LAPIERRE

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PNEUMATIC BOTTLER SYSTEM

Manual and Digital Control

Pneumatic Bottler System
Digital Control

USER MANUAL

November **2024** | Version **01**

LAPIERRE

naturally innovative

Naturally innovative

A leader in equipment and products for the maple syrup industry, LAPIERRE EQUIPMENT distinguishes itself by its ability to innovate and develop high-performance solutions. This is what enables it to make significant changes in production techniques and processes in order to increase crop yield of high quality syrup.

LAPIERRE EQUIPMENT has a wealth of experience accumulated over three generations of maple syrup producers. These are also people driven by passion and a deep desire to help the industry evolve with the utmost respect for nature.

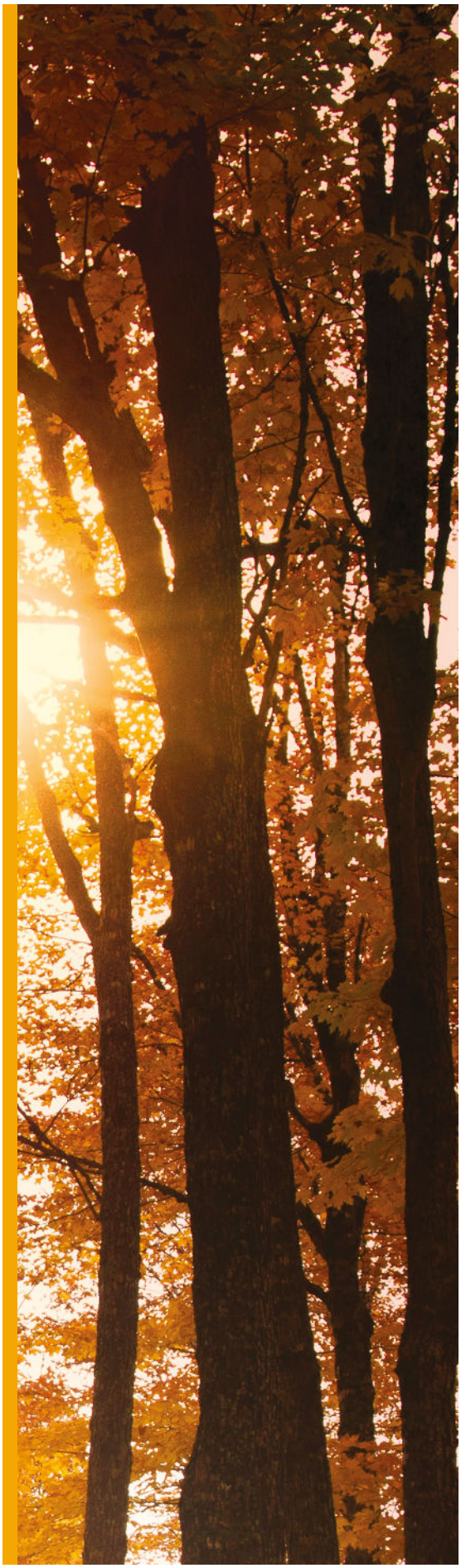
Honoured to serve your customers

LAPIERRE EQUIPMENT is honoured to actively assist maple syrup producers during the sugar season.

Today you have made a wise choice for at least two good reasons: the superior quality of our products and the exceptional quality of all our expert advisers in the region.

We sincerely appreciate your trust. And we will be happy to serve you again in your future equipment purchases, regardless of the size of your sugar bush.

Thank you!



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PNEUMATIC BOTTLER SYSTEM

Manual and Digital Control

Please note the information required below when dealing with customer service professionals. You can easily find this information on the **data plate** on your PNEUMATIC BOTTLER SYSTEM as well as on **your invoice**. You can also refer to *Section 1* of this manual for additional information.

The model shown may differ from your model.

IMPORTANT INFORMATION ABOUT YOUR PNEUMATIC BOTTLER SYSTEM

Customer Service: 819 548.5454 | 1 833 548.5454 | info@elapierre.com

Model number: _____

Serial number: _____

Purchase date: _____

Invoice number: _____

We will be pleased to answer any of your questions, please do not hesitate to contact us.

PRACTICAL VIDEO GUIDES
PNEUMATIC BOTTLER SYSTEM

There are three ways to view our videos.

Method No. 1: QR codes

- Open your smartphone photo application.
- Point to the QR code below.
- Click on the link appearing on the screen.
- This will take you to the YouTube application for our video.

Method No. 2: PDF electronic version

- If you are viewing this document in PDF format, click on the hyperlink below.

Method No. 3: Our website

- Go to our website: elapierre.com.
- Go to the DOCUMENTS tab, then to the VIDEOS tab.
- Here you will find several videos, including the following.

LAPIERRE PNEUMATIC BOTTLER SYSTEM – PRESENTATION AND BEST PRACTICE

PDF Version: CLIC HERE.

LAPIERRE PNEUMATIC BOTTLER SYSTEM – USER GUIDE

PDF Version: CLIC HERE.

PNEUMATIC BOTTLER SYSTEM

• **LATEST VERSION OF THIS USER'S MANUAL:** Please refer to our website for the latest version of this user's manual.

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SECTION 1 WHERE TO FIND INFORMATION ABOUT YOUR EQUIPMENT

When you contact our customer service professionals, it is important to have certain information about your equipment on hand as you will be asked for it.

You can easily find this information on the **data plate** on your pneumatic bottler system as well as on **your invoice.**

Information about your equipment	**Data plate** (affixed to your equipment)	**Invoice**
Model number	✓	✓
Serial number	✓	✓
Purchase date	–	✓
Invoice number	–	✓
MODELS		
Manual control	–	✓
Digital control	–	✓
OPTIONS		
10 mm Fill valve(s)	–	✓
15 mm Fill valve(s)	–	✓
Additional shelf(ves)	–	✓

2.1 INSTRUCTIONS

- It is important to read, understand and follow the instructions and warnings contained in this user manual.
- This manual must be stored in a known place and accessible at all times by staff.
- All product operators must be familiar with the contents of this manual.
- Certain instructions may not apply to your equipment, depending on your model.

2.2 WARNING

Electricity

- Before turning On the equipment, check the power supply specifications. You will find these specifications on your bottler system data plate. Also check the specifications of the electrical circuit you intend to use. Then make sure that the two components are compatible.
- Never connect the electrical cords to overloaded electrical circuits.
- Never use extension cords that are longer than necessary or of low gauge.
- Make sure that the electrical cords are in good working order, that they are not pinched or stripped, and that they are not altered in any way that could affect their safe use.
- Never touch a stripped wire when it is live. Then turn Off the power and repair the equipment before turning it back On and using it.
- The user must check the grounding circuit. Some equipment must be used or connected to other equipment that is also equipped with a grounding circuit. Disabling or a malfunctioning of this circuit may cause equipment operating conditions that are hazardous to its users.
- Always unplug the power cord from the equipment when it is not going to be used for a long period of time.
- Never connect or disconnect the pneumatic bottler system when your hands are wet.

Liquids

- Never expose the equipment to rain or excessive condensation.
- Never bring liquids into contact with the electronic components.
- Unless otherwise specified, never submerge the electrical components of this equipment.

Other

- Always keep hair, hands, and jewellery away from equipment components that are operating, or may unexpectedly start up.
- Never place heavy objects on your equipment as their weight could damage parts of your pneumatic bottler system.

2.3 REPAIRS AND MAINTENANCE

- Stop using the equipment immediately if a malfunction is detected.
- Only LAPIERRE EQUIPMENT authorized personnel may carry out repairs on this equipment.
- Unauthorized modifications or repairs may result in hazardous operating conditions. These conditions may also cause varying degrees of injury to users.
- Always disconnect the power supply before performing any maintenance or repairs.
- It is recommended that equipment inspections and maintenance be carried out diligently to ensure optimal operational integrity. Refer to *Section 5: Equipment cleaning* for more information.
- Never disassemble the electrical components of this equipment.

PROTECT CHILDREN

- Never allow children to use this equipment.
- Never leave children unattended in proximity to this equipment, whether it is switched On or not.

SECTION 3 **EQUIPMENT INSTALLATION; PARTS DESCRIPTIONS AND CODES**

To reduce the risk of fire, electric shock or injury, it is very important to observe the following instructions when installing your equipment.

- The installation of the power supply must be done by a properly qualified contractor. The work must be carried out in accordance with the local regulations in effect.
- If you have to work in existing walls and ceilings, be careful not to damage electrical conduits or other utilities that may be present.

Your pneumatic bottler system must be **SAFELY INSTALLED ON A HORIZONTAL AND PERFECTLY STABLE SURFACE**. If it tips or tilts, it may cause severe injury or burns to the operator and others in the vicinity of the equipment.

Illustration 1 below shows a typical installation for a pump-fed bottler system followed by a filtration system.

Note the equipment sequence:

➔ ELECTRIC WATER JACKETED BOTTLING TANK (*Illustration 1 No. 2*)

➔ PUMP (*Illustration 1 No. 3*)

➔ FILTRATION SYSTEM (*Illustration 1 No. 4*)

➔ BOTTLER SYSTEM (*Illustration 1 No. 1*)

The pump draws its syrup from an electric water jacketed bottling tank, the ideal equipment for maintaining the temperature required to encapsulate the syrup. This temperature must be at least 85 °C (185 °F).

Microfiltration technology uses a filter fabric with a mesh size of just one micron, or one millionth of a meter. This micro measurement produces maple syrup of almost absolute transparency, leaving a natural deposit that is virtually imperceptible, even when using unpatterned glass bottles.

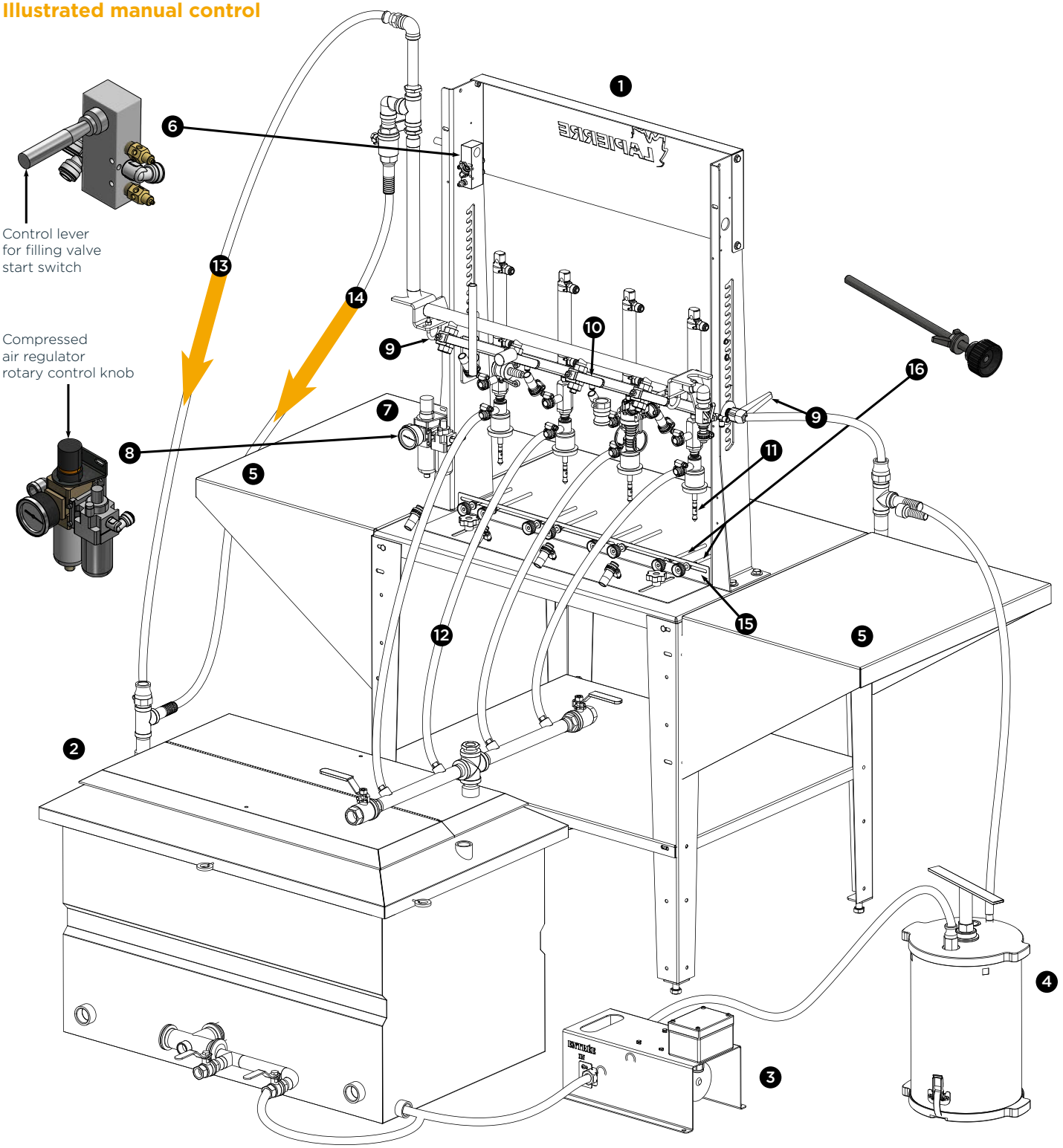
It is important to **RESPECT THE INSTALLATION INSTRUCTIONS OF THE PUMP AND FILTER SYSTEM MANUFACTURERS** when setting up your bottling equipment.

PARTS CODES AND DESCRIPTIONS

Equipment illustrated below:	Pneumatic bottler system manual control
Illustrated model number:	**EM**100-160102**KT**
Illustrated configuration:	With 2 additional shelves and 4 valves (optional shelves and valves)

ILLUSTRATION 1 | Typical installation, pneumatic bottler system

BACK VIEW
Illustrated manual control



No.	Qty	Description of component or part
1	1	Pneumatic bottler system
2	1	Electric water jacketed bottling tank
3	1	Pump
4	1	Filtration system
5	2	Additional shelf (optional)
6	1	Filling valve start switch
7	1	Compressed air supply valve (open/closed) (not visible)
8	1	Compressed air regulator
9	2	Filling valve height adjustment lever
10	4	Filling valve feed valve
11	4	Filling valve (optional)
12	4	Overflow drainpipe
13	1	Air return pipe
14	1	Syrup return pipe
15	1	Depth shaft adjustment stop (vertical plate)
16	8	Left-right axis adjustment stop (threaded rod) (4 pairs)

ILLUSTRATION 2 | 10 mm filling valve with fastener 3/8 in.-24

Illustrated Model | **EM**245-062410**XX**

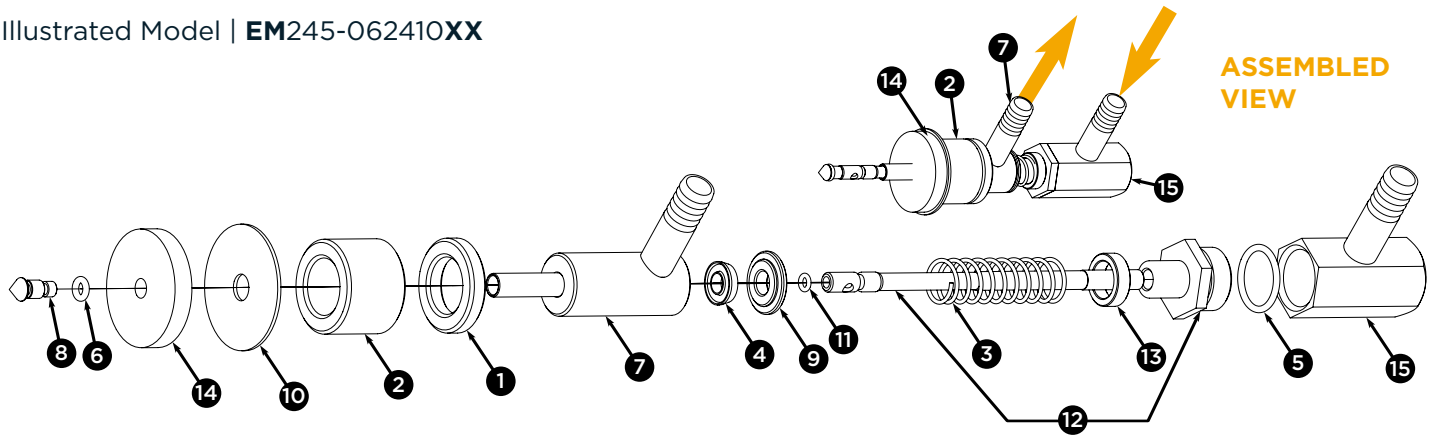


TABLE 1 | 10 mm filling valve, parts descriptions and codes

No.	Qty	Parts description	Dimension	Parts code
		10 mm filling valve (complete unit)		**EM**245-062410**XX**
		Complete set of U-cup (1) and O-rings (3) for 10 mm filling valve		**DV**201-100245**XX**
1	1	Nut, PVC, 0.300 in., for height adjustment ring for 3/8 and 9/16 in. filling valves, interior dimension 0.921 in.		**EM**345-060902**P**1
2	1	Height adjustment ring for 3/8 and 9/16 in. filling valves, PVC, interior dimension 0.921 in.	1.125 in.	**EM**345-060903**P**1
3	1	Compression spring, stainless steel, 0.720 x 0.065 in.	3 in.	**BU**286-653000**S**6
4	1	U-cup, 18700312**Q**, interior dimension 5/16 in.	11/16 X 3/16 in.	**DV**200-187312**XX**
5	1	O-ring, No. 118, Viton		**DV**201-000118**V**1
6	1	O-ring, No. 106, Viton		**DV**201-000106**V**1
7	1	Overflow return, stainless steel, for 3/8 in. turbo filling valve		**EM**545-060010**SS**
8	1	Plug, stainless steel, 0.842 in., for 3/8 in. turbo filling valve		**EM**545-060001**S**1
9	1	Compression spring guide, stainless steel, for 10 mm filling valve, interior dimension 0.375 in.		**EM**545-060008**S**1
10	1	Washer, stainless steel, for 3/8 in. filling valve, interior dimension 0.400 in.	2 in.	**EM**345-320400**S**5
11	1	O-ring, No. 007, Viton		**DV**201-000007**V**1
12	1	Filling kit for 3/8 in. turbo filling valve		**EM**545-060716**SS**
13	1	Tension spacer, PVC, for 3/8 and 9/16 in. filling valves	1/4 in.	**EM**345-060919**P**3
14	1	Sealing washer, blue silicone, for 3/8 in. filling valve, 0,325 x interior dimension 0.250 in.	1.875 in.	**EM**345-060104**U**3**L**
15	1	Inlet assembly, stainless steel, for 3/8, 9/16 and 7/8 in. filling valves	1/2 in.	**EM**345-000911**SS**

ILLUSTRATION 3 | 15 mm filling valve with fastener 3/8 in.-24

Illustrated model | **EM**245-062415**XX**

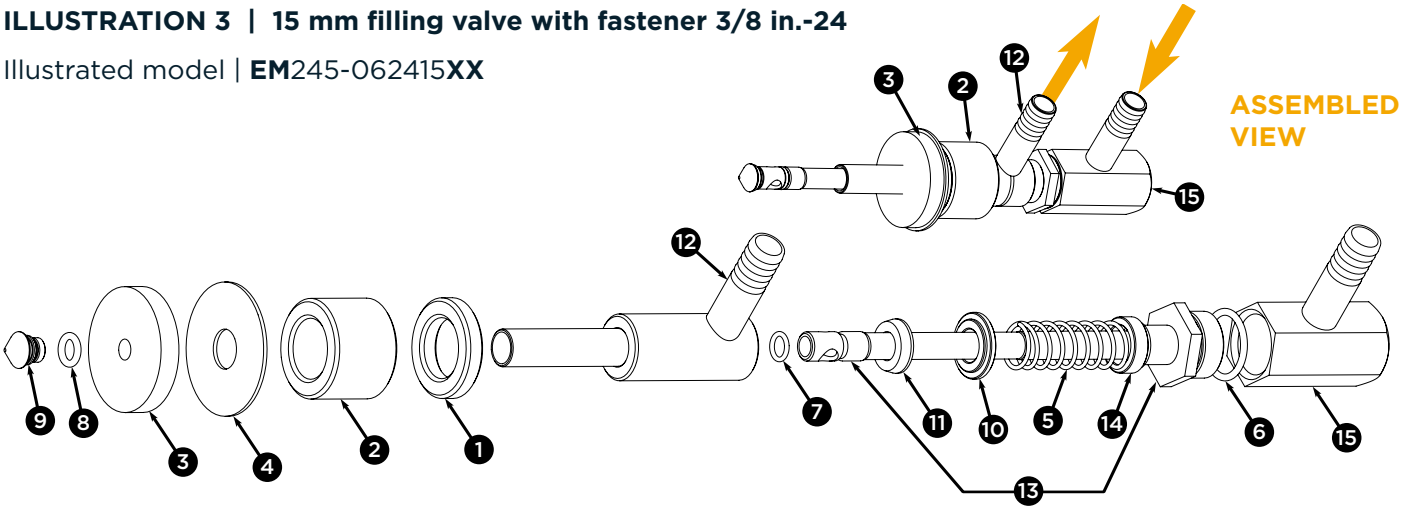


TABLE 2 | 15 mm filling valve, parts descriptions and codes

No.	Qty	Parts description	Dimension	Parts code
		15 mm filling valve (complete unit)		**EM**245-062415**XX**
		Complete set of U-cup (1) and O-rings (3) for 15 mm filling valve		**DV**201-150245**XX**
1	1	Nut, PVC, 0.300 in., for height adjustment ring for 3/8 and 9/16 in. filling valves, inside dimension 0.921 in.		**EM**345-060902**P**1
2	1	Height adjustment ring for 3/8 and 9/16 in. filling valves, PVC, interior dimension 0.921 in.	1.125 in.	**EM**345-060903**P**1
3	1	Sealing washer, blue silicone, for 3/8 in. filling valve, 0.325 x interior dimension 0.250 in.	1.875 in.	**EM**345-060104**U**3**L**
4	1	Washer, stainless steel, for 9/16 in. filling valve, interior dimension 0.600 in.	2 in.	**EM**345-320600**S**5
5	1	Compression spring, stainless steel, 0.720 x 0.065 in.	3 in.	**BU**286-653000**S**6
6	1	O-ring, No. 118, Viton		**DV**201-000118**V**1
7	1	O-ring, No. 011, Viton		**DV**201-000011**V**1
8	1	O-ring, No. 109, Viton		**DV**201-000109**V**1
9	1	Plug, stainless steel, 0.617 in., for 9/16 in. turbo filling valve		**EM**545-090001**S**1
10	1	Compression spring guide, stainless steel, for 15 mm filling valve, interior dimension 0.500 in.		**EM**545-090008**S**1
11	1	U-cup, 18700437, interior dimension 0.437 in.	0.812 x 0.187 in.	**DV**200-187437**XX**
12	1	Overflow return, stainless steel, for 9/16 in. turbo filling valve		**EM**545-090010**SS**
13	1	Filling kit for 9/16 in. turbo filling valve		**EM**545-090716**SS**
14	1	Tension spacer, PVC, for 3/8 and 9/16 in. filling valves	1/4 in.	**EM**345-060919**P**3
15	1	Inlet assembly, stainless steel, for 3/8, 9/16 and 7/8 in. filling valves	1/2 in.	**EM**345-000911**SS**

TABLE 3 | Filling valves 3/8, 9/16 and 7/8 in., parts codes

Although the models of these filling valves are discontinued, seal sets are still available.

Parts description	Parts code
Complete set of U-cup (1) and O-rings (3) for filling valve 3/8 in.	**DV**201-060245**XX**
Complete set of U-cup (1) and O-rings (3) for filling valve 9/16 in.	**DV**201-090245**XX**
Complete set of U-cup (1) and O-rings (3) for filling valve 7/8 in.	**DV**201-140245**XX**

If you are installing your bottler system for the first time, you must first connect the pipes. Note that the four overflow drainpipes and the two air and syrup return pipes (*Illustration 1 Nos. 12-13 and 14*) are all of the same type and included with your equipment.

NOTE | Additional piping is available from your LAPIERRE EQUIPMENT distributor.

NOTE | See *Appendix A* for a CHECK LIST on the steps involved in starting up and installing the bottler system.

Connecting the pipes

1. First connect the 4 overflow drainpipes (*Illustration 1 No. 12*) between the overflow return (*Illustration 2 No .7*) of the bottler system and the water jacketed bottling tank (*Illustration 1 No. 2*).

NOTE | Before cutting a pipe for installation, be aware of the conditions illustrated in the following warning.

DRAINING PIPES from the bottler system to the water jacketed bottling tank must have a **CONTINUOUS DESCENDING SLOPE**. To correct a situation where the pipes have a hollow where syrup could accumulate, simply move the equipment carefully away from each other, so that the pipes are not excessively taut.

2. Then connect the two return air (*Illustration 1 No. 13*) and syrup (*Illustration 1 No. 14*) pipes, which are used when the filling valves (*Illustration 1 No. 11*) are off.
3. Finally, depending on your installation's equipment, connect the piping (not supplied) between the water jacketed bottling tank and the pump (*Illustration 1 No. 3*), between the pump and the filtration system (*Illustration 1 No. 4*), and between the filtration system and the bottler system, as shown in *Illustration 1*.

Hot syrup can cause severe burns. Always wear **SAFETY GOGGLES** and **HEAT-RESISTANT GLOVES AND CLOTHING** when working with this equipment.

Be especially cautious with other **PEOPLE NEAR THE EQUIPMENT**, whether they are children, family members, guests, as well as with pets.

It is important to adhere to the **OPERATING INSTRUCTIONS** of the **PUMP AND FILTER SYSTEM MANUFACTURERS** when using your bottler equipment.

INSTRUCTIONAL VIDEOS | Please note that two short explanatory videos are available on our website. Go to page 2 to view them.

4.1 STEPS TO BE TAKEN WHEN INSTALLING EQUIPMENT OR CHANGING CONTAINERS

The following steps are to be carried out when installing the equipment, or if you change the container when re-using it. These steps apply to both manual and digital control models.

See *Appendix A* for a checklist of steps to follow when starting up your bottler system.

4.1.1 Adjusting valve height

Adjust filling valve height (*Illustration 1 No. 11*).

- Using the two filling valve height adjustment levers (*Illustration 1 No. 9*) located on either side of the head of your bottler system, first adjust the height of the valve assembly support stand so that one of your containers or bottles can be placed freely under one of the valves.
- Then place a container under one of the valves so that the valve can be inserted freely into the neck of the container as it descends.

NOTE | This position on the bottling table, centered under the valve, will be used for the following step 4.1.2.

- Then set the height of the filling valves so that the end of the valve is about 2.54 cm (1 in.) above the neck of the container or bottle.
- When filling the container, the valve springs are compressed to around 90% of their total length. This compression allows the sealing washer assembly (*Illustrations 2 No. 14 or 3 No. 3*) to rest firmly on the container neck during filling.

4.1.2 Positioning the stops

Position the depth and left-right axis adjustment stops (*Illustration 1 Nos. 15 and 16*) so as to align the container neck vertically with the filling valves.

- The valve must fit freely in the center of the neck.
  - First adjust the depth shaft by moving its adjustment stop (the vertical plate) (*Illustration 1 No. 15*) forwards or backwards, on which the rear of the container rests when facing the bottler system.
  - Then adjust the left-right axis by moving each of the two stops (the threaded rods) (*Illustration 1 No. 16*) to the left or right, so that the container body fits snugly between the two stops.

4.1.3 Adjusting compressed air pressure

Adjust pressure using compressed air regulator (*Illustration 1 No. 8*).

- adjust the pressure to ensure the necessary sealing of the sealing washer (*Table 1 No. 14*) when filling your containers or bottles.
  - Set this pressure using the rotary control knob on the top of the compressed air regulator (*Illustration 1 No. 8*).
    - ✓ INCREASE pressure by turning the knob to the RIGHT.
    - ✓ DECREASE pressure by turning the knob to the LEFT.
  - If leakage occurs during filling, consult the Troubleshooting Kit, *Section 6.3 point No. 2*.
- Among other things, the pressure you choose must take into account the type of material your container is made of. Plastic, which is more flexible than glass, necessarily requires less pressure.

NOTE | It may be useful to note, in *Appendix A*, the pressure used for each type of container.

4.1.4 Adjusting the syrup level in the container

Here's how to adjust the syrup level in the containers below each valve.

1. Visually determine the liquid level in one of the containers you intend to use. To do this, proceed as follows:
   a. hand-fill a container with the required number of millilitres,
   b. mark the level to be reached on your container.
2. Place an empty container under one of the filling valves.
3. Switch on pump.
4. Turn the control lever for filling valve start switch (*Illustration 1 No. 6*) downwards.
   - The container fills up and the excess flows out through the overflow drainpipe (*Illustration 1 No. 12*).
5. Move the start switch control lever upwards to stop filling. Valves return to original position.
6. Adjust the syrup level in the filled container according to the result of step 1.
   a. To do this, use the height adjustment ring (*Illustrations 2 No. 2 or 3 No. 2*).
      i. To INCREASE syrup level: turn counter-clockwise.
         - The filling valve (*Illustration 1 No. 11*) below the sealing washer rises and is therefore **shorter**.
         - Since it is **shorter**, there will be more syrup in the container.
      ii. To DECREASE syrup level: turn clockwise.
         - The filling valve (*Illustration 1 No. 11*) below the sealing washer descends and is now **longer**.
         - Since it is **longer**, there will be less syrup in the container.

b. Repeat one or more filling tests, if necessary, until the level conforms to the result of step 1.

c. Then adjust the height of the other valves to match the one you have just adjusted.

4.2 STEPS TO TAKE EACH TIME YOU USE YOUR PNEUMATIC BOTTLER SYSTEM

The following steps must be carried out each time your bottler system is used. These steps apply to both manual and digital control models.

4.2.1 Water jacketed bottling tank: bring the maple syrup to the required temperature

If using a water jacketed bottling tank, make sure the water level covers the heating element(s) before switching them on.

- Turn on the power, bring the maple syrup to a temperature that allows the cap to be screwed on while the syrup is at **LEAST 85 °C (185 °F) IN THE CONTAINER**.
  - Check the temperature of a syrup sample using a thermometer (not supplied).

4.2.2 Lubricating pistons

It is essential to lubricate the pistons of your bottler system with a food-grade lubricant a few times during the bottling operation. For example, lubricate:

- filling valve pistons, located inside compression springs (*Table 1 No. 3*),
  - these pistons are uncovered when your bottler system is paused,
- and upper cylinder pistons,
  - to lower and gain access to the pistons, turn control lever for filling valve start switch (*Illustration 1 No. 6*) downwards when there are no containers under the filling valves. Proceed with lubrication. Then move the start switch control lever upwards to replace the pistons in their cylinders.

NOTE | During the bottling operation, we recommend lubricating the pistons a few times.

4.2.3 Warming up components and valves

At the outlet of the filling valves, the syrup should have approximately the same temperature as that of the syrup in the water jacketed bottling tank.

NOTE | An optional thermometer can be installed at the outlet of a filling valve. Thermometers are available from your LAPIERRE EQUIPMENT distributor.

To keep the temperature more or less the same, it is necessary to heat all the components in which the syrup circulates between the water jacketed bottling tank and the valves.

- **Heating of circulation components excluding filling valves**

  Start by using your bottler system in recirculation mode. To do this, simply:

  - close all feed valves to the filling valves (*Illustration 1 No. 10*),
  - let the syrup recirculate for a few minutes in the equipment.

- **Filling valve heating**

  The next step is to warm up the filling valves. To do this, simply bottle a few containers under each valve and transfer them to the water jacketed bottling tank.

  NOTE | Please refer to the next section: *Adjusting the filling speed.*

4.2.4 Adjusting the filling speed

At the same time as you warm up the filling valves in the previous section, where you bottle a few containers and transfer them to the water jacketed bottling tank, you need to adjust the syrup outlet speed from the filling valves, one by one.

The aim is for all containers to finish filling at the same time. To achieve this, simply adjust the syrup outlet speed of each valve using the feed valves of the filling valves. (*Illustration 1 No. 10*).

Use the fastest-filling valve as a reference. Adjust the other valves accordingly.

4.2.5 Adjust filling setpoint time (DIGITAL control only)

In digital mode, the containers are filled according to a set time defined by the operator. This time is the same for all valves. When the time has elapsed, the valves automatically return to their original position.

To calculate the filling setpoint time, proceed as follows:

1. Place a container under one of the valves.
2. Carry out a filling operation using the JOG button (*Illustration 5 No. 3*) and time the filling of your container in seconds (e.g. 8 seconds).
3. Add one second to the count (e.g.: 8 + 1 = 9 seconds) and configure this filling setpoint time using the controller on the control panel. (*Illustration 5 No. 4*).

To configure the setpoint time at the controller, proceed as follows:

- Press the four time setting buttons in succession (*Illustration 4 Nos. 3a-b-c-d*) to set the desired time in seconds, i.e. 9 seconds in our example.

  [0 0 9 . 0]

  - Press the up button to increase the value.
  - Press the bottom of the button to decrease the value.

In our example, the settings would be as follows:

- Button 3a = 0
- Button 3b = 0
- Button 3c = 9
- Button 3d = 0

The green digits (*Illustration 4 No. 2*) will then indicate: [0 0 9 . 0] seconds.

Following this step, the setpoint time is configured.

ILLUSTRATION 4 | Digital control system display-controller

The second is the factory-set time unit for the controller.

No.	Description	Action
1	Current value	Displays the remaining value of the current filling operation, and the unit of time (sec.). - The time is therefore reduced from 9.0 to 0.0 seconds in our example.
2	Setpoint value	Displays configured filling time setpoint and time unit (sec.).
3	Time setting buttons (4) (a, b, c and d)	Used to set each digit of the setpoint for the filling time.

Please note that further information is available in the original manufacturer's User Manual supplied with your bottler system.

4.3 BOTTLING MAPLE SYRUP

4.3.1 About caps and sterilisation

The cap should be screwed on when the syrup is at **a temperature of at least 85 °C (185 °F) in the container.** When filling, the container will necessarily cool the syrup by a few degrees. The smaller the container, the faster the syrup cools. So it's a good idea to put the syrup in the container when it's a few degrees above 85 °C (185 °F).

The sterilization process begins when the cap comes into contact with the hot syrup. To do this, immediately after putting on the cap, leave the bottle upside down in its box or on its side until the syrup reaches room temperature. This is also when the syrup is pasteurized.

4.3.2 Pneumatic bottler system with MANUAL control

Here's the procedure to follow for bottling your containers under MANUAL control.

1. Place containers or bottles at the stops (*Illustration 1 Nos. 15 and 16*) under the filling valves (*Illustration 1 No. 11*).
2. Turn the control lever for filling valve start switch (*Illustration 1 No. 6*) downwards.
   - Valves descend and fill containers.
3. When the syrup level reaches the limit set by the operator (see *Section 4.1.4*), the syrup flows out through the overflow drainpipe (*Illustration 1 No. 12*). At this point, turn up the control lever for filling valve start switch.
   - Valves return to their original position.
4. Replace full containers with empty ones.
   - Screw the caps onto the full containers without delay and place them upside down or on their sides.
5. Repeat sequence 1 to 4 as required.

4.3.3 Pneumatic bottler system with DIGITAL control

Here is the procedure to follow for bottling your containers under DIGITAL control.

1. Place containers or bottles at the stops (*Illustration 1 Nos. 15 and 16*) under the filling valves. (*Illustration 1 No. 11*).
2. Press the green [START] push-button (*Illustration 5 No. 1*) to start the bottling process.
   - Valves descend and fill containers.
   - When the filling time has elapsed, the valves return to their original position.
3. Replace full containers with empty ones.
   - Screw the caps onto the full containers without delay and place them upside down or on their sides.
4. Press the green [START] push-button again to continue the bottling process.
5. Repeat sequence 1 to 4 as required.

ILLUSTRATION 5 | Digital control panel

No.	Description and type	Action
1	START, Push-button	Activates digital bottling operation by pressing once on push-button
2	STOP, Push-button	Ends a bottling sequence. The valves then return to their original position.
3	JOG, Push-button (See NOTE below)	Allows manual verification of the digital bottling operation. Also allows definition of container filling setpoints (see *Section 4.2.5*).
4	Controller-display	Controller for adjusting the setpoint time for filling valves in your bottler system (see *Section 4.2.5*). It also displays the remaining value, in seconds, of the current filling operation.

NOTE | The JOG push-button is used to manually test the bottling sequence, either in continuous advance or in a repeat pulse test run. Hold and release your finger on the push-button as required.

EXERCISE CAUTION BEFORE ACTIVATING THE JOG PUSH-BUTTON. Manual operation with this key involves certain risks. To avoid accidents and injuries, make sure no one is near the equipment.

SECTION 5 **EQUIPMENT CLEANING**

See *Appendix B* for a checklist of steps to follow when cleaning your bottling system.

1. Immediately after use, switch off the water jacketed bottling tank heating elements and run hot water through the heating tank to rinse and clean the interior walls and bottom.
2. Simultaneously with step 1, bottle and decant a few containers to rinse and clean the filling valves. Then recirculate the hot water for a few extra minutes to thoroughly rinse and clean the equipment.
3. **IF REQUIRED |** Once completed, continue the cleaning operation by removing the sealing washer (*Illustration 2 No. 14*) and the height adjustment ring (*Illustration 2 No. 2*) from filling valves requiring cleaning. Clean washers and rings only if they have accumulated material.
   - Soak disassembled parts in hot water and clean thoroughly.
   - **IT IS VERY IMPORTANT TO CARRY OUT THIS STEP CAREFULLY**. The build-up of material on these components will inevitably cause them to malfunction the next time they are used.

   NOTE | Removing the adjustment ring for cleaning will require readjusting its height the next time you use it. (*Section 4.1.4*).
4. Clean syrup filtration system according to manufacturer's instructions.
5. Clean pump according to manufacturer's instructions.
6. Lubricate silicone seals with a food-grade lubricant to prevent drying out and cracking.
7. Drain cleaning water from the water jacketed bottling tank and rinse.
8. The stainless steel components of your equipment must be cleaned using a product specially designed for this purpose. **Do not use flammable liquids.**
   - Never use abrasive products, products containing chlorine or muriatic acid (also called hydrochloric acid) to clean the components of your bottling system.
   - The use of wire brushes and steel wool should also be avoided.

During prolonged storage, even the slightest **CLEANING PRODUCT RESIDUE ON ALL COMPONENTS** will obviously lead to inconvenience and damage at the beginning of the next season. Rinse each cleaned component thoroughly.

6.1 FILL LEVEL NOT ADEQUATE

Solution

Readjust container fill level using height adjustment ring (*Illustration 2 No. 2*).

6.2 INSUFFICIENT FILLING FLOW

Solutions

1. Check that the syrup level in the water jacketed bottling tank is sufficient to feed the pump.
2. Check that the pump is operating normally and that the syrup is flowing smoothly from the drainpipe into the filtration system.
3. Check that the filtration system is operating normally and that the syrup is flowing smoothly from the drainpipe to the master feed valve of your bottler system.

6.3 SYRUP LEAKS ON THE OUTSIDE OF THE CONTAINER DURING FILLING

1. Flow may be caused by a distorted piston-container vertical axis. This causes the sealing washer to press unevenly against the neck contour. A localized leak appears where the pressure is insufficient.

   Solution

   Check the verticality of the piston-container axis and correct the situation.

2. Insufficient air pressure on the sealing washer (*Illustration 2 No. 14*), which rests on the neck of the container, can result in syrup leaking out of the bottle during the filling cycle.

   Solution

   Gradually increase pressure using the rotary control knob on the compressed air regulator (*Illustration 1 No. 8*) until the flow stops.

   Increase pressure by turning the knob to the right. Decrease pressure by turning knob to the left.

6.4 CONTAINER MOVES WHEN THE VALVE IS REMOVED

Excessive compressed air pressure can exert a force on containers, causing them to move when filling valves are removed. It could also displace containers during filling.

Solution

Gradually reduce pressure using the rotary control knob on the compressed air regulator (*Illustration 1 No. 8*) until the situation is corrected.

Decrease pressure by turning knob to the left. Increase pressure by turning knob to the right.

PNEUMATIC BOTTLER SYSTEM

	Filling valve(s)	Model number
MODEL	**Valve(s)**	
Manual control	Up to 4	**EM**100-160102**KT**
Single bottler system with manual control and bottle guide	1	**EM**306-020506**CMS**
Digital control	Up to 4	**EM**100-160102**CN**

OPTIONS

Filling valve(s)	**Valve(s)**	
10 mm filling valve(s)	Up to 4	**EM**306-062410**KT**
15 mm filling valve(s)	Up to 4	**EM**306-062415**KT**
Additional shelf(ves)	**Shelf(ves)**	
Additional shelf(ves) 45.72 cm (18 in), stainless steel	Up to 2	**EM**306-161804**KT**

Specifications are subject to change without notice.

GENERAL WARRANTY
(WARRANTY CERTIFICATE)

1. Two-year limited warranty
2. One-year limited warranty
3. Three-month limited warranty
4. Original manufacturer's warranty
5. Other warranty
6. Warranty transferability
7. Eligibility for warranty repairs and modifications
8. Exclusions to the warranty certificate
   - 8.1 Observed conditions
   - 8.2 Expenses and losses
   - 8.3 Evaporators
   - 8.4 Extractors and transfert tanks
9. Products without warranties
10. **WARRANTY SUMMARY TABLE**
11. Disclaimer
12. Submitting your warranty claim

KEEP YOUR PURCHASE INVOICE It is very important to keep the original invoice for the purchase of your equipment or a legible copy of it. **Otherwise, LAPIERRE EQUIPMENT INC. will not accept your warranty claim.**

The term MANUFACTURER is used for LAPIERRE EQUIPMENT to simplify the text.

1. TWO-YEAR LIMITED WARRANTY

The MANUFACTURER warrants that *all new products that it manufactures* are free of defects in manufacturing, materials, and workmanship. The warranty is valid for the end user for a period of two years, on parts and workshop labour, from the date of invoice of the product.

Furthermore, the warranty on parts and labour carried out on site, at the customer's location, is valid for a period of up to two years, depending on the product.

The warranty only applies when the product meets normal conditions of installation, use, and maintenance.

PRODUCT DEFECT | The appearance of a defect before the expiry date of the warranty must be reported to the MANUFACTURER immediately. The latter then repairs or replaces the defective parts with new equivalent parts.

DEFECTIVE PARTS | The defective parts replaced become the property of the MANUFACTURER. They are recovered during the after-sales service operation.

AESTHETICS | The aesthetic appearance of the products — parts and equipment — is covered by a 5-day warranty from the date of invoice.

Refer to *Section 10 — WARRANTY SUMMARY TABLE* for more information about the warranties.

2. ONE-YEAR LIMITED WARRANTY

NEW PRODUCTS AND EQUIPMENT | This warranty applies to certain products from our suppliers, certain wearing parts of our evaporators, extractor pumps, and certain labour services performed either by the MANUFACTURER or one of our suppliers.

The MANUFACTURER warrants that all new products are free of defects in manufacturing, materials, and workmanship. The warranty is valid for the end user for a period of one year, on parts and labour, from the date of invoice of the product. It only applies when the product meets normal conditions of installation, use, and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS, DEFECTIVE PARTS*, and *AESTHETICS* also apply.

USED PRODUCTS AND EQUIPMENT | This warranty applies to used products, unless otherwise stated.

The MANUFACTURER warrants that all used products are free of defects in manufacturing and materials. The warranty is valid for the end user for a period of one year, on parts and workshop labour, from the date of invoice of the product. It only applies when the product meets normal conditions of installation, use, and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS* and *DEFECTIVE PARTS* apply. *The AESTHETICS* provision does not apply.

OUT-OF-WARRANTY REPAIRS | This warranty also applies to out-of-warranty repairs, unless otherwise stated.

The MANUFACTURER warrants all out-of-warranty repairs for a period of one year, on parts and workshop labour, from the date of invoice of the repair. It only applies when the product meets normal conditions of installation, use, and maintenance.

The provisions of *Section 1 — PRODUCT DEFECTS* and *DEFECTIVE PARTS* apply. *The AESTHETICS* provision does not apply.

Refer to *Section 10 — WARRANTY SUMMARY TABLE* for more information about the warranties.

3. THREE-MONTH LIMITED WARRANTY

Hardware and accessories from suppliers.

4. ORIGINAL MANUFACTURER'S WARRANTY

Tools and instruments from suppliers.

5. OTHER WARRANTY

Collection tubing and fittings have their own warranty — warranty certificate. Refer to the document: *WARRANTY CERTIFICATE — Collection tubing and fittings*.

6. WARRANTY TRANSFERABILITY

This warranty is transferable and applicable upon presentation of the original purchase invoice or a legible copy of it.

7. ELIGIBILITY FOR WARRANTY REPAIRS AND MODIFICATIONS

To be eligible for the warranty, any warranty repair or modification must MANDATORILY BE APPROVED BEFOREHAND by the MANUFACTURER, whether it is carried out by one of ITS AUTHORIZED DISTRIBUTORS or by other third parties.

8. EXCLUSIONS TO THE WARRANTY CERTIFICATE

8.1 OBSERVED CONDITIONS

This warranty becomes null and void when one or more of the following conditions are observed.

8.1.1 An altered, modified, or removed serial number

8.1.2 A product damaged by:

8.1.2.1 The user

- Usage deemed abusive or negligent.
- An accident caused by the user.

8.1.2.2 Negligence in following the instructions in the user manual

- Negligence on the part of the user to follow the instructions in the user manual: safety instructions, equipment installation, start-up and operating procedures, equipment maintenance and cleaning, and all other recommendations provided by the MANUFACTURER.

8.1.2.3 The installation, modification, or repair of the equipment

- Installation in a location unsuitable for normal use.
- A modification or repair not authorized by the MANUFACTURER.

8.1.2.4 A non-compliant equipment part

- The use of equipment parts other than the original parts from the MANUFACTURER.
- The use of equipment parts obtained through a service centre, technician, or distributor not authorized by the MANUFACTURER.
- The use of equipment parts likely to alter or damage the equipment.

8.1.2.5 An electrical problem

- A variation, an electrical surge, or excessive voltage.
- Poor quality of the power supply or electrical connection.

8.1.2.6 A problem with the cleaning products

- The use of cleaning products or acids likely to alter or damage the equipment, or used without following the recommendations of their respective manufacturer.

8.1.2.7 Inappropriate storage of corrosive products

- Corrosive products such as chlorine, for example, must not be stored in the same room as your equipment.

8.1.2.8 An event beyond control

- Events which are beyond the control of the MANUFACTURER, such as a mechanical shock (impact, collision, vibrations), water damage or a flood, a fire, lightning, a storm, an earthquake, or any other natural or human disaster.

8.2 EXPENSES AND LOSSES

This warranty does not cover the following expenses or losses.

8.2.1 Expenses for:

- transporting the equipment to the repair site and bringing it back to the customer,
- making the product accessible during a service call,
- service calls for reasons other than those provided for in the warranty. The warranty applies when a flaw, malfunction, or defect in manufacturing, materials, or workmanship appears,
- service calls associated with product start-up at the beginning of the season and product shutdown at the end of the season or after the season. However, these expenses may be covered if they are specified in the purchase contract,
- service calls received upon expiry of the warranty,
- annual equipment tune-ups.

8.2.2 Losses:

- revenue losses caused by:
  - o maple sap harvest losses,
  - o syrup quality;
- production losses, in terms of quantity or quality, related to the provisions covered by this warranty.

8.3 EVAPORATORS

Please find below two conditions of exclusions to the warranty certificate specific to evaporators.

8.3.1 Use of inappropriate wood, agents, and fuels

This warranty becomes null and void if a defect appears caused by the use:

- of wood that is painted or treated, or which contains chemicals or adhesive substances (glue),
- of any agent added to the evaporators,
- of any material, substance or fuel other than natural wood, for wood-fired evaporators,
- of any fuel other than No. 2 fuel oil, for oil-fired evaporators.

8.3.2 Interior aesthetics of the pans

The interior aesthetic appearance of the pans is not covered by the warranty.

8.4 EXTRACTORS AND TRANSFER TANKS

The complete seal of an extractor or a transfert tank is not covered by this warranty.

9. PRODUCTS WITHOUT WARRANTIES

The MANUFACTURER does not offer any warranty on the following products:

- batteries installed on the equipment,
- pH sensors,
- electronic parts such as repair components purchased individually,
- products marked “Liquidation/Final sale” on the invoice — no returns, no warranty.

10. WARRANTY SUMMARY TABLE

The following *Warranty Summary Table* illustrates whether or not a warranty applies to a product or service, as well as its duration, if applicable.

WARRANTY SUMMARY TABLE

LAPIERRE naturally innovative	PARTS	LABOUR		
		In workshop	**On-site support** (diagnostic, repair)	**Remote support**
R. O. Concentrators	2 years	2 years	1 year	2 years
Datacer	2 years	2 years	No	2 years
Finishing and processing equipment, including maple cream makers, bottling systems, candy machines, water jacketed bottling tanks, etc.	2 years	2 years	1 year	N/A
Evaporators including parts and pan washers	2 years *Wearing parts*: 1 year*	2 years *Wearing parts*: 1 year*	2 years *Wearing parts*: 1 year* *Burners adjustment: 1 year*	2 years
Extractors	2 years *Pump: 1 year*	2 years *Pump: 1 year*	1 year	2 years
Vacuum pumps **	2 years	2 years	1 year	2 years
Tanks (basins)	2 years *Structure only*	N/A	2 years *Structure only*	N/A
Transport tanks	1 year	N/A	1 year	N/A
Silos	1 year	N/A	1 year	N/A
Used products and equipment	1 year *Unless otherwise indicated*	1 year *Unless otherwise indicated*	N/A	N/A
Listed chimneys	20 years *Prorated*	N/A	N/A	N/A
Tools and instruments	From the original manufacturer	N/A	N/A	N/A
Hardware and accessories from suppliers	3 months	N/A	N/A	N/A
Fittings and accessories for tubing	1 to 5 years *Prorated*	N/A	N/A	N/A
Tubing	10 to 15 years *Prorated*	N/A	N/A	N/A
Out-of-warranty repairs	1 year	1 year	N/A	N/A

SEALS | All seals, regardless of the equipment, are wearing parts that come with a one-year warranty.

BATTERIES, pH SENSORS, ELECTRONIC PARTS | There is **no warranty** on batteries, pH sensors, and electronic parts such as repair components purchased individually.

SUBMERSIBLE SENSORS | The **2-year** warranty applicable to submersible sensors **is voided** when they freeze or are damaged by poor handling or negligent maintenance.

* Wearing parts gradually deteriorate as the equipment is used. Those found on evaporators are as follows: seals, refractory materials such as bricks and concrete, and windows if applicable.

** The warranty is that of the original manufacturer. This warranty is null and void if water is present in the pump.

11. DISCLAIMER

The MANUFACTURER may not be held liable for incidental or indirect damage, nor for implied material damage.

In the event of a warranty claim, the MANUFACTURER bears no responsibility for:

- the direct or consequential loss of time, production, or profits,
- inconveniences,
- the costs of acquiring equipment, replacing parts, or storage.

12. SUBMITTING YOUR WARRANTY CLAIM

Here is the procedure to submit your warranty claim.

- Contact your representative or distributor, our service centre, or our head office to submit your warranty claim and schedule the after-sales service operation, if necessary.
- **IMPORTANT |** For any claim, you must submit your original purchase invoice or a legible copy of it. Otherwise, the MANUFACTURER will not accept your claim.
- If applicable, the MANUFACTURER will inspect your equipment and confirm whether your warranty claim is accepted.

  If **so**, the MANUFACTURER will carry out an after-sales service operation according to the provisions specified in *sections 1. TWO-YEAR LIMITED WARRANTY* or *2. ONE-YEAR LIMITED WARRANTY.*

  If **not**, you will be offered a cost estimate. This may include the travel expenses of a technician and their mileage, the working time of the technician at the hourly rate in effect, a daily allowance for meals, and other expenses, if applicable.
- If applicable, the functional equipment is then returned to the customer in a condition comparable to that in which it was found when it was received. This *comparable condition* was determined beforehand by the MANUFACTURER and/or one of its representatives or distributors.
- This after-sales service operation under warranty does not extend the duration of the warranty on the equipment. The end date of the warranty remains the same.

Warranty certificate: April 2024 (V05)

SECTION 9 **PARTS AND CONSUMABLES**

Parts for your PNEUMATIC BOTTLER SYSTEM or any other equipment manufactured at LAPIERRE EQUIPMENT are available at our main plant in Saint-Ludger, Quebec, Canada and our service centers in Waterloo, Quebec, Canada and Swanton, Vermont, USA. However, do not hesitate to contact us or visit our website to locate the distributor nearest you.

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Below, you'll find a CHECK LIST to help you GET STARTED with your pneumatic bottler system. Make a copy of this sheet, write your notes on it, and place it near your bottler system.

GETTING STARTED

TYPE OF CONTAINER USED

_____

PRESSURE NOTED

_____ psi

INSTALLATION / NEW CONTAINER

☐ 1. Adjust **valve height** (*Section 4.1.1*)

Note:

☐ 2. Position **stops** (*Section 4.1.2*)

Note:

☐ 3. Adjust **compressed air pressure** (*Section 4.1.3*)

Note:

☐ 4. Adjust **syrup level** in the container (*Section 4.1.4*)

Note:

FOR EVERY USE

☐ 1. Water jacketed bottling tank: bring the syrup to the **required temperature** (*Section 4.2.1*)

Note:

☐ 2. **Lubricate** pistons (*Section 4.2.2*)

Note:

☐ 3. **Warm up** components and valves (*Section 4.2.3*)

Note:

☐ 4. Adjust filling **speed** (*Section 4.2.4*)

Note:

☐ 5. Adjust filling **setpoint time** (DIGITAL control only) (*Section 4.2.5*)

Note:

☐ 6. **Bottling** maple syrup (*Section 4.3*)

Note:

☐ 7. **Lubricate the pistons a few times** during the bottling operation (*Section 4.2.2*)

Note:

Below, you'll find a CHECK LIST TO HELP YOU WITH THE CLEANING of your Pneumatic Bottling System. Make a copy of this sheet, write your notes on it, and place it near your bottling system.

CLEANING

☐ 1. **Switch off the heating elements** of the water jacketed bottling tank (*Section 5 No. 1*)

Note:

☐ 2. **Rinse and clean the heating tank** of the water jacketed bottling tank (*Section 5 No. 1*)

Note:

☐ 3. Rinse and **clean filling valves** (*Section 5 No. 2*)

Note:

☐ 4. **Recirculate hot water** to rinse and clean your bottler system (*Section 5 No. 2*)

Note:

☐ 5. **IF REQUIRED | Soak sealing washers** and height adjustment **rings** (*Section 5 No. 3*)

Note:

☐ 6. **Clean the filtration system** (*Section 5 No. 4*)

Note:

☐ 7. **Clean the pump** (*Section 5 No. 5*)

Note:

☐ 8. **Lubricate silicone seals** (*Section 5 No. 6*)

Note:

☐ 9. **Drain the tank** of your water jacketed bottling tank and **rinse it**. (*Section 5 No. 7*)

Note:

☐ 10. **Clean stainless steel** components in your bottler system (*Section 5 No. 8*)

Note:

NOTES

NOTES

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We sincerely appreciate your trust.

Thank you!

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