

May 1, 2024 NWB File No.: 2AM-DOH1335

Ali Shaikh Nunavut Water Board P.O. Box 119 Gjoa Haven, NU X0B 1J0

Re: 2AM-DOH1335 Part D, Item 11 – Commissioning Summary for Composter

Dear Mr. Shaikh:

Agnico Eagle Mines Limited (Agnico Eagle) is pleased to present the enclosed commissioning summary report for the Composter at Hope Bay, in accordance with Water Licence 2AM-DOH1335, Part D, Item 11.

Should you have any questions or require further information, please contact the undersigned at your convenience.

Regards,

Manon Turmel

manon.turmel@agnicoeagle.com

Permitting & Regulatory Affairs Superintendent



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#### 1 INTRODUCTION

#### 1.1 Site Location

Hope Bay is a gold mining and exploration Project located 705 km northeast of Yellowknife and 153 km southwest of Cambridge Bay in Nunavut Territory and is situated east of Bathurst Inlet. Agnico Eagle Mines Limited (Agnico Eagle) owns and operates the Hope Bay Project which has been under Care and Maintenance since 2022.

#### 1.2 History

On May 15, 2023, Agnico Eagle submitted a Modification notice to the Nunavut Water Board (NWB) under Part G of the 2AM-DOH1335 Licence to include in-vessel composting of organic waste generated at Hope Bay as an alternative to incineration to reduce fuel consumption and overall greenhouse gas emissions. The inclusion of on-site composting was approved by the NWB on July 4, 2023.

#### 1.3 Purpose of Document

As required by the Water Licence, this report summarizes the commissioning work associated with the composter. The selected composter (Brome series) was presented in the approved Modification notice. The Operational Manual is provided in Appendix A.

#### 2 Process Description and Design

The Brome series in-vessel composter consist of an insulated cylinder that rotates according to pre-set timed intervals. The rotation of the cylinder allows the material inside of the chamber to mix while providing aeration. Aeration is important to provide oxygen for the microorganisms that are digesting organic material to make the compost. Heat will be produced during the composting process from the breakdown of organic material by the microorganisms.

The composter operates in a continuous-feed manner. As more material is added and the cylinder rotates, the digesting material is moved along the vessel and is then discharged at the cylinder's extremity through an opening that also serves as an air inlet for oxygen. The amount of finished compost depends on the rotation intervals and the amount of organic material added to the vessel. Key performance indicators such as temperature and humidity will be developed with the composter supplier during commissioning, based on the model of composter selected and the site conditions.

The compostable material spends a minimum of nine days in the composter. During the composting process the operators review the temperature of the compost within the composting chamber to ensure proper targets are being reached (between 55°C and 65°C). Operators will visually inspect the compost for foreign matter and check that the texture and consistency of the compost appears normal. Depending on the amount of material composted, the material may have a residency time of between 9-20 days in the composter, during which time the cylinder completes one full revolution at regular intervals throughout the day.

Gases produced during the composting (e.g., carbon dioxide) process is ventilated from the building using a hood vent at the output of the composting unit. The compost is discharged once the material has reached the end of the composting cylinder. Compost is only discharged during the cylinder revolutions, and thus the amount of product being discharged can be manipulated based on the time intervals between revolutions and the amount of product added to the composter.



The following summary are aligned with the Schedule D, Item 2 of 2AM-DOH1335.

**Table 1: Commissioning Summary Concordance to Licence Conditions** 

Water Licence 2AM-DOH1335 Schedule D, Part 2	Commissioning Summary
a. All final design and construction drawings (must be stamped and signed by a Professional Engineer when related to an Engineered Structure).	As per the May 15, 2023 Modification notice to the NWB, construction was not required as the composter is housed within the existing waste management building and therefore no construction drawings.  The Brome series was selected and installed per the Operational Manual (Appendix A).
e. Site specific data and analysis, including Geochemical analysis of waste rocks and fills, demonstrating their Non Acid Rock Drainage and Non Metal Leaching characteristics, to support the design and management decisions;	Not applicable to the installation of the composter.
f. A summary of Construction activities including photographic records before, during and after Construction;	Refer to Section 3.
g. As-built drawings:	As per the May 15, 2023 Modification notice to the NWB, construction was not required as the composter is housed within the existing waste management building and therefore no construction drawings.
h. Documentation and detailed explanation of field decisions reflecting any deviations from original Construction drawings and plans, and how such deviations may affect performance of engineered structures;	No major variation from the installation methods outlined in the Brome Operational Manual (Appendix A).
i. Discussion of mitigation measures implemented during Construction and effectiveness of measures taken;	Not applicable to the installation of the composter.
j. Monitoring undertaken in compliance with Part D and/or Part I of the Licence;	Not applicable to the installation of the composter.
k. Blast vibration monitoring for quarrying activities carried out in close proximity to fish bearing waters;	Not applicable to the installation of the composter.
I. Monitoring of the performance of erosion protection measures and sediment release from construction areas;	Not applicable to the installation of the composter.
m. Monitoring and reporting on use of Water to manage dust emissions from crushing and Construction activity.	Not applicable to the installation of the composter.
n. Monitoring of contractor's activity to minimize ground impacts to the tundra (i.e. keeping vehicles off the tundra and on constructed roadways);	Not applicable to the installation of the composter.



#### **3 Commissioning Summary**

The installation and commissioning of the composter was completed according to the milestone dates shown in Table 1.

**Table 1: Installation and Commissioning of Composter** 

Activity	Timeline
Installation (mechanical, electrical, ventilation)	March 27, 2024
First compost batch	March 29, 2024
Commissioning	April 9, 2024

#### 3.1 Location and Photographs

The composter is housed within a building located in the approved Quarry 2 footprint (Figure 1). Photographs of the commissioning of the Composter unit are provided below.

Figure 1: Composter Location







Photo 1: Brome 624A In-vessel Composter



Photo 2: Brome 624A In-vessel Composter





Photo 3: Brome 624A In-vessel Composter



Photo 4: Brome 624A In-vessel Composter with Ventilation





Photo 5: Building with Brome 624A In-vessel Composter



Appendix A: Brome Composter Operating Manual (Version 2019)







# **OPERATING MANUAL**

**BROME COMPOSTER** 



# **OPERATING MANUAL**



Before using this composter, please read the instructions in this operator's manual as well as the instructions for all related equipment carefully in order to familiarize yourself with its operation and prevent problems and accidents.

#### INTRODUCTION

Composting is the ideal solution for the disposal of organic waste, especially when the alternative is sending it to landfill sites. Composting on-site greatly reduces greenhouse gas emissions and atmospheric pollutants related to the transport of organic residual matter to landfills or to industrial composting sites.

Brome Composters are easy to install and use, have low operating costs and low maintenance requirements, which makes on-site composting accessible to many types of industries, commercial businesses and institutions (ICI), as well as farms, greenhouses and municipalities.

Brome Composters are designed to convert many types of organic waste including food scraps, animal products, green waste, animal carcasses, sceptic mud, etc., into high-quality compost in a short period of time and with little handling. Brome Composters are available in a variety of different models, which can easily be adapted to the needs of various industries, businesses and institutions, as well as farms, greenhouse operations and municipalities.

#### Models:

Composter 400 Series	Brome 410
	Brome 416
	Brome 424
	Brome 430
Composter 500 Series	Brome 510
	Brome 516
	Brome 524
	Brome 530
Composter 600 Series	Brome 616
	Brome 624
	Brome 632

The capacities of each model can vary depending on the type of material, the required residency time, and whether the input is pre-treated.



These rotations mix the contents while at the same time providing aeration, allowing the bacteria to breathe and break down the organic waste (O.W.) into compost more rapidly than other composting methods. The decomposition process produces heat. The cylinder is insulated with a 1½" insulating material (R 7.5) to preserve heat inside the cylinder during the winter months. The compost is discharged at the cylinder's extremity through an opening that also serves as an air inlet.1 The rotation intervals and the amount of matter added regulate the amount of finished compost being discharged.

This composter is designed to work year-round, indoors or outdoors, and can compost a wide variety of O.W. In certain extreme conditions, adaptation may be required during the installation process.



<sup>&</sup>lt;sup>1</sup> Composters are pre-perforated to accommodate an optional ventilation system. Valves can also be installed as an option (passive ventilation).



# **Safety**

Before operating this equipment, make sure that each employee understands and follows the safety, operation and maintenance instructions described in this document.

Do not make modifications to this equipment without authorization from Brome Compost.

Equipment modification without authorisation will automatically invalidate the warranty offered by the manufacturer and could cause serious injuries.



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# **Section 1-- Safety**

# 1.1 Precautions for Composting Activities

Composting is considered a safe activity for operators and users alike when certain basic rules are respected. It falls to the owners of the equipment to provide the necessary information to operators so that composting operations can proceed safely. As the manufacturer of the equipment, Brome Compost is not responsible for the manner in which the client uses the equipment.

Before operating the equipment, ensure that each employee understands and follows the health and safety instructions, operating instructions, as well as the maintenance instructions described in the operating manuals for the composter and for any other related equipment and machinery.

# 1.2 Operating the Equipment Safely

Following the installation of the composting system and before usage begins, Brome Compost recommends training for the client and for their designated personnel to ensure that the equipment is used correctly and in a safe manner. In addition, support services are available for the start-up process that will help clarify any issues or concerns you may have about composting procedures and that will ensure the equipment is used correctly.

Start-up support will take place once the full installation of the system is completed. A remote monitoring service and an interactive data tracking system are also available upon request to offer support to the client and their designated personnel. Please contact Brome Compost for more information on this subject.

# 1.3 Health and Safety Instructions

Generally speaking, there are no health risks associated with composting activities. However, residual organic material may arrive on the site already contaminated by microorganisms and composting can produce certain other micro-organisms that may be harmful. Adequate hygiene and good management practices should limit the risk of contamination and any potentially negative health impact.

# 1.3.1 Basic Sound Management Practices

- Ensure that the input material is in good condition
- Keep the compost humid
- Keep the composting site clean
- Use personal protective equipment when actively manipulating the compost (for example: shredding the input matter, turning and sifting)



- Adopt good posture when manipulating the organic matter (and / or use collection bins with wheels)

### 1.3.2 Protective Equipment

- Regularly washed overalls or disposable coveralls
- Boots or shoe covers
- Visor or protective glasses
- Breathing mask for dust or fine particles (not obligatory but recommended). If you have asthma or other respiratory or auto-immune diseases, take extra precautions to avoid inhaling dust particles
- Always wear gloves and keep open wounds covered
- Noise-cancelling headphones
- Anti-septic waterless soap or disposable hand sanitizing wipes (for rapid disinfection of hands)
- On-hand first aid kit, easily accessible and conform to standards

# 1.3.3 Hygienic Measures

- Wear clean work clothes
- Avoid rubbing your eyes or touching your face with your hands
- Wash your hands frequently, especially before eating or smoking, as recommended by the Québec Ministry of Health and Social Services
- Never store food in the pockets of your work clothes
- Disinfect and cover any cuts or wounds quickly
- After each use, wash equipment used for handling and / or spreading compost that has been in contact with contaminated organic material (boots, forks, wheels, tractor floor, etc.)
- Do not wear work clothes at home
- Quickly take a shower and wash your hair after having manipulated contaminated compost

# 1.3.4 Follow an Appropriate Operating Protocol to Minimise Contamination Risks

Limit any risk of intoxication by only composting residual organic matter free of contamination, by washing your hands, by storing the active and the mature compost separately, and by respecting certain operating rules:

- Avoid manipulating fresh input material and mature compost with the same tools and in the same place in order to limit cross-contamination
- Keep the composting site as clean as possible



Wash all bins used to collect material well and with soap

# 1.4 General Safety Directives for Your Composting System

Limiting access to your installations, to your composting system, and to any related equipment is essential. Certain cases of vandalism have occurred with municipal organic waste collection where collection bins were stored outside. Using chains and a lock could remedy such a situation.

You must fence your composting installations if your system is automated and / or if any part of your equipment has accessible moving parts. Use a highly visible colour (orange or yellow) and adhesive labels to make moving parts more noticeable. A protective cage enclosing your bin lift will prevent the operator from activating the lever if the door of the cage is not closed.

# 1.5 Safety instructions for your BROME composter

- Never go into the cylinder unless you are trained to work in confined spaces and have authorization from your immediate superior; always follow the appropriate lockout procedure (see Section 5 – Maintenance);
- Make sure all the warning labels are in place and visible
- Repairs and maintenance on the equipment must be made by qualified personnel only;
- Respect all established safety standards while performing maintenance on the equipment;
- Make a visual inspection of the equipment as often as possible
- It is recommended to use replacement parts from the manufacturer
- It is recommended to restrict access to the equipment by installing a fence or other barrier
- We recommend that the composter's doors be locked when there is no surveillance or operator
  present

# 1.6 Precautions against the Risk of Electrocution and Physical Damage

- Always cut the electrical current if you need to open the control panel
- Never go beneath the composter
- Always ensure the doors are closed and locked before operating the composter
- Pay close attention to the turning of the wheels
- Never climb on the composter
- Feeding screw option:



- Never clear or clean matter without first cutting the electrical current and locking the composter
- Never place hands or tools inside the composter's feed shaft without first cutting the electrical current and always respect the recommended lockout safety procedures

# 1.7 Performing Maintenance Safely

- Always ensure that the electrical current is switched off and that the lockout procedure is done
  properly when performing maintenance on the composter. If you must go inside the
  composter, be sure to have adequate ventilation and to respect the regulations governing
  work in enclosed spaces.
- If you need to rotate the cylinder during maintenance, please remove toolboxes, stepping stools, ladders, etc. and ensure that there are absolutely NO OBSTACLES within the rotational axis in front, in back, and on each side of the composter.

### 1.8 Precautions for the Maintenance of the Feeding Screw

If the screw mechanism becomes jammed, you should under no circumstances try to remove matter with your hands or with a tool without first having followed the safety lockout procedure.

- Operate the screw for only a few seconds in reverse to unblock it. Stop the screw and start it again in the right direction
- If this does not work, follow the lockout procedure
- Remove the screw or the lock from the access door and remove the blocked matter carefully with an appropriate tool in order to avoid injuries
- Once the matter is removed, close the access door, put the screw or lock back in its proper position and restart the composter and the screw according to the proper procedure





# Section 2 – Important Information for Delivery

# Technical Data Sheet:

Composter Model	Weight (empty) (Kg)	Weight (in operation)	Working Volume (m3)
		(kg)	
Brome 406	599	1291	1.8
Brome 410	1796	2950	2.3
Brome 416	2199	4041	3.7
Brome 424	2595	5364	5.4
Brome 430	3193	6656	6.9
Brome 506	3492	4443	1.9
Brome 510	2023	3609	3.1
Brome 516	2381	4918	5.0
Brome 524	2821	3201	7.5
Brome 530	3401	8159	9.5
Brome 608	798	3113	4.6
Brome 616	3493	8121	9.2
Brome 624	5189	12132	13.8
Brome 630	5988	15245	18.3



# 2.1 Transport and Unloading

- Transporting the composter from the manufacturer to the installation site is the responsibility of the client.
- The unloading, on-site transport and installation of the composter are the responsibility of the client.
   The client is responsible for providing the machinery needed to unload the composter and a foundation on which to place it according to the technical data sheet provided by *Brome Compost*.





Place the strap firmly around the grooves by passing through the composter's support beams



Lift the composter with the appropriate lifting equipment (ensure that the composter is empty first).



# **Section 3 -- Installation**

# 3.1 Site selection and preparation

The client is responsible for choosing the layout for the composting site and providing the correct type of surface required for the equipment, as specified by Brome Compost. The composter must be installed on a flat and level surface. The surface or structure must be strong enough to support the composter with its full load and ensure it stays level at all times. For example and for information purposes only, a concrete slab or steel plate can serve as a foundation depending on the type of soil underneath it.



When the composter is used with mechanized loading equipment (e.g. a bin lift), we recommend securing the composter to the ground with an appropriate anchor depending on the type of surface it is resting on.

Respect all current regulations regarding the installation of a composting site.

#### 3.2 Precautions for Outdoor Installation

- Install the composter as far from houses as possible
- Avoid placing the composter near an air intake, a ventilation system, windows and doors
- Avoid placing the composter in high-traffic and/or busy areas
- Unless the composter is equipped with a cover (available as an option), we recommend the installation of a fence around the equipment

#### 3.3 Precautions for Indoor Installation

- Plan a ventilation shaft or a sanitary drain that exits the building to eliminate composting gas and odours
- Do not place the air exit near an air intake, a door or a window
- Take care to place the system in a separate room to avoid any contact with human food preparation or food storage areas in order to minimize contamination risks



- Make sure the building's foundation can support the weight of the composter when it's both empty and full
- Allow sufficient space around the composter to ensure ease of movement related to composting operations (adding organic waste matter, collecting compost at the exit, etc.)

#### 3.4 Electrical Connections

The client is responsible for the equipment's electrical connections.

It is possible, however, to deliver the equipment with an electrical connection as specified by the client. Please contact Brome Compost to schedule your electrical installation before the delivery of the equipment.



# **Section 4 – Operating Procedures**

# 4.1 Sanitary Precautions When Composting

Composting is considered a safe activity for operators and compost users when certain basic rules are respected and followed. It is the owner's duty to give all necessary information to operators to ensure composting activities are conducted safely. Brome Compost is a manufacturer and is not responsible for the client's use of the equipment.

# 4.2 Verifying the Installation and Assembly Before Start-up

Verify that the surrounding area is free of all equipment, tools, etc. and that the safety guards are installed before the initial start-up.

# 4.3 Initial Start-up

Before starting to introduce organic waste matter:

- 1. Ensure that the emergency stop button is in the OFF position;
- 2. Wear personal safety equipment such as a mask, safety goggles, gloves;
- 3. Ensure that the doors are open facing the operator
- 4. If necessary, use a platform to ensure a safe and ergonomic operation
- 5. Verify that the composter is free from all possible collisions with equipment or work tools when it is rotating

Always make sure the emergency stop button is pulled (i.e. the composter is working) after each use.



Figure 2 -- Brome Composter Control Panel



# 4.3.1 Adding Organic Waste Matter into the Composter

**Step 1:** Push the emergency stop button before working on the composter. This will prevent the rotation of the composter while you are working around the machine and when the door is open.

Step 2: Open the composter door.

#### Sliding door:

Unlock the door padlocks (on both handles) if you have this option. Pull the door locks at the same time as you pull on the handles. Pull on both handles alternately for ease of opening. When the handles are completely free, slide the door to the right.



#### **Out-swing doors:**

Unlock the door padlock (located on the handle) if you have this option. Pull the handle slightly up and then towards you. Open both doors by pulling them towards you.



Step 3: Closing the door and starting the composter.

Close the door and lock the padlocks, if you have this option.

Start the composter by pulling the emergency stop button. A green light on the control panel will indicate that the composter is in operation.



#### Check the Organic Matter Before Adding It Into the Composter:

Before adding organic matter to the composter, check the contents to be sure there is no foreign or contaminating matter (i.e. plastic, metal, glass, etc.). If you see foreign material, take out as much of it as you can before you add the bin contents into the composter.

\*\* If you notice that most of the contents of the bin have a bad smell, throw it out. \*\*



# 4.4 Monitoring the Temperature in the Composter

Temperature is the best indicator of how the composting process is working and it is crucial to monitor it daily. The best temperature range for aerobic composting is between 45°C and 70°C2.

• To read the temperature, check the thermometer(s) on the cylinder.



Using a portable thermometer is recommended for taking temperature readings at various locations through the door opening, especially during the initial start-up phase.

Figure 3 -- Composter Thermometer

# 4.5 Odour Management

Odour control is important if you wish to maintain a good impression of your composting installation and to avoid disagreements with your neighbours. By following good maintenance habits, you will prevent odour problems.

A good maintenance plan consists of:

- 1. Sweeping the floor and cleaning up splotches of O.W. on and around the composter;
- 2. Removing any waste that has fallen on the floor;
- 3. Carefully monitoring the composting process (make regular logbook entries, respect the procedures and recipes, etc.);<sup>3</sup>
- 4. Install an odour dispersion or treatment system if there is a possibility that odours may eventually bother neighbours in close proximity to your installation (available as an option).

<sup>&</sup>lt;sup>2</sup> Check the standards in effect.

<sup>&</sup>lt;sup>3</sup> An online calculator for composting recipes and monitoring is available as an option.



#### 4.6 How to Set Rotation Intervals

The Brome composter can be set to rotate at different intervals by adjusting the programmable timer located in the control panel.

#### 1. Locate the timer on the control panel:

- The clock can be set for different units of time (hours, seconds and minutes) to meet the needs of the user;
- Turn the screw located at the lower left on the clock (see red circle on the photo) to change the time intervals;
- Turn the screw located at the top right on the clock (see the red circle on the photo) to change the time units (hours, minutes).



Figure 4-- Rotation Programmed

Every Hour

#### 2. Turn the plastic wheel to change the hand position.

During normal use, the composter's rotation intervals should be approximately an hour. During special operations, it can be programmed differently.

3. When you are finished setting the adjustments, close the panel.

#### 4.7 How to Set the Door Position

The rotations can be stopped at a specific spot so that the door's position is always the same.

- Press the red emergency stop button on the composter before you work on or near it.
- Unscrew the panel located to the side of the control box
- When you look inside the composter, on the right-hand side, you will see a red magnet. The magnet stops the composter after a full rotation when it passes in front of the sensor. Remove the magnet and put it aside.

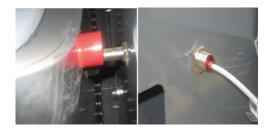


Figure 5—Red Magnet

 Pull the emergency stop button and set the composter on manual mode. Turn the composter to set the door at the desired position. Push the emergency stop button.



- Put the magnet in front of the sensor. Pull the emergency stop button and allow one rotation on automatic mode to test the door stop position (set the clock at 0 to make a rotation on automatic mode).
- After one rotation, the door should stop at the same position from which it started (if you still hear the alarm, put the composter back on manual mode to prevent a second rotation)
- If the position is correct, you can screw the panel back on, set the clock back to its original position and return the composter to automatic mode



# **Section 5 -- Maintenance**

# 5.1 Performing Maintenance Safely (Work Procedures for Enclosed Spaces)

Never enter the cylinder without having the proper training for work in closed spaces and without your organisation's authorisation. Always use the appropriate lockout procedure.



Generally speaking, an enclosed space refers to a partially or completely closed site that:

- Is not adapted nor destined for prolonged human occupation
- Has limited or restricted access and exit routes, or has a configuration that complicates first aid,
   rescue and evacuation procedures, as well as other emergency intervention practices
- Represents a potential risk to the health and security of persons entering the space, due to one or more of the following factors:
  - o Its conception, its construction, its location and its atmosphere
  - The matter or substances that it contains
  - The nature of the work to be done
  - Risks related to the mechanisms and procedures used, as well as dangers to personal security

Please visit the following Government of Canada website for more information on enclosed spaces: https://www.cchst.ca/oshanswers/hsprograms/confinedspace\_intro.html



# 5.2 Securing the Composter and/or the Screw Feeder (Dispenser)

For your safety, it is vital to lock the composter in position during all maintenance procedures, whether it be according to the established schedule or when a malfunction occurs.

#### Composter:

It is important to cut contact and lock the control panel while performing your maintenance routine in order to prevent someone else from accidentally starting or turning the composter. If you are inside the composter, make sure that another person is there to monitor you or make sure that you clearly indicate your presence.

#### Feeding Screw (Dispenser):

Never attempt to clean, unblock or perform maintenance on the feeding screw with your hands unless the power is cut and the screw is locked in position. Serious injuries could result. In addition, the lateral panel should always be blocked so that it cannot open when in operation.

# 5.3 Checking the Condition of the Composter

The Brome Composter is designed to function with only minimal maintenance. To ensure the composter's optimal operation, you must:

- Regularly inspect the inside of the cylinder to identify any damage that could cause premature deterioration. Remove the output end cap occasionally to allow an unobstructed inspection of the interior surfaces of the cylinder.
- Inspect and clean the area surrounding the cylinder. If material accumulates around the exterior, it can hinder the cylinder's rotational movements, contribute to the development of fly larvae, attract animals and create odours.
- Regularly inspect the opening through which the finished compost exits the cylinder (exit outlet) and clean it, if necessary.
- Do not operate the composter during prolonged periods of inactivity during the wintertime (in freezing conditions), and when if the material inside is frozen. This could damage the equipment.

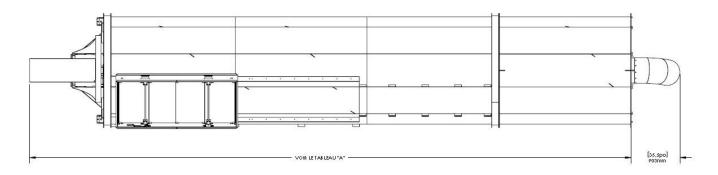


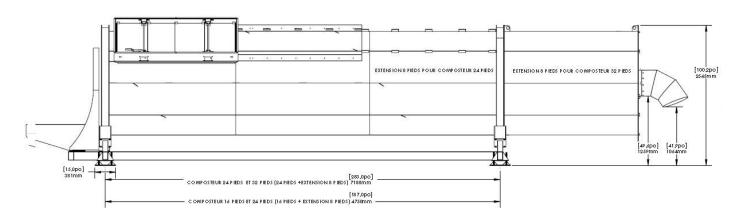
# 5.4 Maintenance Schedule

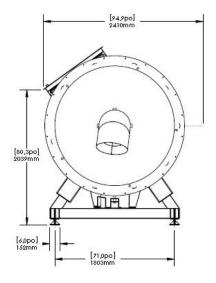
	Component	Check	Frequency
1	Door	Rubber Seal	Weekly
	Door	Easy to open	Each use
3	Compost exit outlet	Compost height	Each use
4	Ventilation	Working well	Weekly
5	Composter level	Keep it leveled	Twice a year
6	Control panel	<ul><li>Waterproof</li><li>Broken buttons</li></ul>	Monthly
7	Sifter	Holes are free of waste	Weekly
8	Interior of composter	Visual inspection	Annually
9	Mechanical components (motor, gear box, panel)	See manufacturer recommendations	As recommended
10	Wheel (Rotating and guide wheels)	<ul><li>Visual inspection</li><li>Rolling smoothy</li><li>Check bearings</li></ul>	Each use



# Section 6 - Brome Composter Dimensions



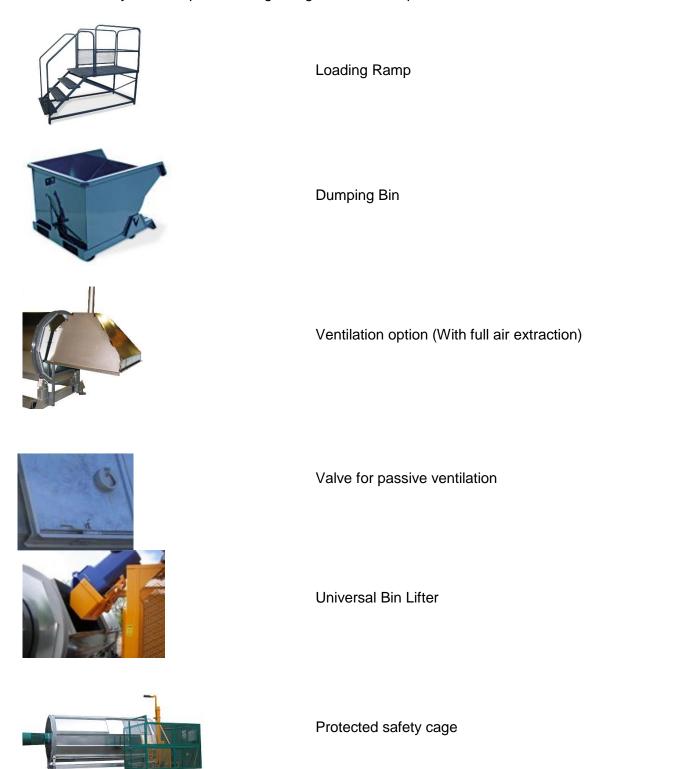






# Section 7 -- Equipment options / accessories

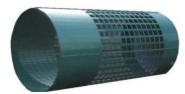
*Brome Compost* offers a wide range of accessories to facilitate on-site composting. Contact us for more information or if you have questions regarding the different options we offer.







Extension



Sifter



Out-swinging doors



Sliding door



Stainless steel finish

For more information, contact: Brome Compost

Paul Larouche: 450 574-2000, ext.21

Always inform your immediate superior of any incidents and/or damage to the equipment.



# Section 8 - Problem Solving

#### 8.1 Broken Chain

- Are the four wheels in good working condition? Perform a visual inspection of the rotating and guide wheels, and their bearings. A visual inspection should suffice.
- Are the two guide wheels located under the front part of the composter in good condition? Are they misaligned or rubbing against the groove thread?
- Is the composter rotating well on all four wheels when in operation?
- Is the composter level? 50%, 60%, 70% or more?
- Is the chain tensioner in good working condition? This prevents the chain from jumping off the sprocket.
- Are the two groove threads allowing the four wheels to turn correctly or are they problematic?
- Are the motor sprocket, the chain tensioner and the large composter sprocket all aligned?
- What is the internal temperature of the cylinder?
- According to you, are the humidity levels of the matter in the cylinder high, low or normal?
- To what height is the composter filled?
- Is the composter turning clock-wise when you look at the cylinder from the head / motor end?
- Is the overload mode on the control panel activated and causing the composter to restart?
- Could some material have become stuck in the chain or sprocket and damage either one?
- Are all the sprockets correctly aligned?



# Section 9 - Warranty

The Brome Composter is guaranteed against manufacturing defects for one (1) year after the invoicing date. The warranty includes reimbursement, replacement, correction and/or the repairing of the defect. Brome Compost will repair or replace equipment that displays a defect during normal usage at our discretion. This warranty covers parts and labour.

Mechanical parts (the control panel and the motor/gear box) are guaranteed against manufacturing defects, according to the current guarantees of the supplier of these parts. This guarantee includes replacement, correction and/or the repairing of the defect. It covers parts and labour.

In case of damage, the supplier's/manufacturer's corroboration and assessment will aid in determining the decision to repair or replace a defective part.

All travel and/or delivery expenses, brokerage and customs fees are at the expense of the client.

Any damage due to environmental conditions are not covered by the warranty for the modular composter and its mechanical parts.

Any modification to the modular composter and its components made by a third party not authorised by Brome Compost will result in the automatic cancellation of the warranty.

Components	Warranty	Conditions	Duration
Modular Composter	Manufacturing defaults	Remplacement, correction and/or repairing of the defect.	1 year after the invoicing date
Mechanical Parts	According to the	Remplacement,	According to the
	manufacturer	correction and/or repairing of the defect.	manufacturer



Brome Compost rejects all other damages sought due to defects or breakage of its equipment such as profit loss, travel, transport and labour costs.

Only this warranty applies to Brome Compost's equipment. No other person is authorised to interpret this warranty.

Operating the composter when the condition of the organic matter is such that it has a higher than 63% humidity level may result in mechanical and/or operating problems, as well as a premature deterioration of the system, which may limit the warranty.

# 9.1 Limitation of Liability

Please note that *Brome Compost inc.* is not responsible for problems that may present themselves due to the nature of the biological process involved in composting activities and releases itself from all such liability. We cannot guarantee that problems will not arise during the operation of the composter, as this is contingent upon the nature and variety of the organic matter to be processed, the operator's experience as well as the influence of weather conditions.

The equipment is under guarantee for normal use. A mechanical breakdown or premature wear of the equipment caused by abusive use will invalidate the manufacturer's warranty.

Brome Compost inc. reserves the right to make changes to the conception and manufacturing of their line of equipment at any time without obligation to change or modify the products already sold.