1	± 0.004"
	TOLERIE	± 0.5	± 0.020"
	SOUDAGE	± 0.5	± 0.020"
PART: SEAL BAR ASS'Y W/SUPPORT	N.T.S.		
ITEM:	CNC:	DEPT. M-I-(M)	QTY. LIST
MAT.:	DWG BY SBU	DATE 13-08-12	NO. 005D0549
	APP. BY	DATE	

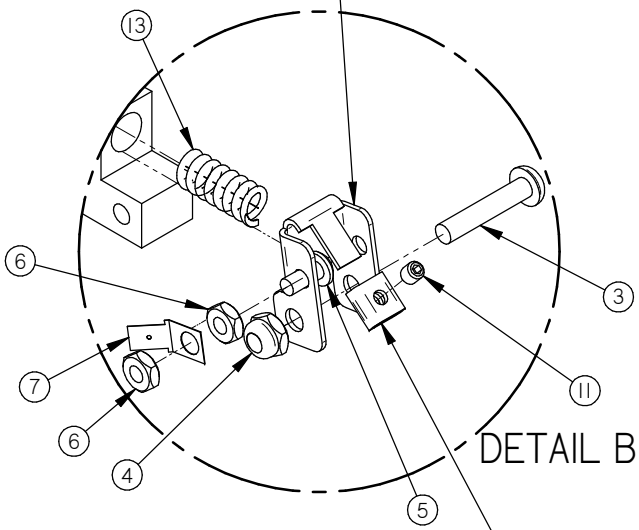
SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

LET.	MODIFICATION	DATE	INT.
I	004B0256 WAS 004A0256	13-08-12	SBU

004B0256

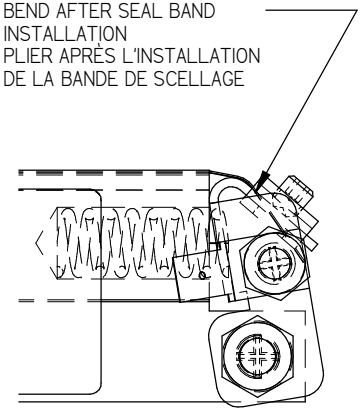
ITEM	PART #	DESCRIPTION	QT.
1	002A4129	SEAL BAR	1
2	001-2666	ELEMENT BINDER	2
3	051-0146	SCREW 10-24 X 1" PAN PHIL S/S	8
4	051-0572	NUT #10-24 NYLON LOCK S/S	8
5	051-0100	SCREW 8-32 X 3/8" PAN PHIL S/S	2
6	051-0550	NUT #8-32 SS	4
7	027-0400	CONNECTOR ADAPTOR	2
8	179-0003	SILICONE 2mm x 15mm (0.9)	1
9	176-0220	TEFLON TAPE, PRESS SENSITIVE 2" (0.104)	1
10	039-0220	BI-ACTIVE SEALING ELEMENT (0.09)	1
11	056-1400	1/4"SET SCREW BANDING BUCKLE S/S	2
12	176-0203	TEFLON TAPE, 5MIL UNCOATED ZONE 854.5mm (0.085)	1
13	077-0095	SPRING C 0360-059-1250 S/S	2
14	001-0266	TEFLON HOLD DOWN PLATE	2





DETAIL B

INSTALLER CONTRE L'ENCOCHE DE L'ITEM #2 (11) INSTALL AGAINST NOTCH OF ITEM #2



-DÉTAIL A-

-TOP & BOTTOM SEALING OPTION-

MACHINE	QTY
700A	4
680A	4
650A	4
580A	2

MACHINE: **580A, 650A, 680A & 700A**

PART: **SEAL BAR PRE-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 | CNC | DEPT. **M-(M)-I** | QTY. **LISTE**

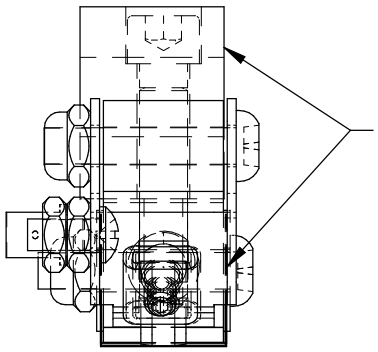
MAT. | DWG BY **SBU** | DATE **13-08-12** | NO. **004B0256**

APP. BY | DATE

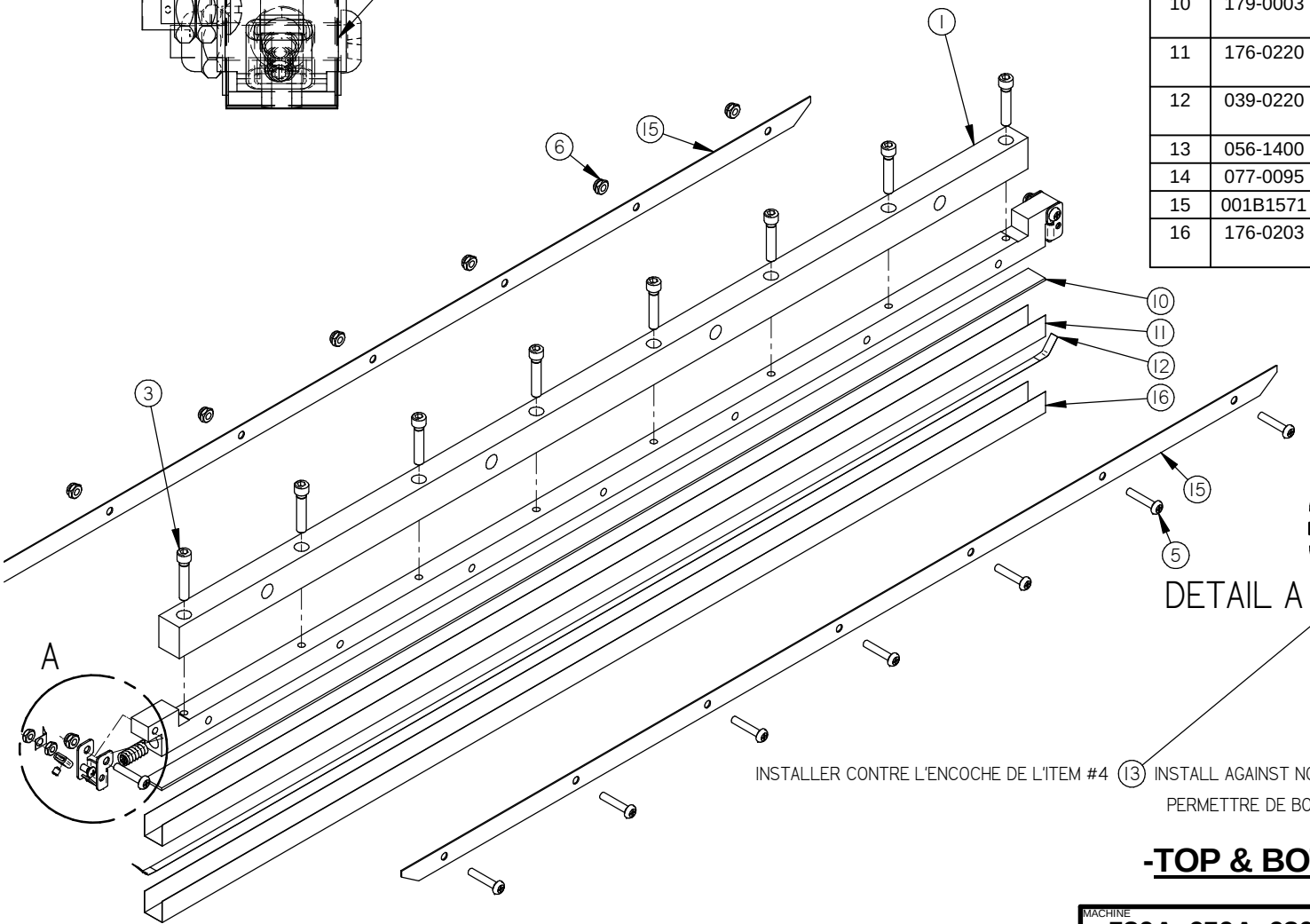
LET.	MODIFICATION	DATE	INT.
G	AJOUT PINCE TEFLON, CHANGE TEFLON	13-08-12	SBU

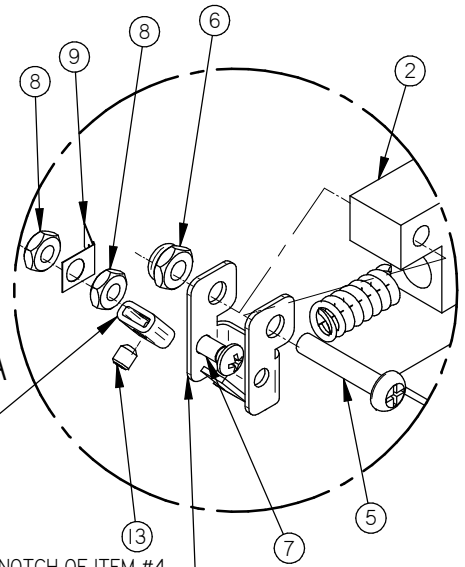
005C0437

ITEM	PART #	DESCRIPTION	QT.
1	002B0378	UPPER SEAL BAR SUPPORT	1
2	002C0396	UPPER SEAL BAR	1
3	051-0232	SCREW 1/4-20x 1-1/4"SKT CAP SS	8
4	001-2666	ELEMENT BINDER	2
5	051-0146	SCREW 10-24 X 1" PAN PHIL S/S	9
6	051-0572	NUT #10-24 NYLON LOCK S/S	9
7	051-0104	SCREW 8-32 x 3/8" RND PHIL S/S	2
8	051-0550	NUT #8-32 SS	4
9	027-0400	CONNECTOR ADAPTOR	2
10	179-0003	SILICONE 2mm x 15mm ADHESIVE 828mm (0.83)	1
11	176-0220	TEFLON TAPE 0.010", PRESS SENSITIVE 2" 828mm (2.72)	1
12	039-0220	BI-ACTIVE SEALING ELEMENT (6mm) 871mm (0.087)	1
13	056-1400	1/4"SET SCREW BANDING BUCKLE S/S	2
14	077-0095	SPRING C 0360-059-1250 S/S	2
15	001B1571	UPPER TEFLON HOLDER	2
16	176-0203	TEFLON TAPE UNCOATED 0.005", 828mm (2.72)	1



CE COTÉ DE LA BARRE DOIT ÊTRE ÉGAL AU SUPPORT
THIS SIDE OF SEAL BAR TO FIT FLUSH WITH SUPPORT





DETAIL A

INSTALLER CONTRE L'ENCOCHE DE L'ITEM #4 (13) INSTALL AGAINST NOTCH OF ITEM #4

PERMETTRE DE BOUGER LIBREMENT (4) ALLOW TO MOVE FREELY

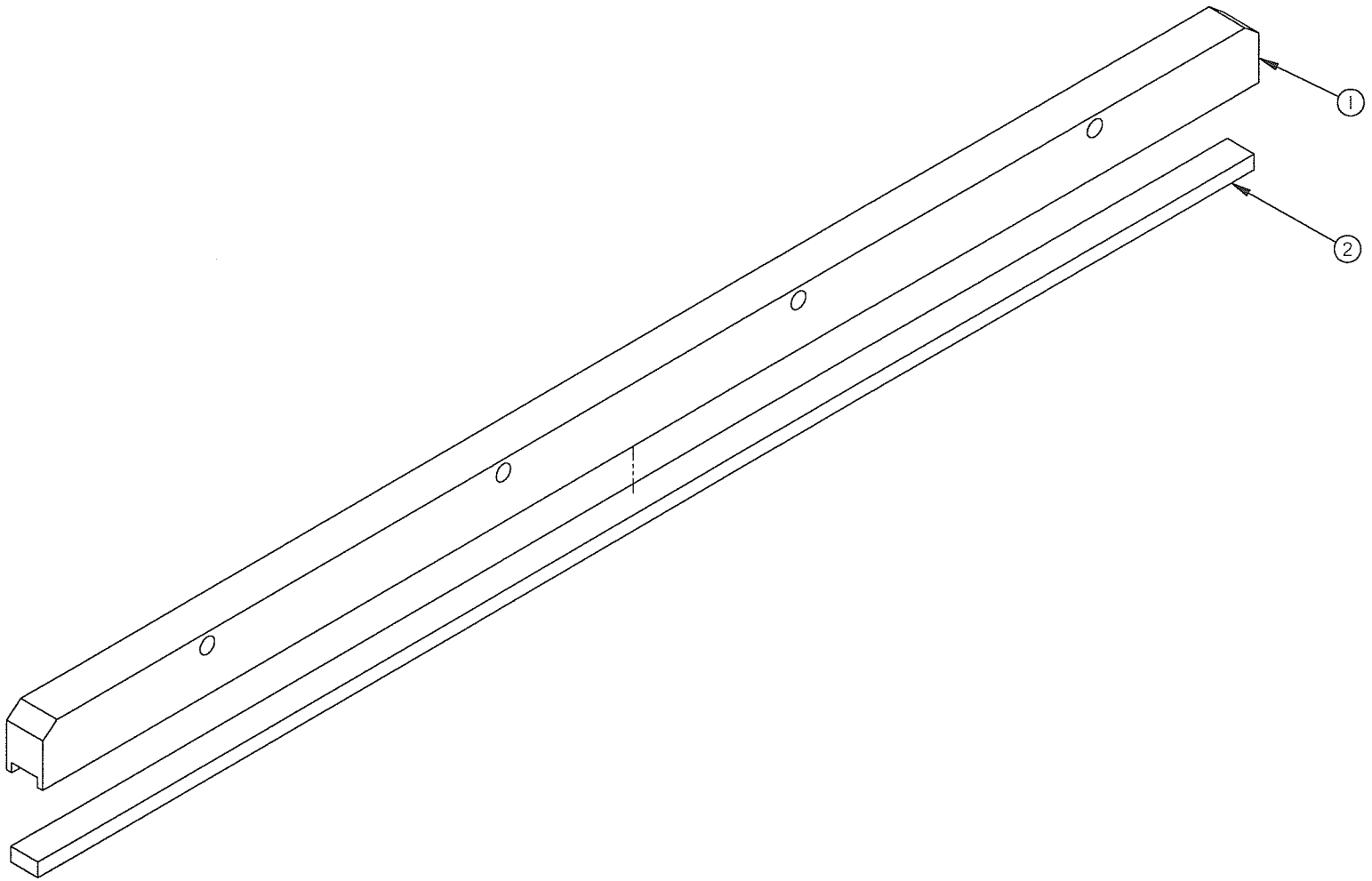
-TOP & BOTTOM SEALING OPTION-

LET.	MODIFICATION	DATE	INT.
K	AJOUT PINCE TEFLON, CHANGE TEFLON	13-08-12	SBU

MACHINE: 580A, 650A, 680A & 700A	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004" · TOLERIE ± 0.5 ± 0.020" · SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: UPPER SEAL BAR ASS'Y W/SUPPORT	N.T.S.		
ITEM	CNC	DEPT. M-(M)-I	QTY. 2
MAT.	DWG BY SBU · APP. BY	DATE 13-08-12 · DATE	NO. 005C0437

004B0207

ITEM	PART #	DESCRIPTION	QT.
1	002B0364	UPPER SEAL BAR SUPPORT	1
2	008-0374	UPPER SEAL BAR RUBBER	1



K	REDESSINE VOIR AUSSI 004A2555, 004A2556 & 004A2561	08-04-30	J.G.
LET.	MODIFICATION	DATE	INT.

MACHINE
580A, 650A, 680A & 700A

PART
UPPER SEAL BAR ASSEMBLY

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

CNC

DEPT. **M-I**

QTY. **2**

MAT.

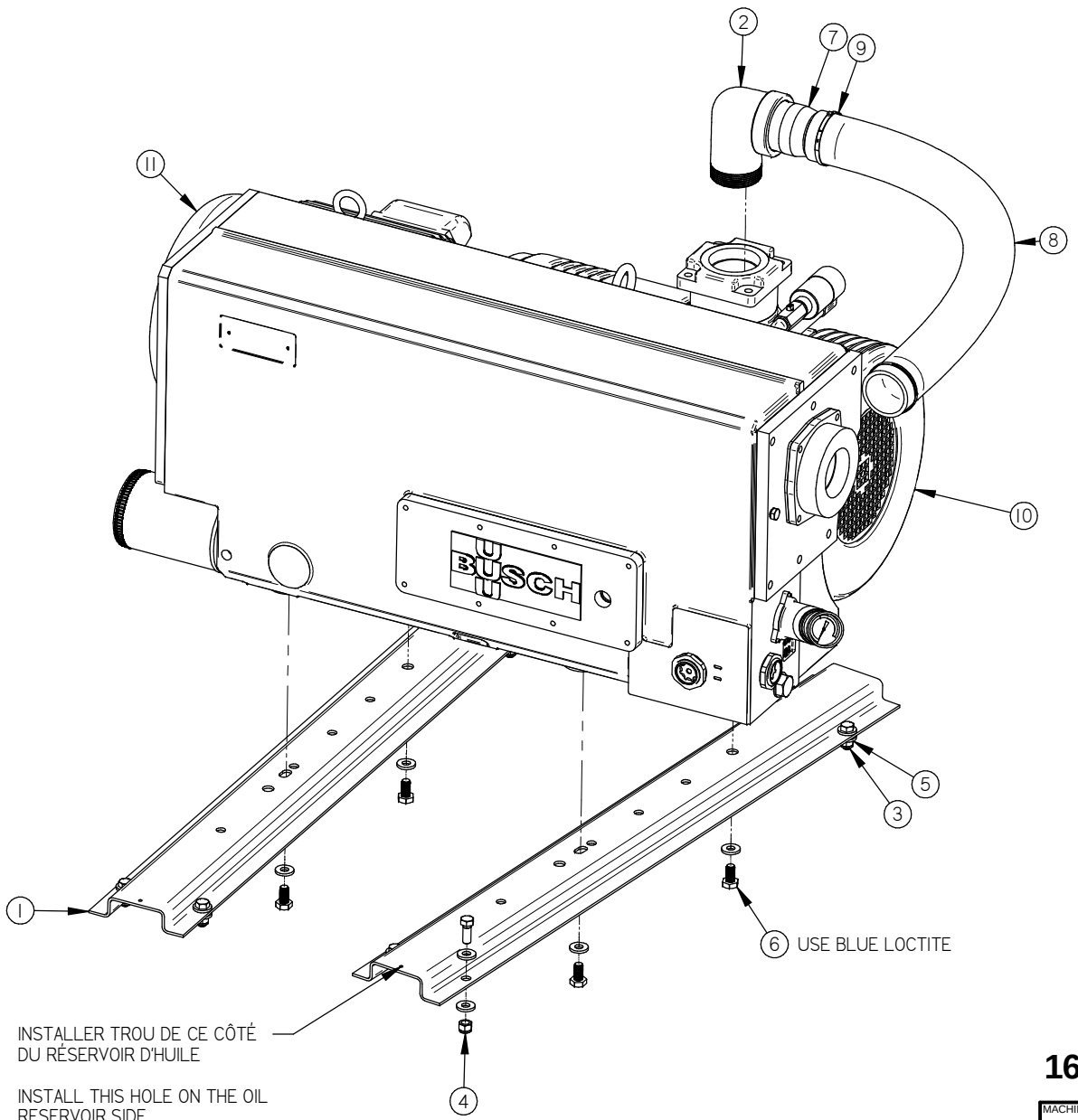
DWG BY **J.G.** DATE **08-04-30**

APP. BY DATE 08-05-07

NO **004B0207**

005A1535

ITEM	PART #	DESCRIPTION	QT.
1	001B6563	PUMP SUPPORT	2
2	004A4240	BELLOWS ELBOW CONNECTOR ASSY	1
3	051-0360	BOLT 3/8"-16nc. X 1" S/S	8
4	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	8
5	051-0783	WASHER 3/8" FLAT THICK S/S	20
6	051-09931	BOLT M10 X 20MM HEX SS	4
7	100-1250	STRAIGHT 2"MNPT X 2" HOSE BARB SS	1
8	104-0151	HOSE 2"ID VACUUM TIGERFLEX 560MM	1
9	105-0258	EAR CLAMP 2" S/S	2
10	125-0070	BUSCH RA-0165 230-460V/3PH/60HZ	1
11	125-0075	BUSCH RA-0165 575V/3PH/60HZ	1



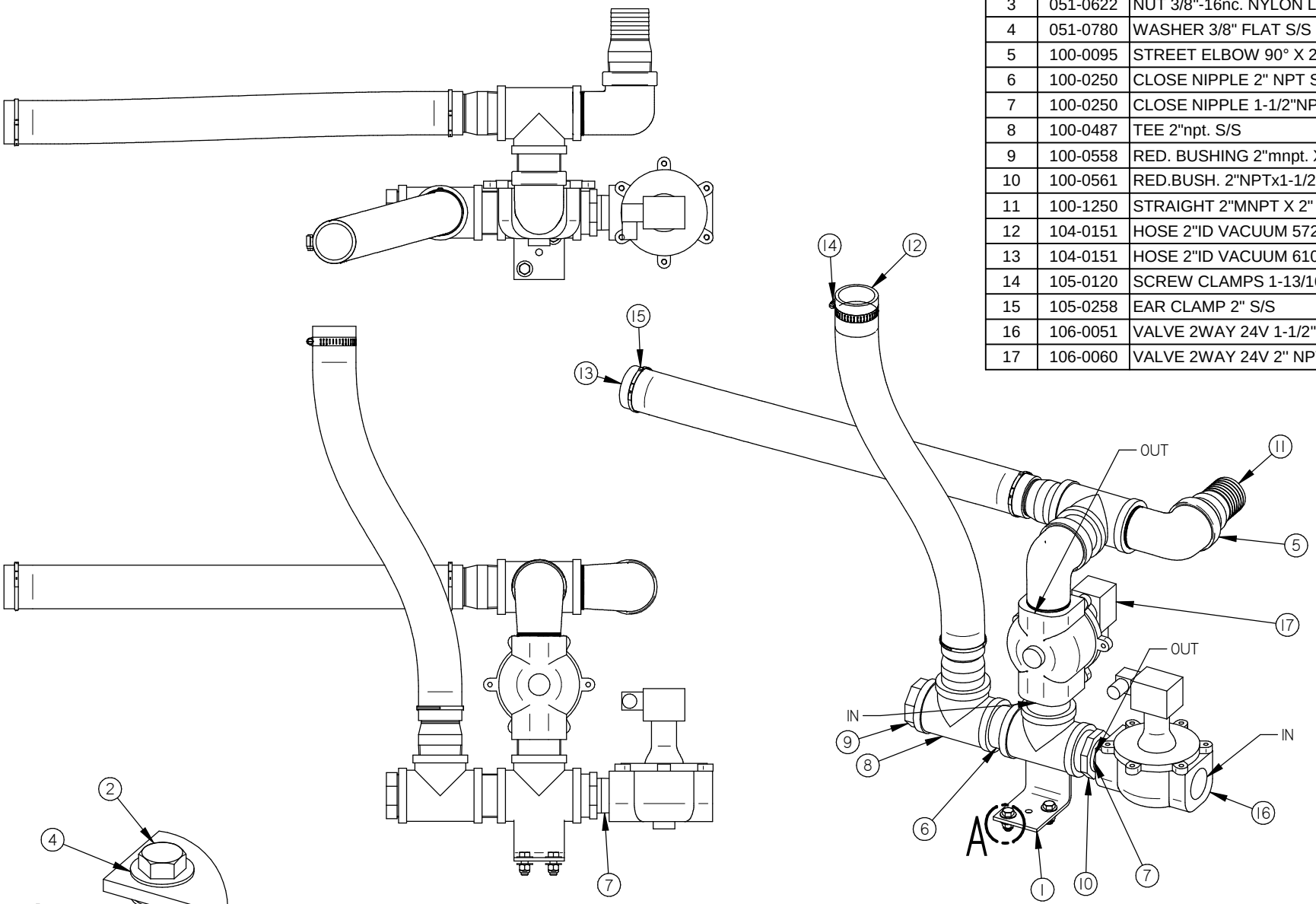
165M³ BUSCH PUMP

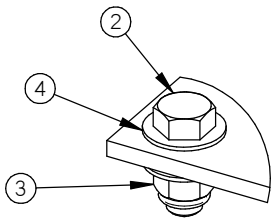
MACHINE	650A	DEPT. TOL	METRIC	INCH	SIPROMAC
		USINAGE	± 0.1	± 0.004"	ST-GERMAIN DE GRANTHAM
		TOLERIE	± 0.5	± 0.020"	QUEBEC CANADA
		SOUDAGE	± 0.5	± 0.020"	
PART	PUMP "BUSCH" 165M³		N.T.S.		
ITEM		CNC		DEPT. M-I	QTY. 1
MAT.		3D DWG BY SBU	DATE 14-10-08	NO. 005A1535	
		2D DWG BY SBU	DATE 14-10-08		

LET.	MODIFICATION	DATE	INT.

005A1522

ITEM	PART #	DESCRIPTION	QT.
1	004-0183	VAC./ATM. VALVE SUPP. PRE-ASS'Y	1
2	051-0360	BOLT 3/8"-16nc. X 1" S/S	2
3	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	2
4	051-0780	WASHER 3/8" FLAT S/S	4
5	100-0095	STREET ELBOW 90° X 2" NPT SS	2
6	100-0250	CLOSE NIPPLE 2" NPT SS	3
7	100-0250	CLOSE NIPPLE 1-1/2"NPT S/S	1
8	100-0487	TEE 2"npt. S/S	2
9	100-0558	RED. BUSHING 2"mnpt. X 1"fnpt S/S	1
10	100-0561	RED.BUSH. 2"NPTx1-1/2"NPT SS	1
11	100-1250	STRAIGHT 2"MNPT X 2" HOSE BARB SS	3
12	104-0151	HOSE 2"ID VACUUM 572MM	1
13	104-0151	HOSE 2"ID VACUUM 610MM	1
14	105-0120	SCREW CLAMPS 1-13/16" TO 2-3/4" ALL S/S	1
15	105-0258	EAR CLAMP 2" S/S	3
16	106-0051	VALVE 2WAY 24V 1-1/2"NPT60Hz	1
17	106-0060	VALVE 2WAY 24V 2" NPT(B80) 60HZ	1





DETAIL A

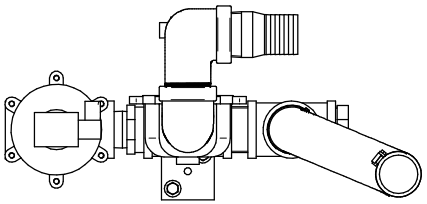
-OPTION - 165M³, 255M³ & 305M³ PUMP

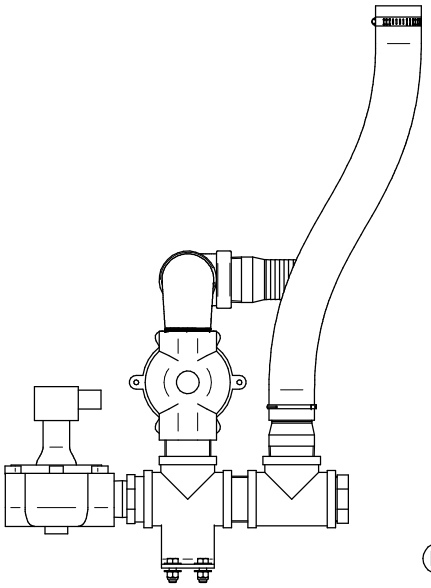
LET.	MODIFICATION	DATE	INT.

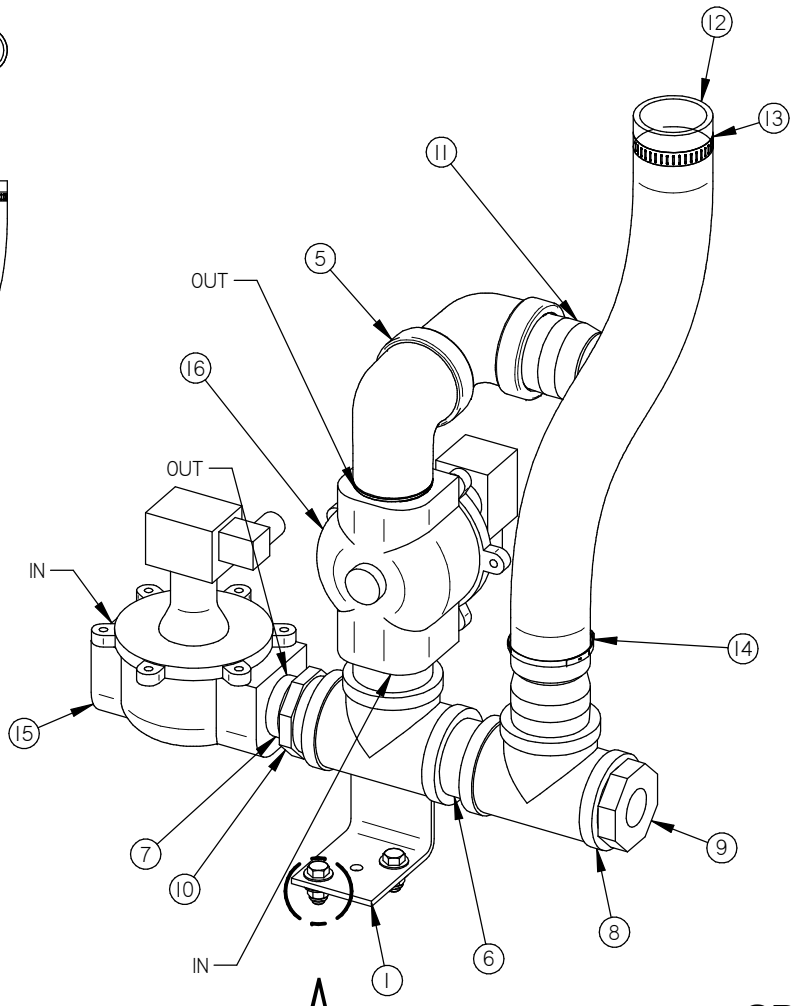
MACHINE: VACUUM	DEPT. TOL / METRIC / INCH: USINAGE ± 0.1 ± 0.004"; TOLERIE ± 0.5 ± 0.020"; SOUDAGE ± 0.5 ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: VACUUM/ATMOSPHERE VALVE ASSY	N.T.S.		
ITEM	CNC	DEPT. M	QTY. 1
MAT.	DWG BY SBU / APP. BY	DATE 13-09-18 / DATE	NO. 005A1522

005A1521

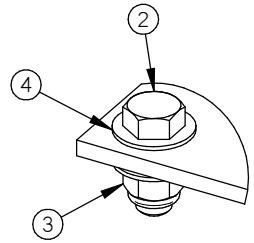
ITEM	PART #	DESCRIPTION	QT.
1	004-0183	VAC./ATM. VALVE SUPP. PRE-ASS'Y	1
2	051-0360	BOLT 3/8"-16nc. X 1" S/S	2
3	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	2
4	051-0780	WASHER 3/8" FLAT S/S	4
5	100-0095	STREET ELBOW 90° X 2" NPT SS	2
6	100-0250	CLOSE NIPPLE 2" NPT SS	2
7	100-0250	CLOSE NIPPLE 1-1/2"NPT S/S	1
8	100-0487	TEE 2"npt. S/S	1
9	100-0558	RED. BUSHING 2"mnpt. X 1"fnpt S/S	1
10	100-0561	RED.BUSH. 2"NPTx1-1/2"NPT SS	1
11	100-1250	STRAIGHT 2"MNPT X 2" HOSE BARB SS	2
12	104-0151	HOSE 2"ID VACUUM 572MM	1
13	105-0120	SCREW CLAMPS 1-13/16" TO 2-3/4" ALL S/S	1
14	105-0258	EAR CLAMP 2" S/S	1
15	106-0051	VALVE 2WAY 24V 1-1/2"NPT60Hz	1
16	106-0060	VALVE 2WAY 24V 2" NPT(B80) 60HZ	1







A



DETAIL A

-OPTION - 165M³, 255M³ & 305M³ PUMP

LET.	MODIFICATION	DATE	INT.

MACHINE: **VACUUM**

PART: **VACUUM/ATMOSPHERE VALVE ASSY**

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: _____ CNC: _____ DEPT. **M** QTY. **1**

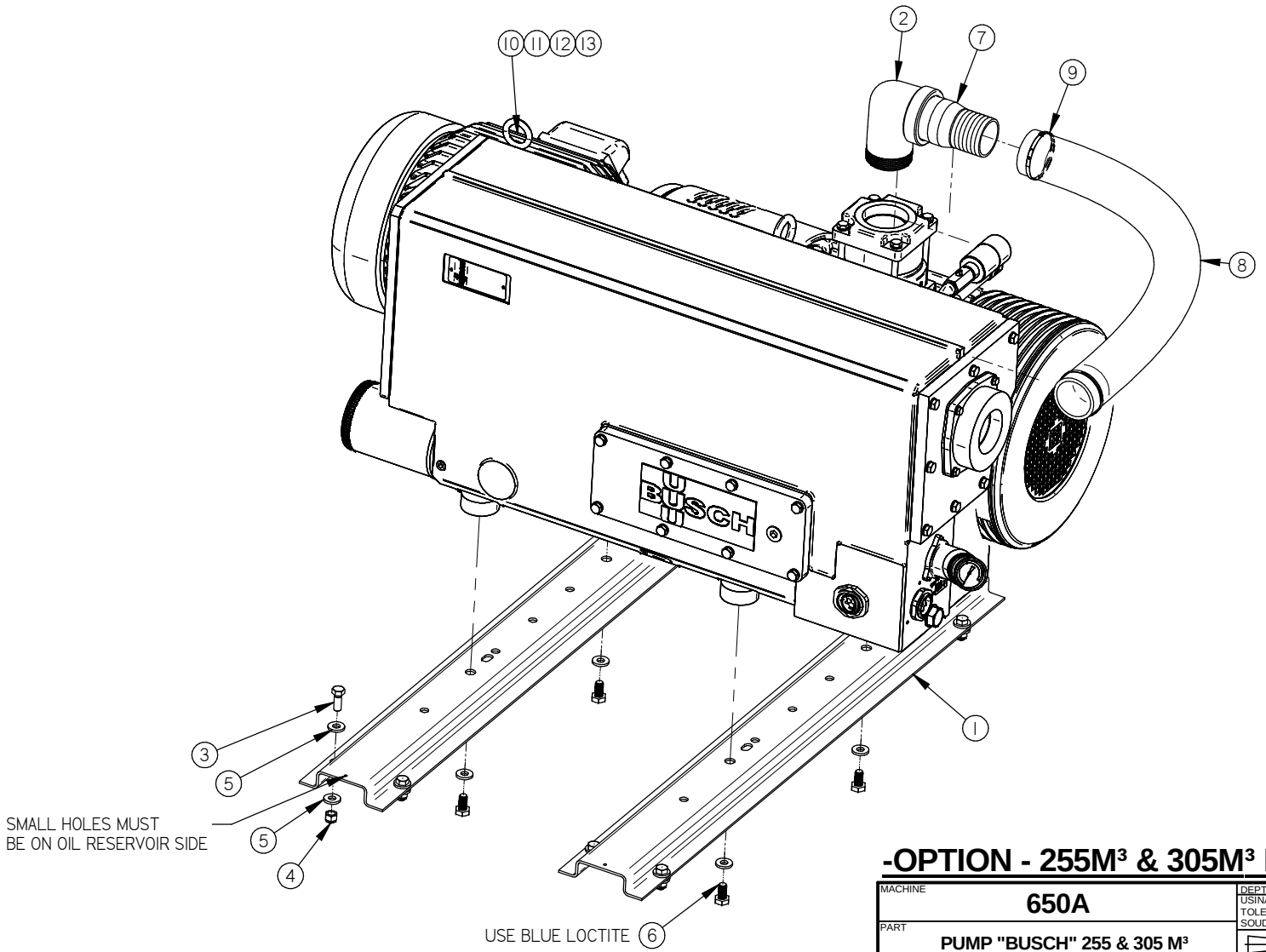
MAT.: _____ DWG BY **SBU** DATE **13-09-18** NO. **005A1521**

APP. BY: _____ DATE: _____

005A1520

ITEM	PART #	DESCRIPTION	QT.
8	104-0151	HOSE 2"ID VACUUM TIGERFLEX 560MM	1
9	105-0258	EAR CLAMP 2" S/S	2
10	125-0080	BUSCH RA-0255 230-460V/3PH/60HZ	1
11	125-0085	BUSCH RA-0255 575V/3PH/60HZ	1
12	125-0087	BUSCH RA-0305 230-460V/3PH/60HZ	1
13	125-0088	BUSCH RA-0305 575V/3PH/60HZ	1

ITEM	PART #	DESCRIPTION	QT.
1	001B6563	PUMP SUPPORT	2
2	004A4240	BELLOWS ELBOW CONNECTOR ASSY	1
3	051-0360	BOLT 3/8"-16nc. X 1" S/S	8
4	051-0622	NUT 3/8"-16nc. NYLON LOCK S/S	8
5	051-0783	WASHER 3/8" FLAT THICK S/S	20
6	051-09931	BOLT M10 X 20MM HEX SS	4
7	100-1250	STRAIGHT 2"MNPT X 2" HOSE BARB SS	1



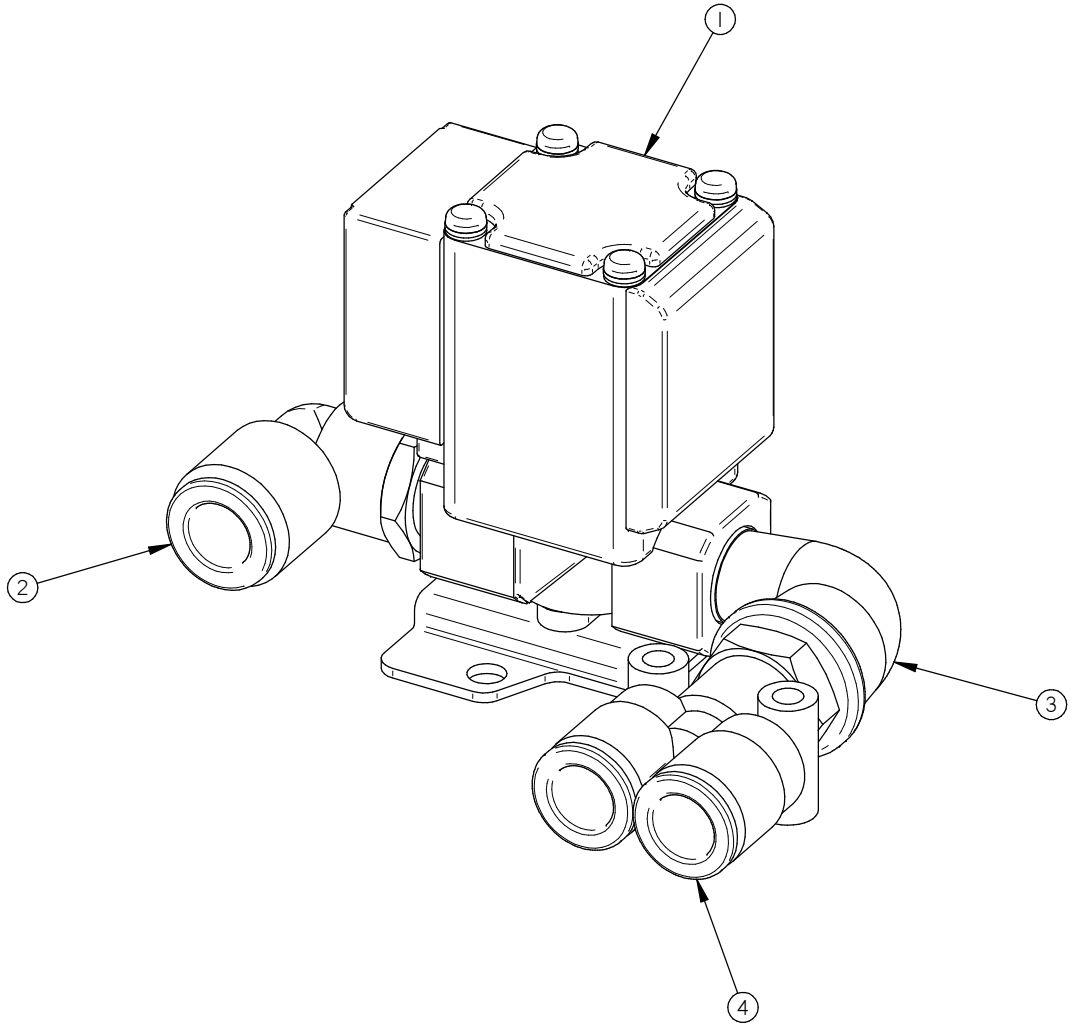
-OPTION - 255M³ & 305M³ PUMP

MACHINE: 650A	DEPT. TOL	METRIC	INCH	SIPROMAC	
	USINAGE	± 0.1	± 0.004"	ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
	TOLERIE	± 0.5	± 0.020"		
	SOUDAGE	± 0.5	± 0.020"		
PART: PUMP "BUSCH" 255 & 305 M³			N.T.S.		
ITEM	CNC			DEPT. M-I	QTY. 1
MAT.	DWG BY SBU		DATE 14-07-16	NO. 005A1520	
	APP. BY		DATE		

LET.	MODIFICATION	DATE	INT.
A	001B6563 WAS 001A6563	14-05-28	SBU

004B4113

ITEM	PART #	DESCRIPTION	QT.
1	106-0010	VALVE 2WAY N.C. 24VAC 1/4" NPT(SMC)	1
2	102-0330	ELBOW 1/4" NPT X 3/8" HOSE QUICK	1
3	100-0065	STREET ELBOW 1/4" NPT SS	1
4	102-0361	Y BRANCH 1/4" MNPT X 3/8" T. QUICK	1



-OPTION - GAS

DOUBLE CHAMBER	2
SINGLE CHAMBER	1
MACHINE	QTY

MACHINE: **VACUUM**

PART: **GAS VALVE ASSEMBLY (OPTION)**

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: _____ CNC: _____ DEPT. **M** QTY. **LISTE**

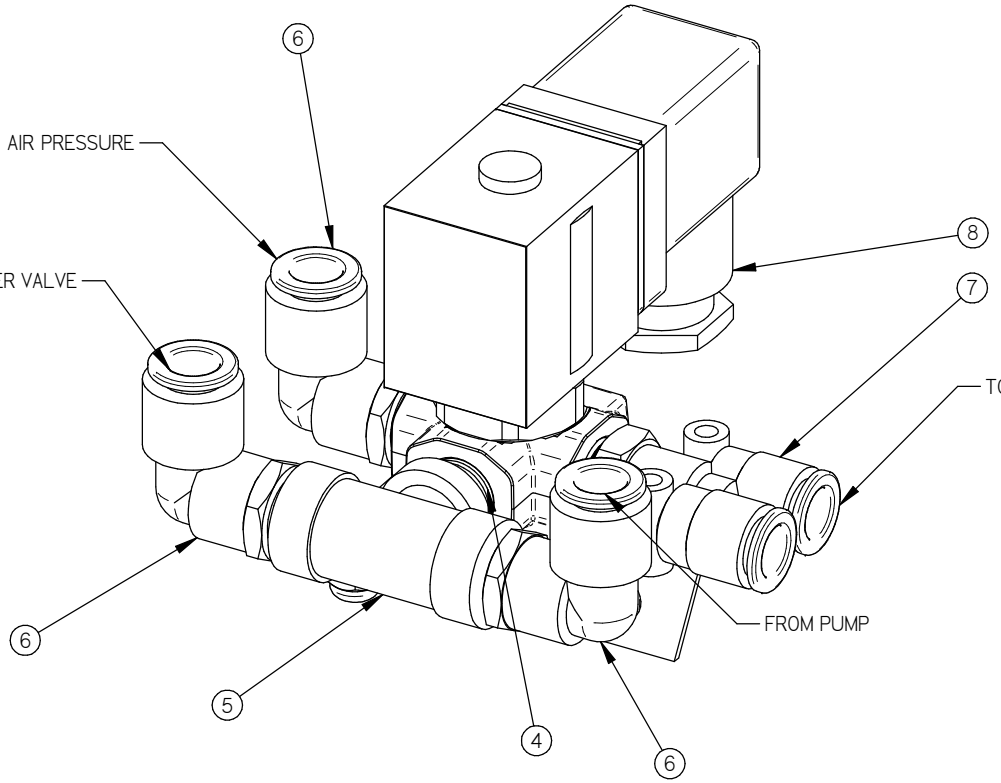
MAT.: _____ DWG BY **SBU** DATE **14-05-27** NO. **004B4113**

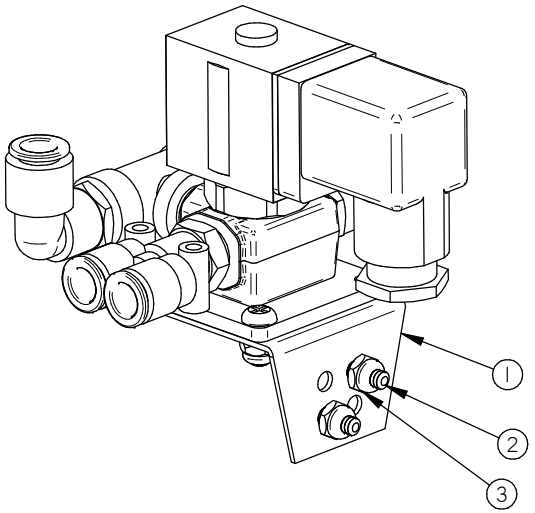
APP. BY: _____ DATE: _____

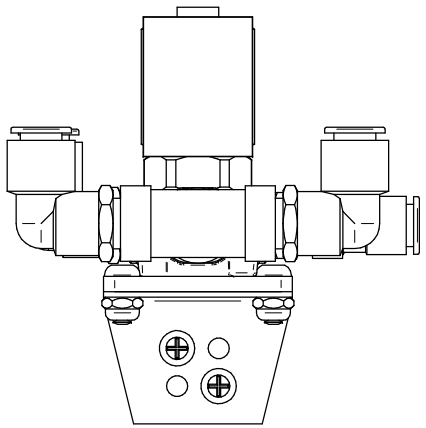
LET.	MODIFICATION	DATE	INT.
A	VALVE UPDATE	14-05-27	SBU

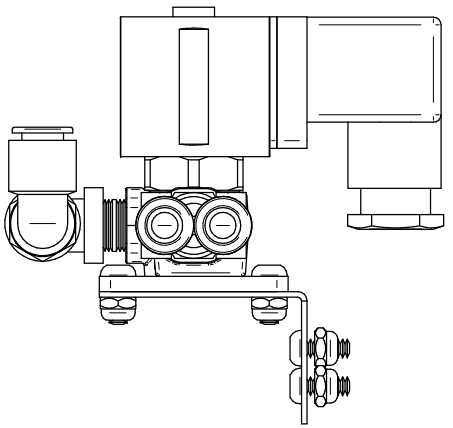
004B4105

ITEM	PART #	DESCRIPTION	QT.
1	001B6779	VALVE SUPPORT BRACKET	1
2	051-0144	SCREW #10-24 N.C 1/2"PAN PHIL. S/S	4
3	051-0572	NUT #10-24 NYLON LOCK S/S	4
4	100-0225	CLOSE NIPPLE 1/4" NPT SS	1
5	100-0463	TEE 1/4" NPT S/S	1
6	102-0330	ELBOW 1/4" NPT X 3/8" HOSE QUICK	3
7	102-0361	Y BRANCH 1/4" MNPT X 3/8" T. QUICK	1
8	106-00701	VALVE 3WAY 24V 1/4"NPT	1









-OPTION - AIR REGULATOR

A	UPDATE VALVE	14-05-27	SBU
LET.	MODIFICATION	DATE	INT.

MACHINE: **VACUUM**

PART: **BELLOWS VALVE ASSY (OPT AIR REG)**

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

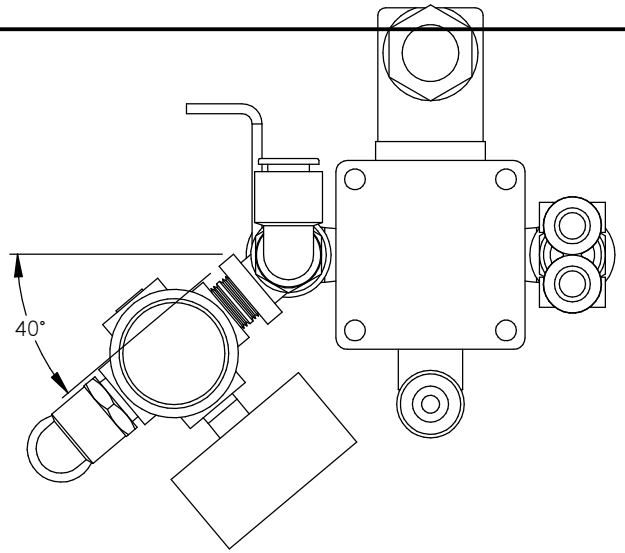
ITEM | CNC | DEPT. **M** | QTY. **1**

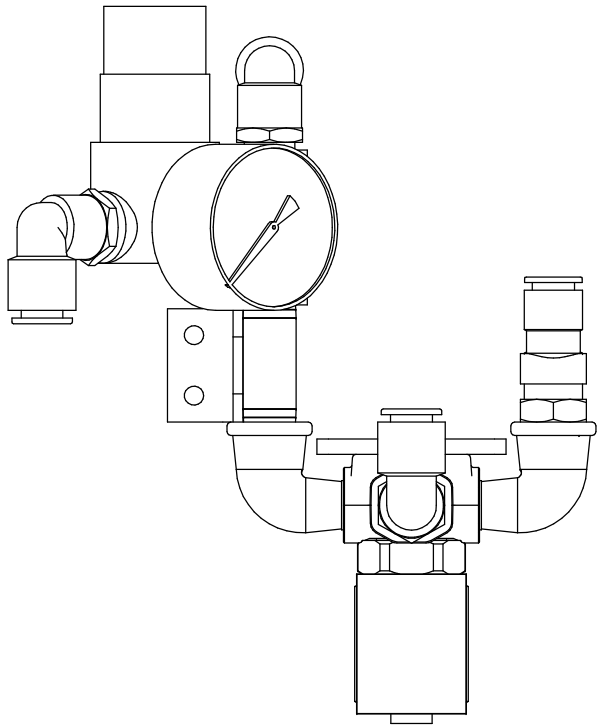
MAT. | DWG BY **SBU** | DATE **14-05-27** | NO. **004B4105**

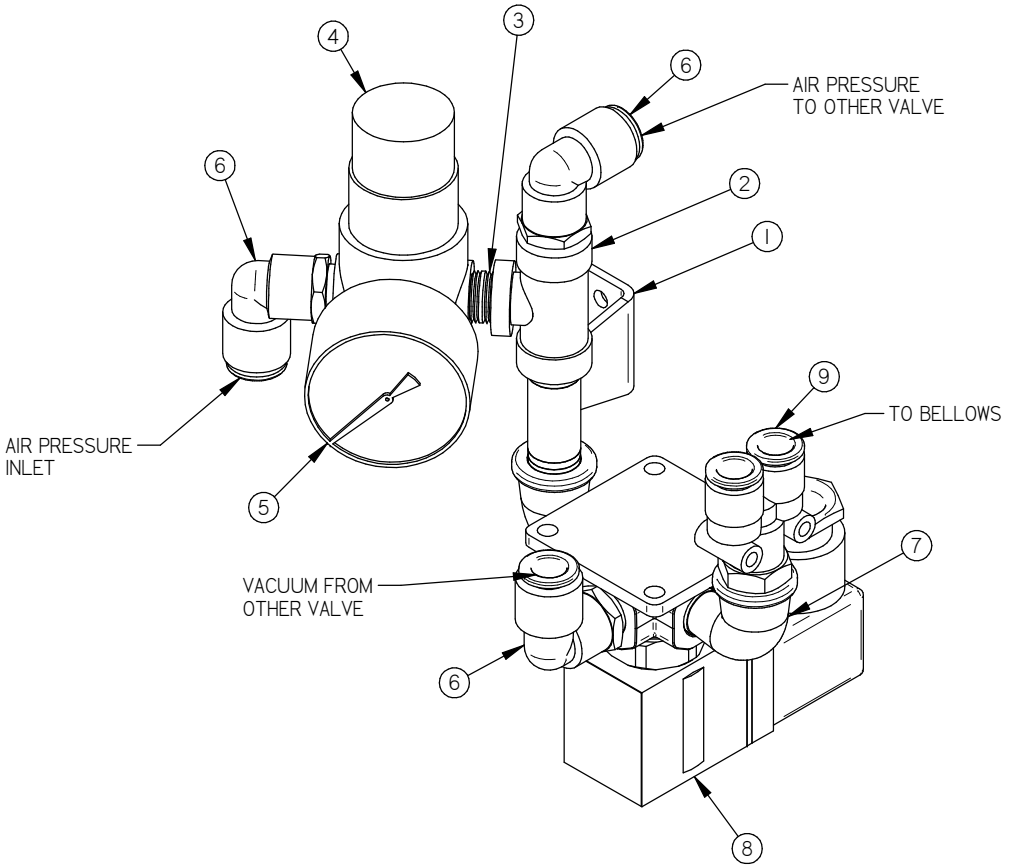
APP. BY | DATE

004B4103

ITEM	PART #	DESCRIPTION	QT.
1	004A4140	AIR REGULATOR SUPPORT	1
7	100-0065	STREET ELBOW 1/4" NPT SS	2
3	100-0225	CLOSE NIPPLE 1/4" NPT SS	1
2	100-0463	TEE 1/4" NPT S/S	1
6	102-0330	ELBOW 1/4" NPT X 3/8" HOSE QUICK	3
9	102-0361	Y BRANCH 1/4" MNPT X 3/8" T. QUICK	1
8	106-00701	VALVE 3WAY 24V 1/4"NPT	1
4	114-0147	PRESSURE REGUL. 0-60 PSI 1/4" NPT	1
5	114-0245	PRESSURE GAUGE 60 PSI 1/8" NPT	1







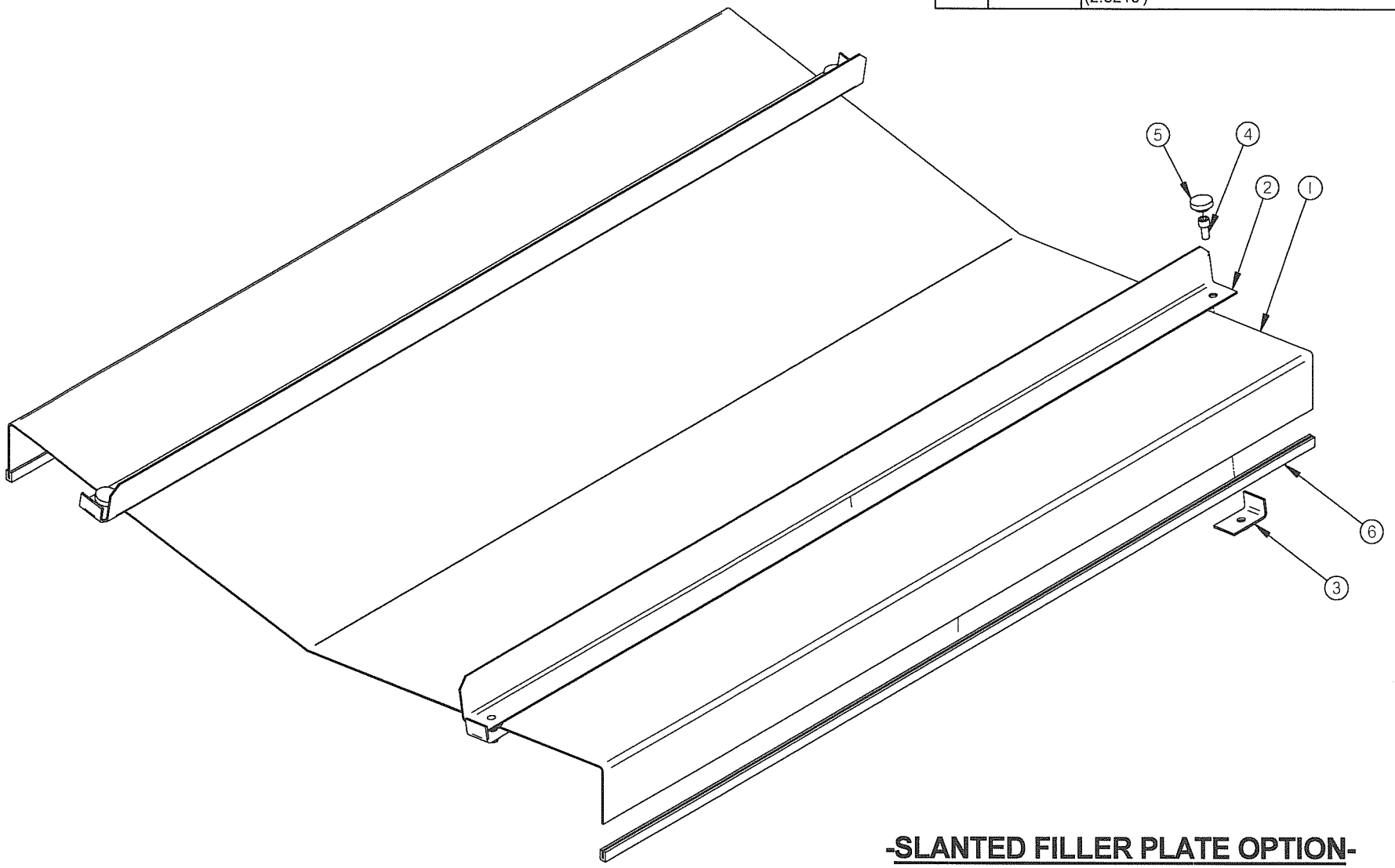
-OPTION - AIR REGULATOR

MACHINE: 600A & 620A	DEPT. TOL / USINAGE / TOLERIE / SOUDAGE	METRIC: ± 0.1 / ± 0.5 / ± 0.5	INCH: ± 0.004" / ± 0.020" / ± 0.020"	SIPROMAC ST-GERMAIN DE GRANTHAM QUEBEC CANADA	
PART: AIR REGULATOR VALVE ASSY			N.T.S.		
ITEM	CNC			DEPT. M	QTY. 1
MAT.	DWG BY SBU	DATE 14-05-27		NO. 004B4103	
	APP. BY	DATE			

LET.	MODIFICATION	DATE	INT.
A	VALVE UPDATED	14-05-27	SBU

005A0868

ITEM	PART #	DESCRIPTION	QT.
1	001A5413	SLANTED FILLER PLATE	1
2	001A4581	ADJUSTABLE STOPPER	2
3	005-0187	ASS. BARRURE	4
4	051-01845	BOLT 1/4"-20 x 1/2"CAP HEX SKT.S/S	4
5	057-0004	THMB SCREW KNOB 1/4"	4
6	179-0014	RUBBER 1/4"x3/8"x1/16"U SHAPED 860mm (2.8215')	2



-SLANTED FILLER PLATE OPTION-

LET.	MODIFICATION	DATE	INT.

MACHINE: 650A
PART: SLANTED FILLER PLATE ASS'Y
ITEM:
MAT.:
CNC:
DWG BY: J.G.
APP. BY:

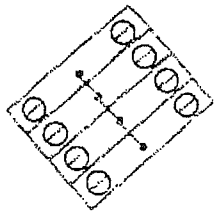
DEPT. TOL.	METRIC	INCH
USINAGE	± 0.1	± 0.004"
TOLERIE	± 0.5	± 0.020"
SOUDAGE	± 0.5	± 0.020"

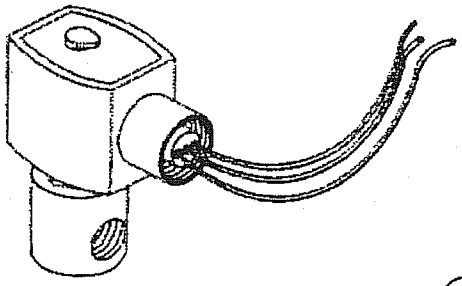
N.T.S.

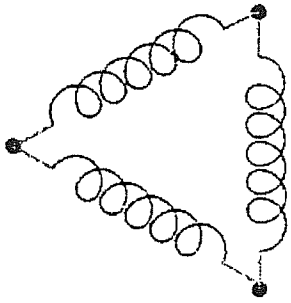
DATE: 10-05-12
DATE: 10-05-12

SIPROMAC
ST-GERMAIN DE GRANTHAM
QUEBEC CANADA

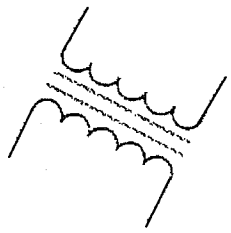
DEPT.: M-I
QTY.: 2
NO.: 005A0868

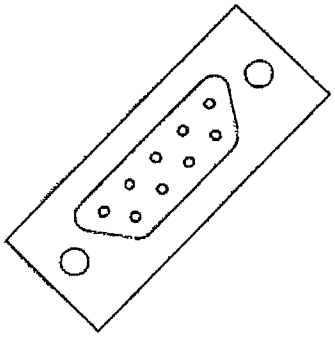


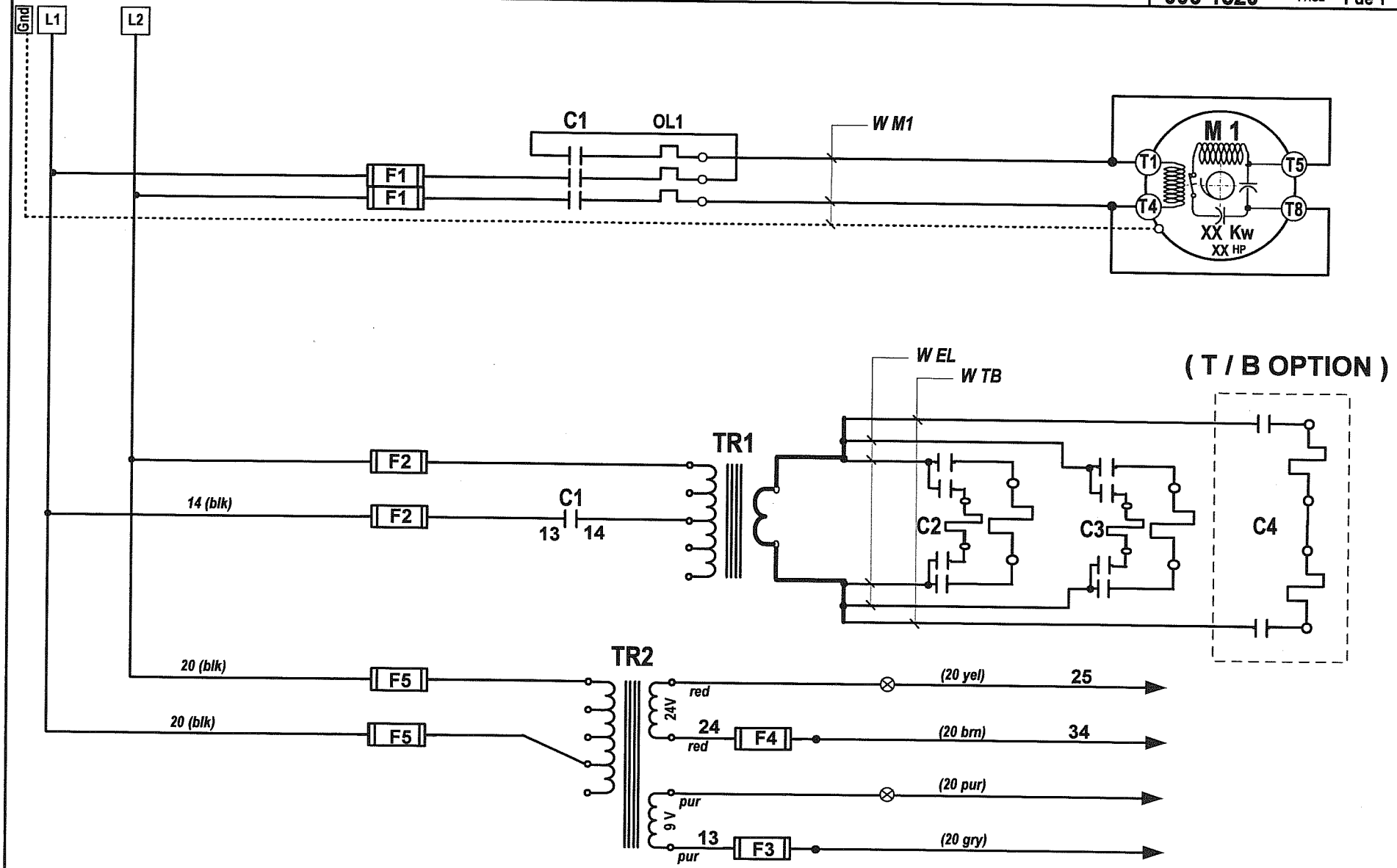




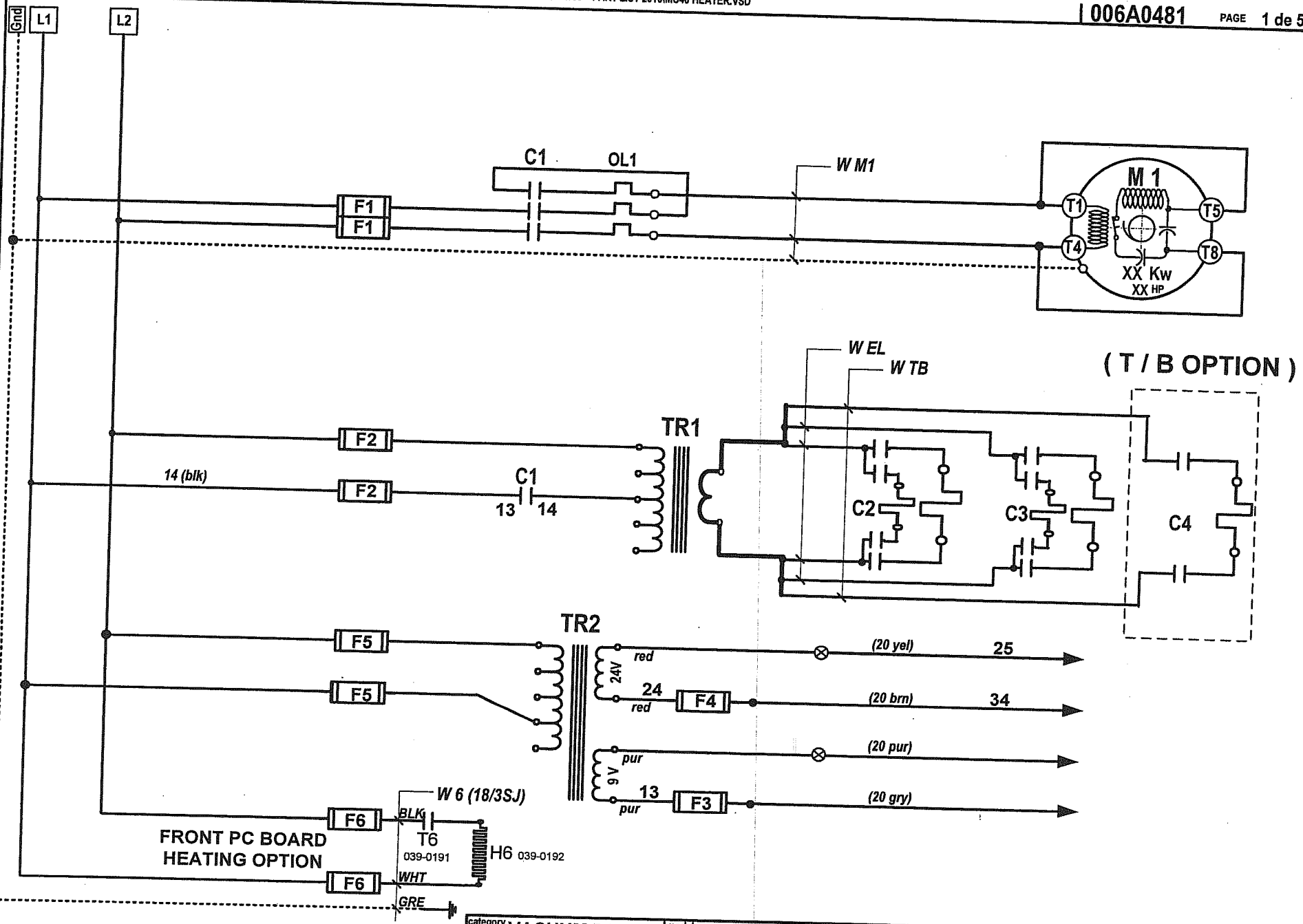
ELECTRICAL DRAWING



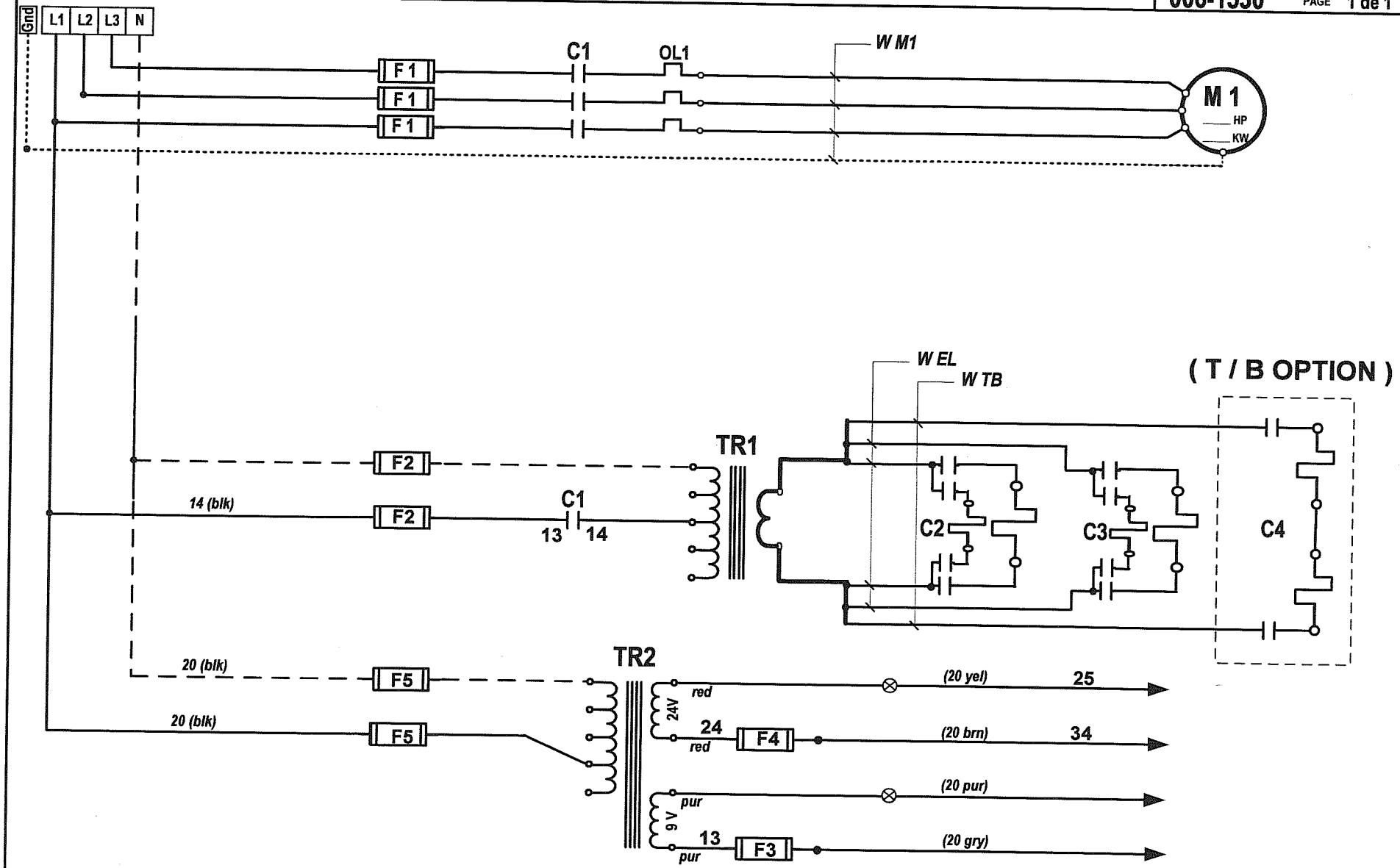




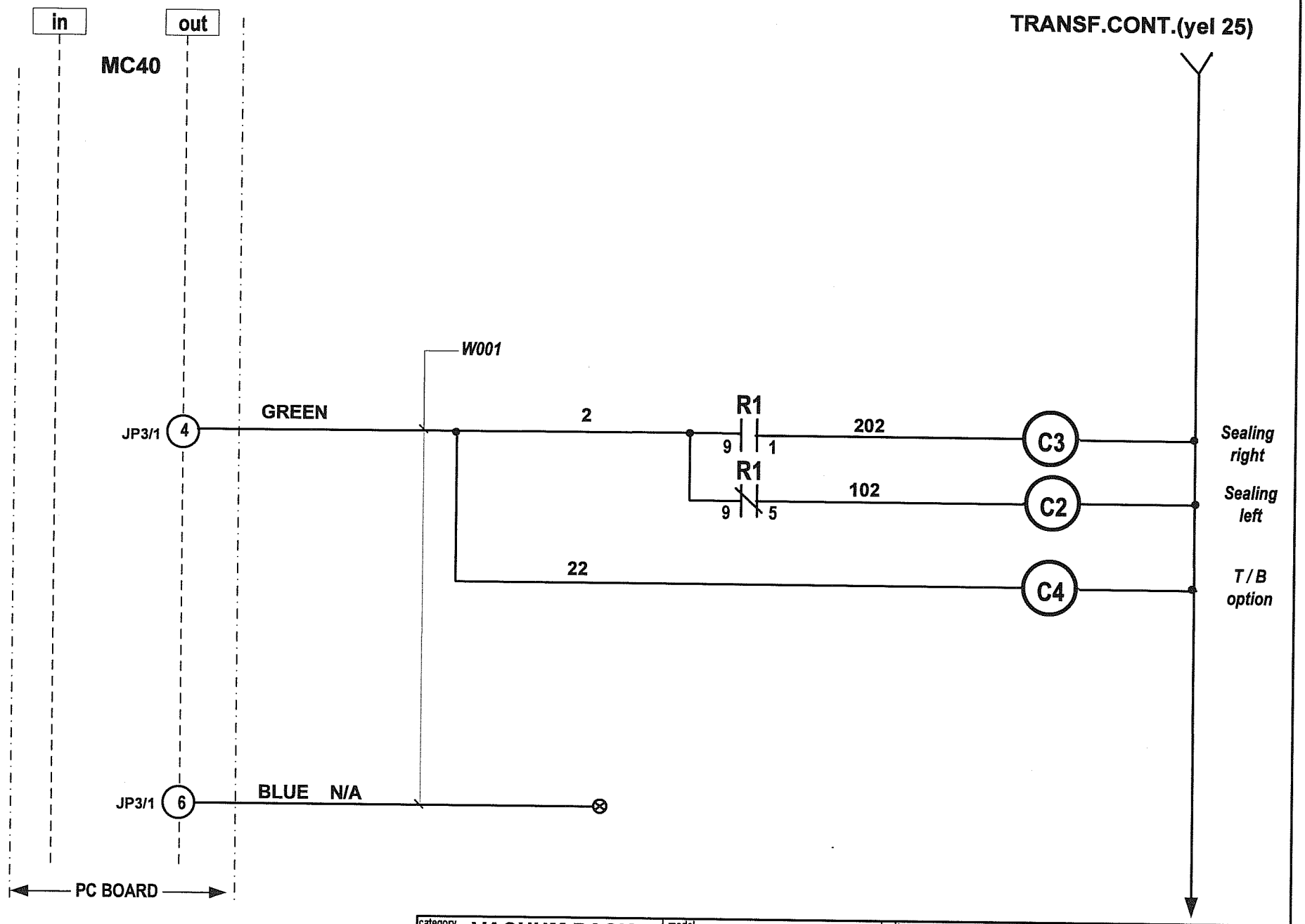
category VACUUM PACK	model 650A	volt. 1Ph 60Hz					SIPROMAC
system POWER		circuit power	year 05	month 01	day 18	block	St-Germain de Grantham QUEBEC ,CANADA
usual fonctions MC-40							
options			concept PP	draw PP	app DL	006-1520 PAGE 1 de 1	



category: VACUUM PACK	model:	volt:				SIPROMAC St-Germain de Grantham QUEBEC ,CANADA
system:		circuit:	year: 10	month: 07	day: 15	block:
usual fonctions:			concept: XX	draw: XX	app: XX	006A0481 PAGE 1 de 5
options:						

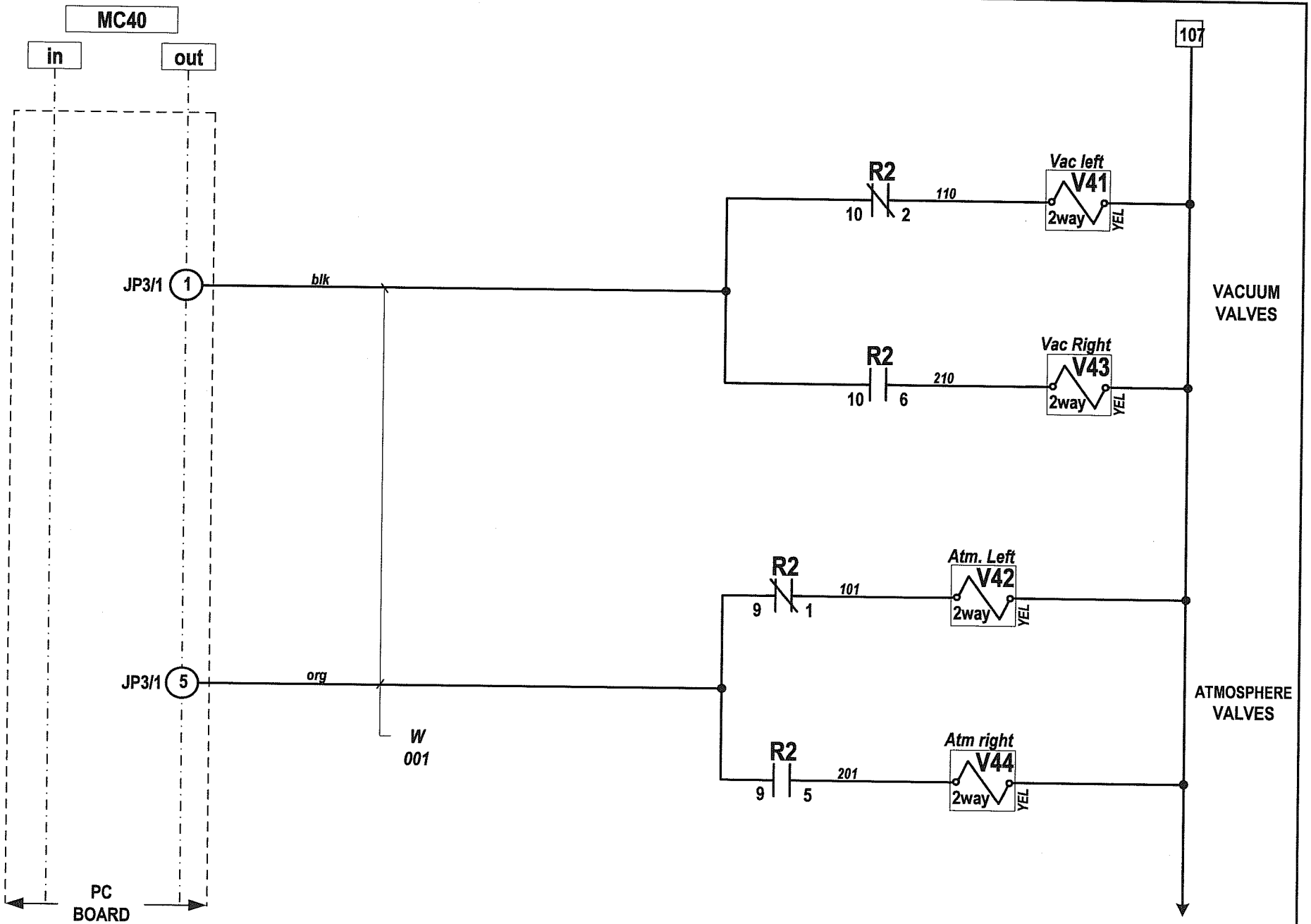


category VACUUM PACK	model 650A	volt. 3Ph 60Hz					SIPROMAC
system POWER		circuit power	year 05	month 01	day 18	block	St-Germain de Grantham QUEBEC ,CANADA
usual fonctions MC-40							
options			concept PP	draw PP	app DL	006-1530 PAGE	1 de 1



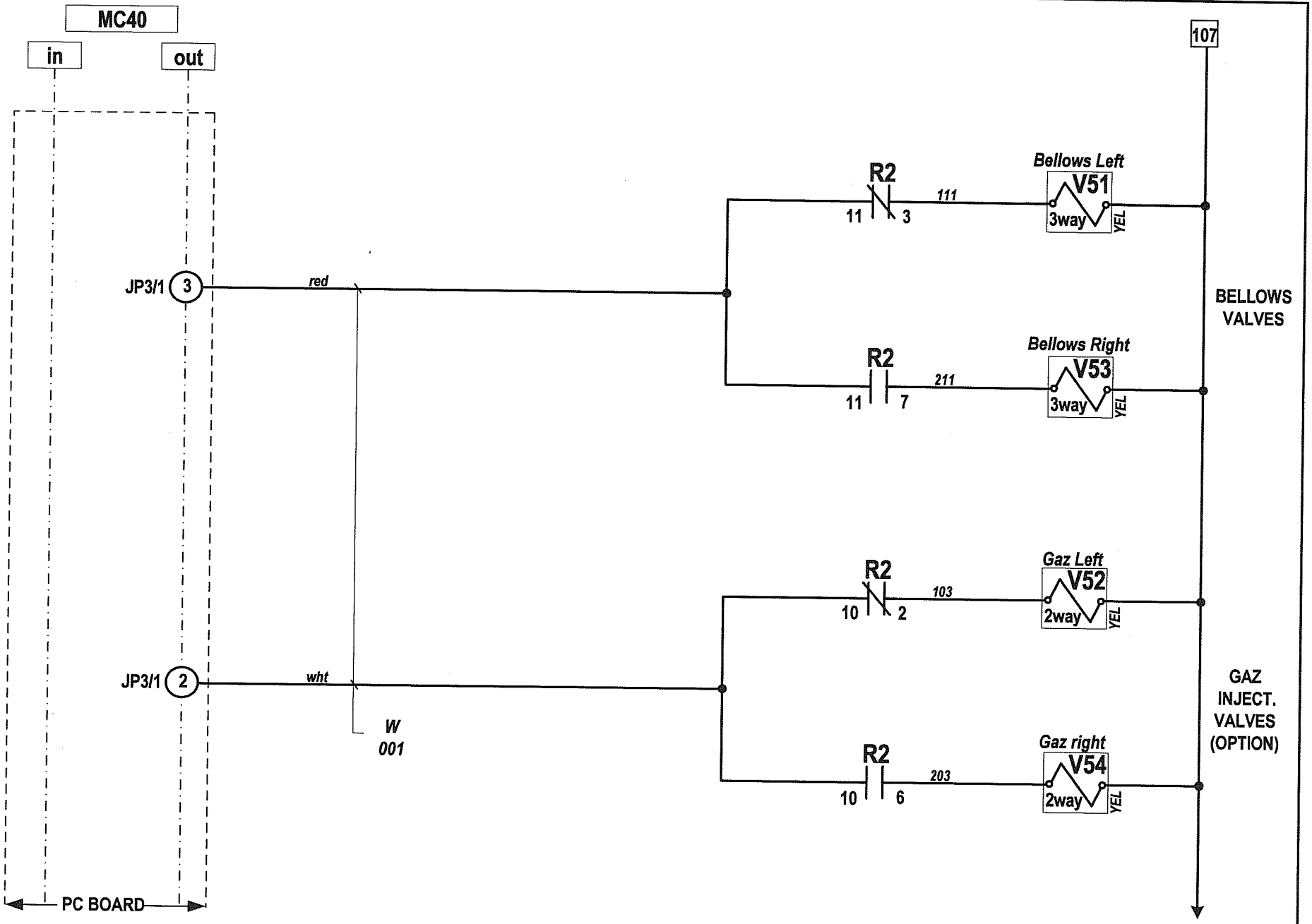
RC filters must be connected on each AC coil (not shown on diagram)

category: VACUUM PACK	model: 650A	volt: ALL					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA
system		circuit	year 11	month 10	day 18	block	
usual fonctions							
options			concept PP	draw PP	app DL	006-1537 PAGE	1 de 5



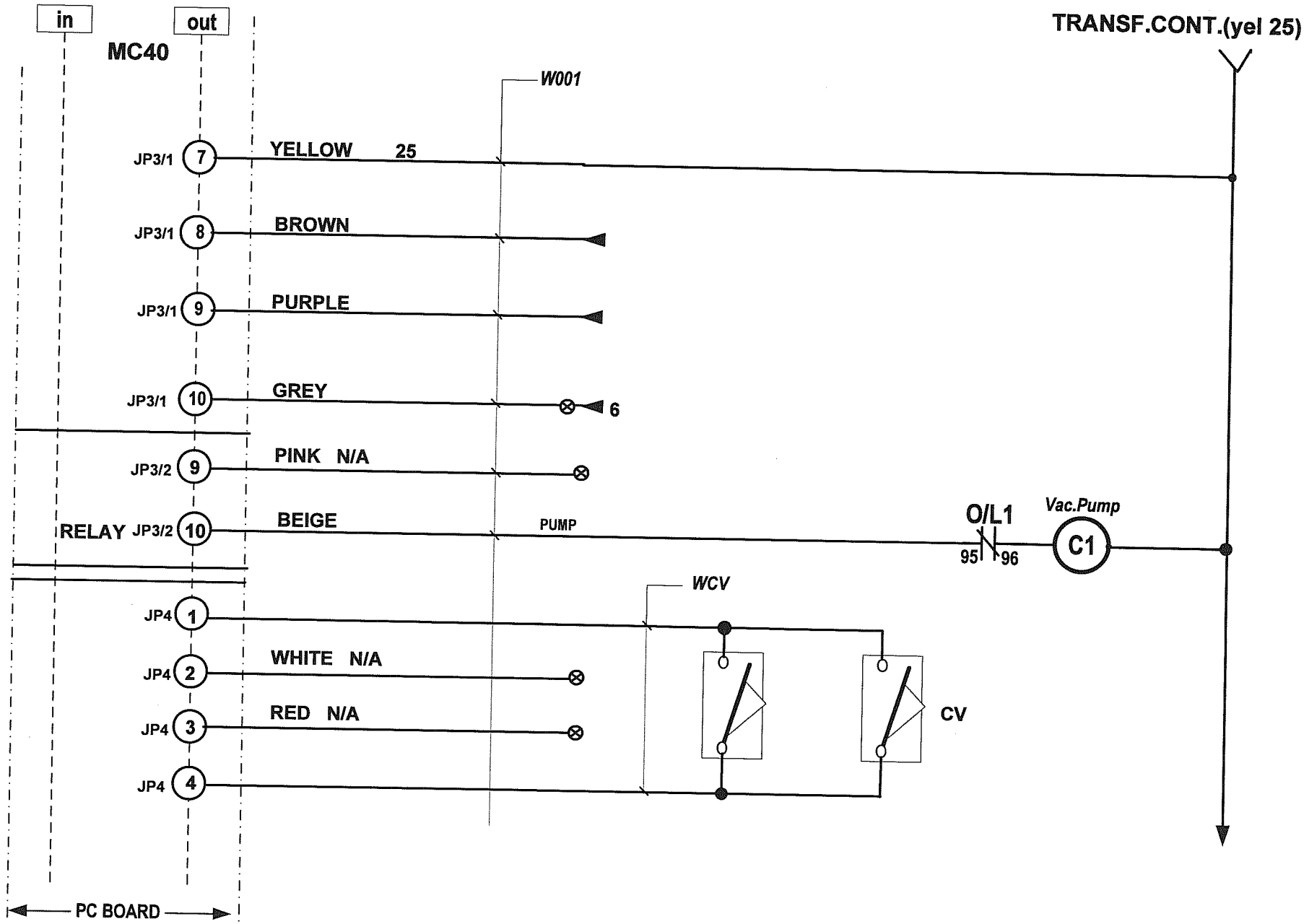
- The left or right sides are based on operator position facing the control panel
- RC filters must be connected on each coil AC (not shown on diagram)

category: VACUUM PACK	model: 650A	volt.: ALL					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA
system		circuit	year: 11	month: 10	day: 18	block: 4	
usual fonctions			concept: PP	draw: PP	app: DL	006-1537 PAGE 2 de 5	
options							



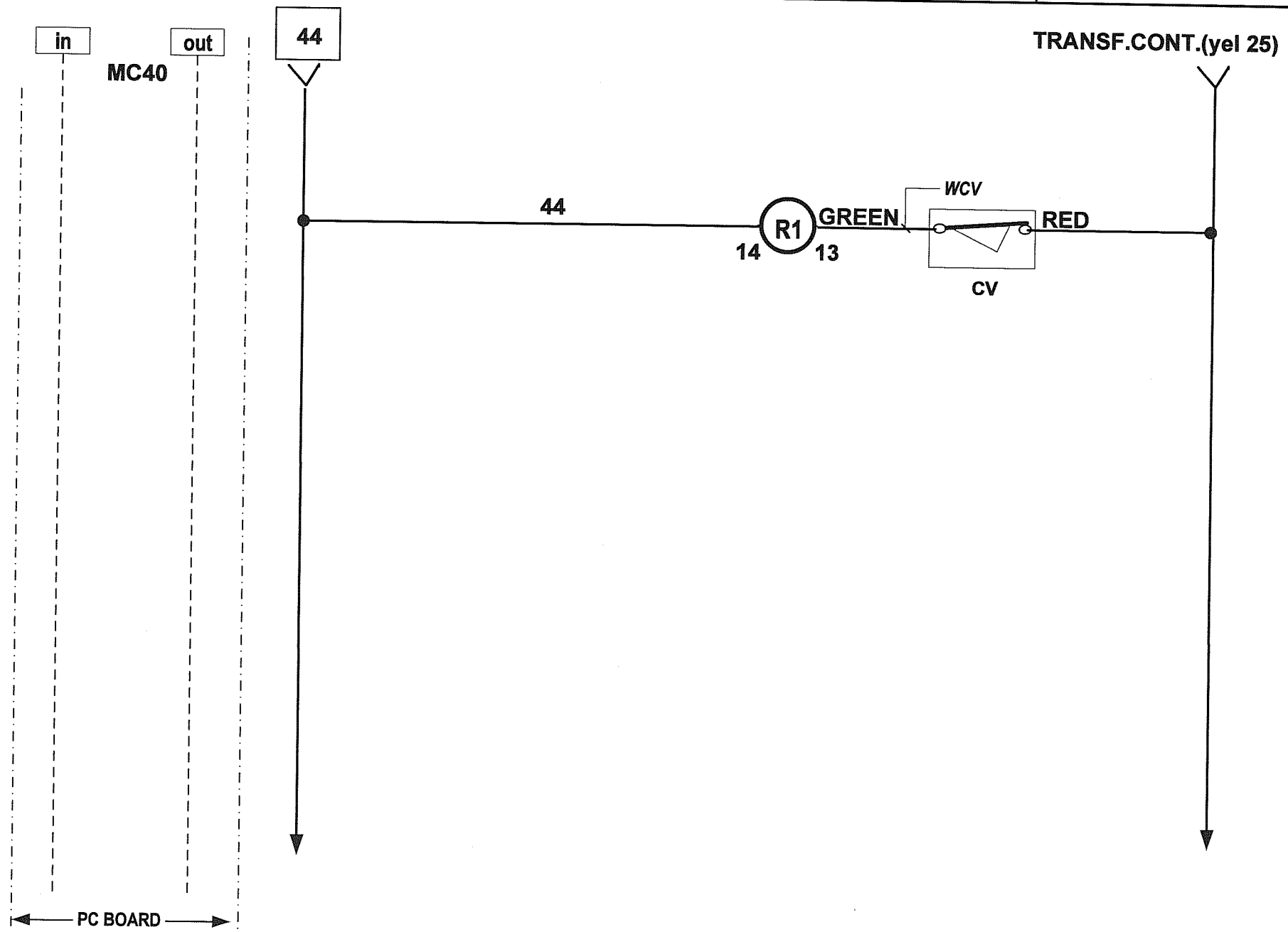
- *The left or right sides are based on operator position facing the control panel*
- *RC filters must be connected on each coil AC (not shown on diagram)*

category: VACUUM PACK	model: 650A	volt.: ALL					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA
system		circuit	year 11	month 10	day 18	block 5	
usual fonctions							
options			concept PP	draw PP	app DL	006-1537 PAGE 3 de 5	



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

category	VACUUM PACK	model	650A	volt.	ALL		SIPROMAC
system				circuit			St-Germain de Grantham
usual fonctions					year 11	month 10	day 18	block	QUEBEC ,CANADA
options					concept PP	draw PP	app DL	006-1537 PAGE 4 de 5	

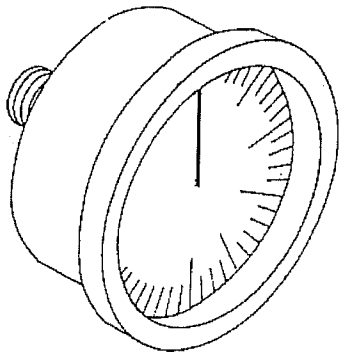


RC filters must be connected on each AC coil (not shown on diagram)

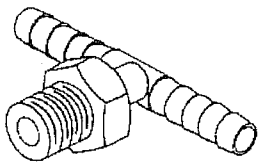
category: VACUUM PACK	model: 650A	volt.: ALL					SIPROMAC St-Germain de Grantham QUEBEC ,CANADA
system		circuit	year 11	month 10	day 18	block	
usual fonctions							
options			concept PP	draw PP	app DL	006-1537 PAGE 5 de 5	

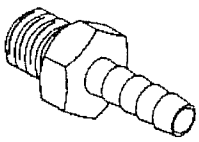
# SIPRO	PART DESCRIPTION	PART APPLICATION	MACHINE VOLTAGE	MACHINE	REF.	OPT.	QTY
028-0022	TERMINAL BLOCK M10/10	SUPPLY	208V/3PH/60HZ	650A	L1-L2-L3		3
028-0025	GROUND TERMINAL BLOCK M16/12P	SUPPLY	208V/3PH/60HZ	650A	GND		1
028-0060	SEPARATOR M4/6	SUPPLY	208V/3PH/60HZ	650A	L1-L2-L3		3
028-0080	BAM END STOP (BUTEE D'ARRET)	SUPPLY	ALL	650A			1
028-0105	GROUND BARRIER (6 HOLES)	SUPPLY	ALL	650A	GND		1
034-0710	FUSE HOLDER 60A/600V (HRCII)	VACUUM	208V/3PH/60HZ	650A	F1		3
034-0110	FUSE MIDGET 60A/600V	VACUUM	208V/3PH/60HZ	650A	F1		3
025-0040	MOTOR CONTACTOR 7.5HP IN 208V/3PH-CSA,UL	VACUUM RA-0165	208V/3PH/60HZ	650A	C1	A1	1
025-0200	THERMAL OVERLOAD 17 TO 25A-CSA,UL	VACUUM RA-0165	208V/3PH/60HZ	650A	O/L1	A1	1
030-0050	CAB TIRE	VACUUM RA-0165	208V/3PH/60HZ	650A	WM1	A1	2M.
125-0070	BUSCH RA-0165 230-460V/3PH/60HZ 7.5HP 21A	VACUUM RA-0165	208V/3PH/60HZ	650A	M1	A1	1
025-0050	MOTOR CONTACTOR 10HP IN 208V/3PH-CSA,UL	VACUUM RA-0255	208V/3PH/60HZ	650A	C1	A2	1
025-0210	THERMAL OVERLOAD 23 TO 32A-CSA,UL	VACUUM RA-0255	208V/3PH/60HZ	650A	O/L1	A2	1
030-0050	CAB TIRE	VACUUM RA-0255	208V/3PH/60HZ	650A	WM1	A2	2M.
125-0080	BUSCH RA-0255 230-460V/3PH/60HZ 10HP 27A	VACUUM RA-0255	208V/3PH/60HZ	650A	M1	A2	1
025-0070	MOTOR CONTACTOR 15HP IN 208V/3PH-CSA,UL	VACUUM RA-0305	208V/3PH/60HZ	650A	C1	A3	1
025-0220	THERMAL OVERLOAD 30 TO 40A-CSA,UL	VACUUM RA-0305	208V/3PH/60HZ	650A	O/L1	A3	1
030-0030	CAB TIRE	VACUUM RA-0305	208V/3PH/60HZ	650A	WM1	A3	2M.
125-0087	BUSCH RA-0305 230-460V/3PH/60HZ 12HP 32A	VACUUM RA-0305	208V/3PH/60HZ	650A	M1	A3	1
034-0700	FUSE HOLDER 30A/600V GOULD	SEALING	208V/3PH/60HZ	650A	F2		2
034-0530	FUSE MIDGET 20A/250V TIME-DELAY	SEALING	208V/3PH/60HZ	650A	F2		2
029-0172	TRANSFO 1500VA 208-240-480-600/30V	SEALING	208V/3PH/60HZ	650A	TR1		1
027-0220	TERMINAL ROUND STUD #10 600v 75°C	SEALING	ALL	650A			4
025-0020	CONTACTOR ITH=25A-CSA,UL	SEALING	ALL	650A	C2+C3		2
030-0410	TEW #10/104 BLACK	SEALING	ALL	650A	WEL		15M.
027-0210	TERMINAL FEMALE .250" INSULATED 600v 75°C	SEALING	ALL	650A	WEL		8
005B0547	SEAL BAR ASSY W/SUPPORT	SEALING TWIN SEAL	ALL	650A		B1	4
005B0548	SEAL BAR ASSY W/SUPPORT	SEALING BAG CUT	ALL	650A		B2	4
027-0220	TERMINAL ROUND STUD #10 600v 75°C	SEALING TOP & BOTTOM	ALL	650A		B3	2
025-0020	CONTACTOR ITH=25A-CSA,UL	SEALING TOP & BOTTOM	ALL	650A	C4	B3	1
030-0120	CAB TIRE	SEALING TOP & BOTTOM	ALL	650A	WTB	B3	3M.
027-0065	TERMINAL FLAG FEMALE YELLOW .250"	SEALING TOP & BOTTOM	ALL	650A	WTB	B3	4
005B0549	SEAL BAR ASSY W/SUPPORT	SEALING TOP & BOTTOM	ALL	650A		B3	4
005B0437	UPPER SEAL BAR ASSY W/SUPPORT	SEALING TOP & BOTTOM	ALL	650A		B3	2
034-0740	FUSE HOLDER M4/8SF	CONTROL TRANSFO	208V/3PH/60HZ	650A	F5		2
034-0205	FUSE 5X20MM 1A 250V T-DELAY	CONTROL TRANSFO	208V/3PH/60HZ	650A	F5		2
029-0010	TRANSFO 115VA 575-400-230-208-190/24-9	CONTROL TRANSFO	208V/3PH/60HZ	650A	TR2		1
034-0740	FUSE HOLDER M4/8SF	CONTROL 9VAC+24VAC	ALL	650A	F3+F4		2
034-0210	FUSE 5X20MM 2A/250V TIME DELAY	CONTROL 9VAC	ALL	650A	F3		1
034-0240	FUSE 5X20MM 4A/250V TIME DELAY	CONTROL 24VAC	ALL	650A	F4		1
030-0590	20AWG/12COND.PVC,UNSHIELD.300V	OUTPUT CONTROL	ALL	650A	W001		2.5M.

# SIPRO	PART DESCRIPTION	PART APPLICATION	MACHINE VOLTAGE	MACHINE	REF.	OPT.	QTY
036-0740	12 CONTACTS CONNECTOR	OUTPUT CONTROL	ALL	650A	JP3/1-2		1
030-0631	22AWG/4COND.PVC,SHIELDED,300V.	INPUT CONTROL	ALL	650A	WCV1+WCV3		2.5M.
030-0610	PVC #22-2COND.300V CSA RED/BLK	INPUT CONTROL	ALL	650A	WCV2		0.5M.
036-0820	0.156" CENTERLINE CRIMP HOUSING	INPUT CONTROL	ALL	650A	JP4		1
036-0850	0.156" CENTERLINE CRIMP TERMINAL	INPUT CONTROL	ALL	650A	JP4		2
033-0038	MICROPROCESSOR MC-40 SENSOR VACUUM	CONTROL WITH SENSOR	ALL	650A	MC-40	C1	1
033-00385	MICROPROCESSOR MC-40 NO SENSOR VAC.	CONTROL W/O SENSOR	ALL	650A	MC-40	C2	1
033-0015	MEMBRANE MC-40 SIPROMAC	CONTROL SIPROMAC	ALL	650A		D1	1
033-0018	MEMBRANE MC-40 BERKEL	CONTROL BERKEL	ALL	650A		D2	1
106-0060	VALVE 2WAY 24V 2" NPT(B80) 60HZ	VACUUM	ALL	650A	V41+V43		2
106-0050	VALVE 2WAY 24V 1-1/4" NPT(B60) 60HZ	ATMOSPHERE	ALL	650A	V42+V44		2
106-0070	VALVE 3WAY 24V 1/4 NPT(G176)60HZ	BELLOWS	ALL	650A	V51		1
106-0070	VALVE 3WAY 24V 1/4 NPT(G176)60HZ	OPTION AIR REGULATOR	ALL	650A	V53	F	1
106-0010	VALVE 2WAY 24V 1/4 NPT(G22) 60HZ	OPTION GAS	ALL	650A	V52+V54	E	2
026-0610	LIMIT SWITCH LONG ROLLER 15A 250V	COVER POSITION	ALL	650A	CV1+CV2+CV3		3
025-0600	4PDT RELAY 24VAC (55.34-24VAC)	COVER POSITION	ALL	650A	R1+R2		2
025-0610	4PDT RELAY SOCKET 24VAC	COVER POSITION	ALL	650A	R1+R2		2
025-0611	RELAY SOCKET RETAINING CLIP	COVER POSITION	ALL	650A	R1+R2		2



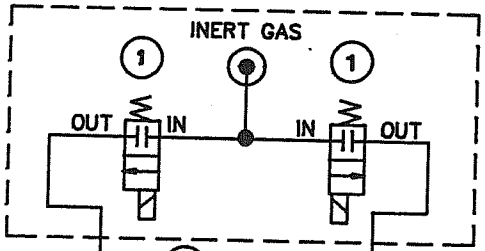
PNEUMATIC DRAWING



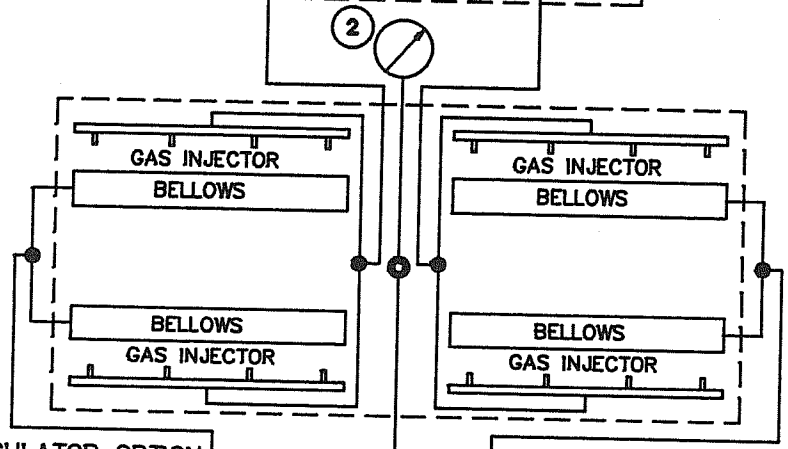


007-0019

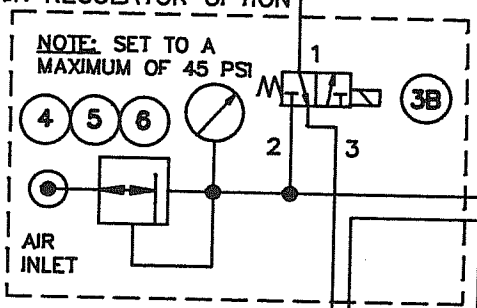
-NOTE:
-FOR GAS INJECTION KIT INSTALLATION SEE DRAWINGS #:
420A: #010-0016
600A: #010-0017
620A: #010-0018
650A: #010-0020

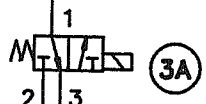


GAS OPTION

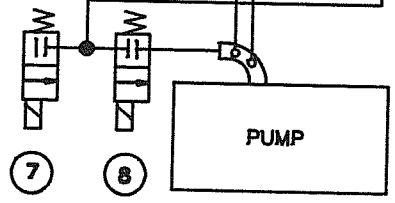


AIR REGULATOR OPTION





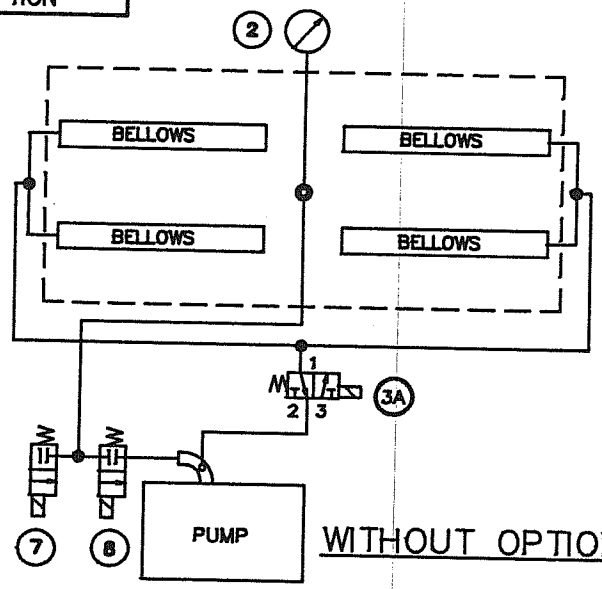
-NOTE:
-FOR AIR REGULATOR OPTION KIT INSTALLATION SEE DRAWINGS #: 010-0019 & 650A: #010-0027 (FOR EXISTING MACHINES)



WITH OPTIONS

ITEM	PART #	DESCRIPTION	QT.
1	106-0010	GAS VALVE	2*
2	114-0260	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	
	106-0050	ATMOSPHERE VALVE FOR 650A & 700A	
8	106-0030	VACUUM VALVE FOR 420A	1
	106-0050	VACUUM VALVE FOR 600A & 620A	
	106-0060	VACUUM VALVE FOR 650A & 700A	

*: OPTION



WITHOUT OPTION

LET.	MODIFICATION	DATE	INT.
A	RE-DRAWN	97-03-11	M.L.

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

MANUEL D'UTILISATEUR

MICROPROCESSEUR MC-40
AVEC OU SANS DÉTECTEUR DE VIDE

EMBALLEUSE SOUS VIDE

TABLE DES MATIÈRES

EMBALLEUSES SOUS VIDE
INSTRUCTIONS D'OPÉRATIONS

TABLE DES MATIÈRES

SIPROMAC INC.
EMBALLEUSES SOUS VIDE

1. MISE EN PLACE DE LA MACHINE:

Avant de choisir le site d'installation de votre machine, veuillez considérer que vous aurez besoin d'espace pour les produits emballés et non-emballés à part de l'espace occupé par la machine elle-même.

Bien vouloir vous rappelez que vous aurez besoin d'un sol bien au niveau pour votre installation. Spécialement avec les modèles mobiles, le poids de la pompe peut gauchir la machine et le le couvercle ne fermera plus correctement.

Avant de commencer à travailler, vérifier l'huile de la pompe pour voir si elle est en quantité suffisante. Bien vouloir ne jamais utiliser une huile autre que celle recommandée par le fabricant. Ne pas excéder la quantité indiquée quand vous ajoutez ou faites le changement d'huile et faites votre vérification hebdomadairement.

En raison de la viscosité de l'huile, la machine sera plus difficile à démarrer à basses températures. Ainsi donc la pompe doit être placée dans un endroit où la température est d'au moins 50°F (+10°C). D'autre part, l'air doit circuler librement aux alentours de la pompe pour permettre le refroidissement dans les cas où la température des opérations atteindrait 160°F (70°C) ou la température maximale permise.

2. CONNECTION ÉLECTRIQUE:

Les connections électriques doivent se faire par du personnel qualifié. La personne désignée doit s'assurer que les entrées électriques correspondent au voltage et à l'ampérage approprié de la machine.

Un schéma électrique accompagne chacune de nos machines.

Une étape importante dans le branchement de la machine est de s'assurer que le moteur de la pompe tourne dans une rotation appropriée.

> Attention: Le moteur de la pompe ne devrait pas tourner plus de 3 ou 4 secondes dans une mauvaise rotation car il en résultera des dommages sérieux. La rotation est indiquée par une flèche dur le moteur de la pompe.

3. OPÉRATION:

3.1 Principes de travail:

Un empaquetage sous vide est un cycle composé de 3 étapes. Premièrement le vide est fait et l'air est complètement enlevé de la chambre et du sac contenant le produit. (Voir figure 1). Ensuite c'est possible d'injecter du gaz neutre par les conduits si le produit est très délicat. Finalement, un mécanisme pousse la barre de scellage sur le support de caoutchouc pour sceller le sac

Pour obtenir de beaux empaquetages, les produits et les sacs doivent être de taille proportionnelles. L'ouverture du sac ne devrait jamais excéder 2" (50cm) au delà des barres de scellage. Le produit doit être centré en hauteur par rapport aux barres de scellage en ajustant les écarteurs qui vous sont fournis.

Pour obtenir un bon scellage, assurez-vous qu'il n'y a pas de résidu de graisse qui reste entre les côtés intérieurs des sacs où le scellage doit être fait.

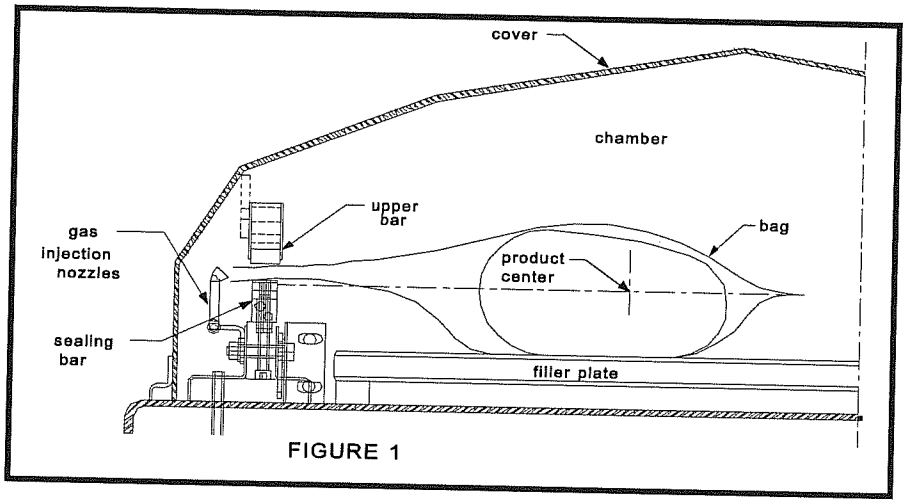


FIGURE 1

3.2 Empaquetage Spécial:

3.2.1 Injection de Gaz (option):

Il y a une pression atmosphérique de 14 lbs / pouce carré (= 1 kg / cm carré) sur les produits quand le vide demandé est atteint. Les produits qui peuvent être endommagés par une haute pression doivent être empaquetés avec un vide partiel et la pression doit être contrebalancée en injectant du gaz dans le sac (nitrogène ou dioxyde de carbone) avant le scellement et après avoir atteint le vide.

Pour l'injection de gaz, les sacs sont placés sur les barres de scellage, l'ouverture placée au dessus des conduits de gaz qui sont montés le long des barres de scellage. Après que le vide soit atteint, la valve du vide se ferme et la valve du gaz s'ouvre. Le pourcentage de gaz peut être ajusté par le menu du programme.

Le réservoir de gaz et la valve de pression qui est rattachée au réservoir ne sont pas fournis par Sipromac. La pression pour le régulateur de gaz devrait être ajustée approximativement à 5 lbs/pouce carré (1/3 Kg/cm carré). Chaque machine a un adapteur pour la connexion de gaz quand l'option de l'injection de gaz est commandée.

3.2.2 Scellage Haut et Bas (optionnel):

Pour le scellage des sacs en aluminium comme pour le café il est impératif d'avoir une barre de scellage en haut et en bas.

3.2.3 Coupe sac électrique: (optionnel):

Cette option est utilisée pour obtenir un paquet dont l'excédent de film au niveau du scellage doit être coupée très près de la ligne de scellage. (cette option ne peut pas être utilisée avec le scellage Haut et Bas)

3.3 Les opérations de l'empaquetage sous vide:

Note: Reportez-vous aux menus structure de la page 8 et aux détails du panneau de contrôle sur la page 9

3.3.1 Bases:

Utilisez la touche "POWER" pour initier le bouton ON/OFF sur votre machine sous vide. Quand votre unité sera en fonction le dernier programme exécuté apparaîtra sur l'écran à cristaux liquides.

Utilisez la touche "ESC" pour passer du menu programme au menu fonctions et du menu des fonctions au menu des programmes.

Dans le menu des fonctions, utilisez la touche "SELECT" pour sélectionner une fonction et la touche "ENTER" pour exécuter la sélection.

Dans le menu des programmes, utilisez la touche "SELECT" pour sélectionner un programme et la touche "Enter" pour accéder ou modifier la sélection.

Dans les programmes du sous menu, utilisez la touche "ENTER" pour voir défiler les paramètres et lorsque ces derniers clignotent pour indiquer ils sont dans le mode d'acquisition. Quand la séquence de tous les paramètres se sont affichés, on revient automatiquement au début de la liste.

Dans les programmes du sous menu, utilisez la touche "ESC" pour revenir au menu des programmes. Pressez n'importe quelle touche pour effacer les messages d'erreur qui peuvent s'afficher sur l'écran à cristaux liquide.

3.3.2 Menu des fonctions:

3.3.2.1 Créer un programme:

Quand vous exécuter la fonction "create a program", le programme sous menu est atteint en commençant par l'identification. L'identification initiale "PxxNO NAME" est donné au programme et tous les paramètres sont établis à zéro; le numéro du programme est alloué automatiquement.

3.3.2.2 Supprimer un programme:

En exécutant la fonction de "delete a program", vous avez accès au menu des programmes et le numéro du premier programme en mémoire clignote pour indiquer le mode de suppression. Utilisez la touche "SELECT" pour sélectionner un programme et la touche "ENTER" pour avoir accès et confirmer la suppression de la sélection. Utilisez la touche "ESC" pour annuler une suppression et quitter la fonction. Quand vous quittez la fonction, le nombre des programmes actuels sur l'écran à cristaux liquides cesse de clignoter.

3.3.2.3 Choisir le mode d'opération:

Quand vous exécutez la fonction "Select Operating Mode", laquelle est disponible seulement pour les unités automatiques, la sélection en cours clignote pour vous indiquez le mode. Utilisez la touche "SELECT" pour parcourir les modes d'opération, lesquels sont automatiques, semi-automatiques et manuels.

Le mode d'opération sera validé et exécuté automatiquement. Utilisez la touche "ESC" ou "ENTER" pour quitter la function et retourner au menu des programmes.

3.3.3 Menu des Programmes:

3.3.3.1 Identification des Programmes:

Pour un programme sélectionné, choisissez l'identification en utilisant le panneau de contrôle numérique avec la chartre des caractères et pressez sur la touche numérique jusqu'à ce que le caractère soit sélectionné (4 x pour la valeur numérique). Utilisez la touche "ENTER" pour valider le caractère ainsi que la chaîne de caractères jusqu'à la fin (la nouvelle chaîne de caractères clignote). Vous pouvez utilisez la touche "ESC" pour revenir en arrière dans le cas où vous vous êtes trompé et que vous voulez effacer le caractère.

Example: EXAMPLE 1 → (9 caractères)

Touche 2, 2, ENTER → E
Touche 8, 8, 8, ENTER → X
Touche 1, ENTER → A
Touche 5, ENTER → M
Touche 6, ENTER → P
Touche 4, 4, 4, ENTER → L
Touche 2, 2, ENTER → E
Touche 9, 9, 9, ENTER → espace
Touche 1, 1, 1, 1, ENTER → 1
Touche ENTER pour valider la chaîne de caractères

3.3.3.2 L'ajustement du niveau de Vide (capteur de vide désactivé):

Pour un programme sélectionné, ajustez le niveau de vide, en secondes; la validation est automatiquement exécutée après la deuxième entrée digitale (Le nouveau temps de vide clignote). En cours de traitement, utilisez la touche "ENTER" pour valider la valeur du niveau de vide et la touche "ESC" pour revenir en arrière et changer la valeur du niveau de vide (La valeur du niveau de vide la plus ancienne clignotera à ce moment).

Exemples: 1 sec. → Touches 0, 1 ou 1, ENTER
15 sec. → Touches 1, 5

3.3.3.3 L'ajustement du niveau de Vide (capteur de vide en activé):

Pour un programme sélectionné, ajustez le niveau de vide avec les valeurs; le point décimal est automatiquement inséré suivant la deuxième entrée digitale et la validation est automatiquement exécutée après la troisième entrée digitale (La nouvelle valeur du niveau du vide clignote). Le niveau de vide est arrondi à la demie la plus près de la valeur. En cours de traitement, utilisez la touche "ENTER" pour valider la valeur du niveau de vide et la touche "ESC" pour revenir en arrière et changer la valeur du niveau de vide (La valeur du niveau de vide la plus ancienne clignotera à ce moment). Ajustez le niveau du vide à zéro pour pouvoir contourner le capteur de vide et procédez en réglant seulement le " Temps de vide Plus" (Vacuum plus time).

Exemples:
90.0% → Touches 9, 0, 0 ou 9, 0, ENTER ou
Touches 9, 0, 1 ou 9, 0, 2 or 9, 0, 3 ou 9, 0, 4
97.5% → Touches 9, 7, 5 ou
Touches 9, 7, 6 ou 9, 0, 7 or 9, 0, 8 ou 9, 0, 9
0.0% → Touches 0, 0, 0 ou 0, ENTER

3.3.3.4 Ajustement du Temps de Vide "Plus" (capteur de vide activé):

Pour un programme sélectionné, réglez le "temps de vide plus" en secondes; la validation est automatiquement exécutée après la deuxième entrée digitale (La nouvelle valeur du "temps de vide plus" clignotera à ce moment). En cours de traitement, utilisez la touche "ENTER" pour valider la nouvelle valeur du "temps de vide plus" et la touche "ESC" pour revenir et recommencer avec de nouvelles valeurs (la valeur la plus ancienne du "temps de vacuum plus" clignotera).

Exemples:
1s → Touche 0, 1 or 1, ENTER
15s → Touche 1, 5

3.3.3.5 Ajustement de l'injection de gaz (capteur de vide désactivé):

Pour sélectionner un programme placer le niveau d'injection de gaz en suivant la même procédure que pour le niveau de vide. Gardez en mémoire que plus le temps d'injection de gaz est haut, moins la pression du sellage sera forte. Un certain niveau de vide doit être maintenu pour un bon fonctionnement.

3.3.3.6 Ajustement de l'injection de gaz (capteur de vide activé):

Pour sélectionner un programme placer le niveau d'injection de gaz en suivant la même procédure que pour le niveau de vide; L'ajustement pour le gaz le plus haut devrait être de 10% au-dessous du niveau de l'ajustement de vide.

3.3.3.7 Ajustement du cachetage:

Pour sélectionner un programme le temps de cachetage, en commençant par les secondes; le point décimale est automatiquement insérée après la première entrée de chiffre et la validation est automatiquement effectuée après la troisième entrée de chiffre (le nouveau temps de cachetage clignote). Le temps de cachetage est arrondi à la moitié la plus proche du cent. À un milieu l'entrée des données, utiliser la clé "ENTER" pour valider l'heure du cachetage et la clé " ESC " pour revenir en arrière et reprogrammer le temps cachetage avec de nouvelles données (le vieux temps de cachetage clignote).

Examples:
4.50s → clés 4, 5, 0 or 4, 5, ENTER or
clés 4, 5, 1 or 4, 5, 2 or 4, 5, 3 or 4, 5, 4
2.35s → clés 2, 3, 5 or
clés 2, 3, 6 or 2, 3, 7 or 2, 3, 8 or 2, 3, 9
0.00s → clés 0, 0, 0 or 0, ENTER

3.3.4 Exécution de cycle de vide :

Pour les unités manuels ainsi que les unités automatiques faire la mise en marche manuelle, fermer le couvercle afin de lancer un cycle de vide. Pour l'unité automatique faire mise en marche semi-automatique ou automatique, utilisez le bouton "ARRÊT / DÉBUT" pour lancer ou interrompre un cycle de vide. Le programme sélectionné peut être lancé seulement dans le programme du menu, au moment où aucune modification n'est nécessité, et l'accès des autres programmes et des fonctions ne sont pas requis. Pendant l'exécution du cycle le statut d'opération est séquentiellement affiché sur l'écran à cristaux liquides, excepté pour les paramètres établis à zéro, qui ne sont pas montrés:

- niveau de vide de la chambre pendant la séquence,
- vide additionné du temps pendant le vide plus la séquence,
- niveau de vide de la chambre pendant la séquence d'injection de gaz,
- statut de temps de cachetage pendant la séquence de cachetage,
- niveau de vide de la chambre pendant La séquence d'atmosphère .7

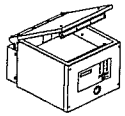
Pendant l'exécution du cycle, utilisé la clef "1" pour interrompre la séquence de vide et pour exécuter la séquence suivante, sois l'injection du gaz ou le cachetage, suivi de la clé "ENTER" afin d'accéder et modifier le programme; les paramètres deviennent valides seulement pour les cycles suivants de vide.

3.3.5 System monitor:

Pour accéder le menu des diagnostics, monter la puissance de la machine d'emballage sous vide tout en maintenant le bouton "'ESC" enfoncé. Utilisez la clé "SELECT" pour choisir la fonction du système du moniteur et "ENTER" pour accéder et visualiser les paramètres surveillés. Employez la clé "SELECT" pour changer la révision de logiciel, la quantité d'heures de travail faites et de la quantité de cycles complets exécutés depuis la première initialisation.

NOTES

VACUUM PACKAGING MACHINES



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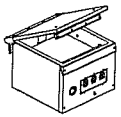

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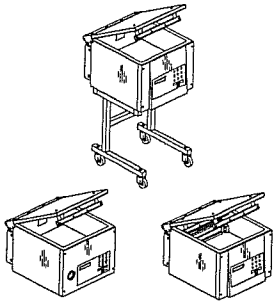

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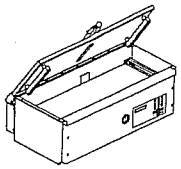
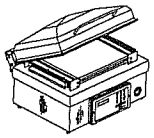


380A



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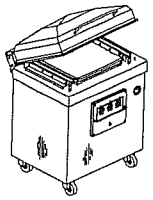

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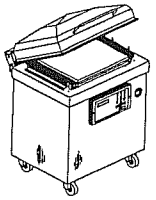

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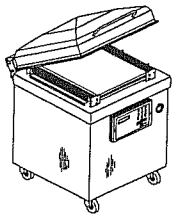

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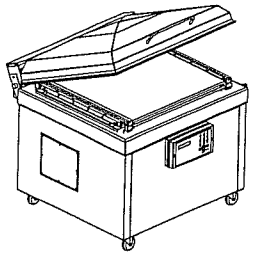

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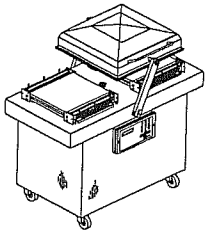

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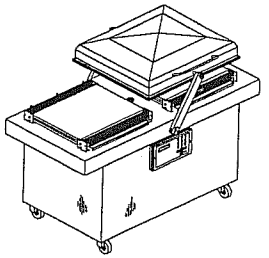

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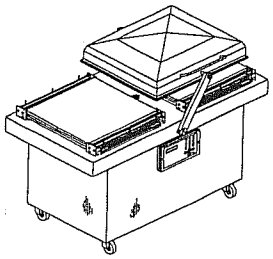
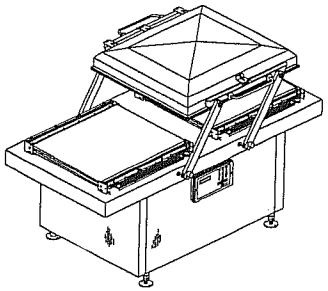


620A



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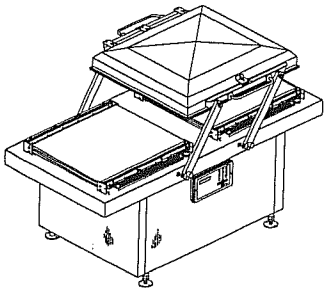

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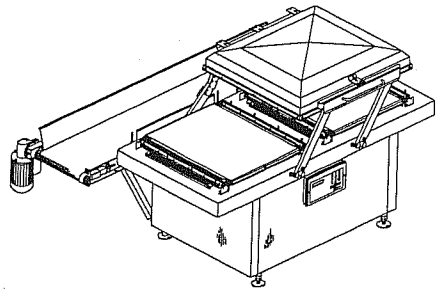

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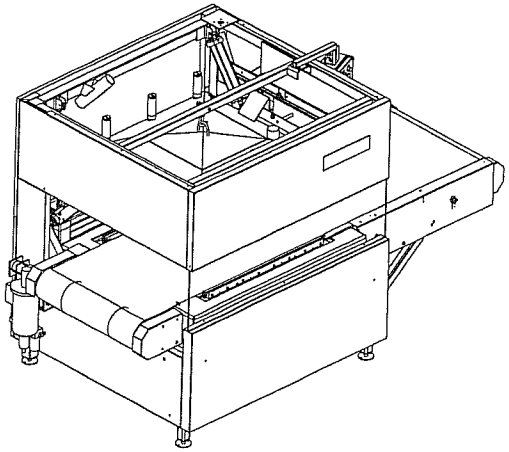

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