

Tracy Braun (Director)

Aug 13, 2015

Environmental Approvals

Manitoba Conservation and Water Stewardship

2nd Floor 123 Main Street (Box 80)

Winnipeg, MB. R3C 1A5

Dear Tracy Braun

This note is to advise you that The Forks Renewal Corporation will be upgrading the Biovator Drum located at The Forks Composting Site.

Attached are drawings of the new drum. The upgrade will eliminate the need for the experimental hopper, a prototype designed by Nioex. Unfortunately we were unable to use the existing drum without the hopper .

Going forward, feedstock will be loaded directly into the loading door (fig 4).

No changes in processing capacity or site footprint.

Sincerely;

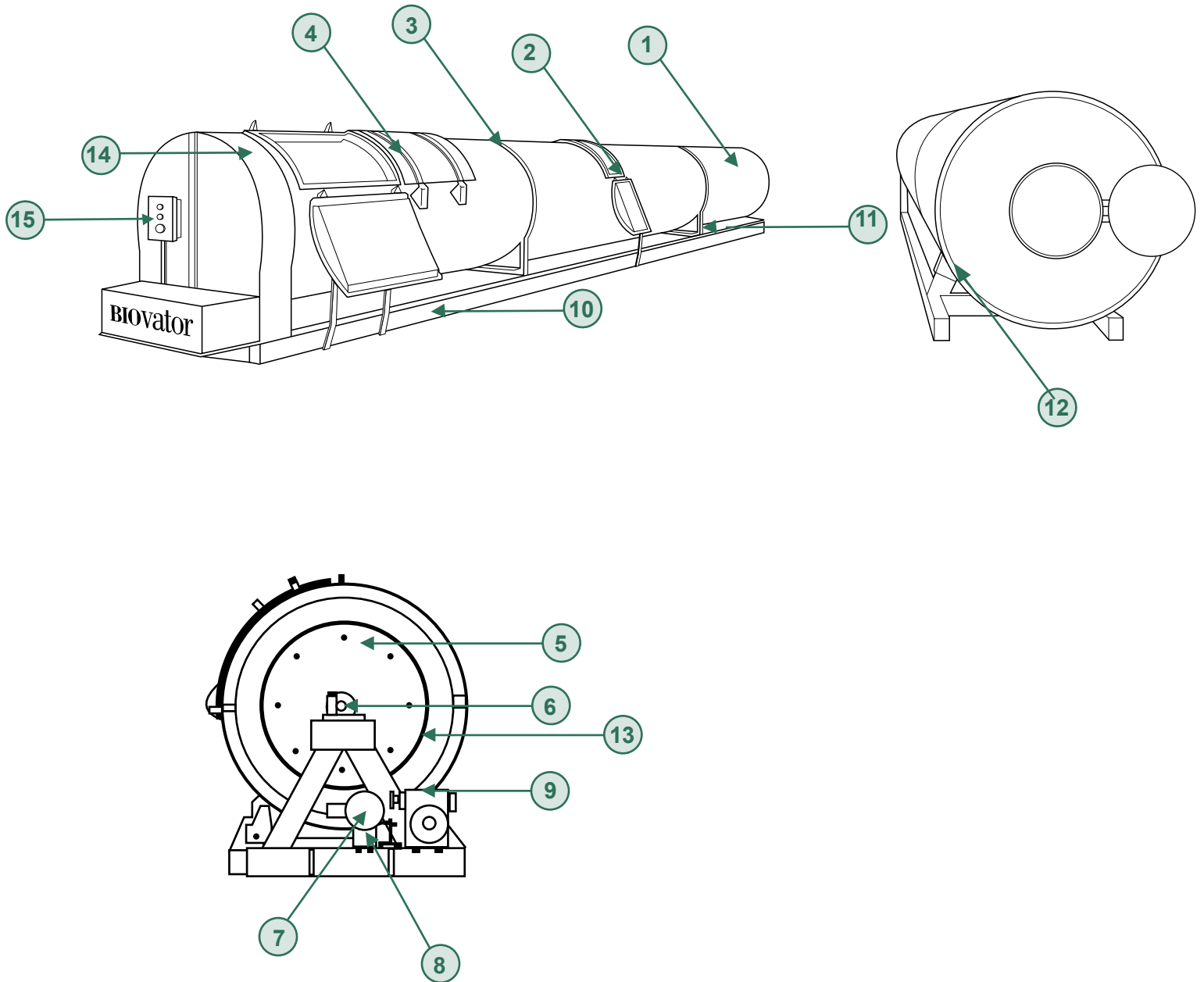
David Pancoe

Manager, Special Projects

The Forks Renewal Corporation

The vessel is supported on side nylon rollers and a front pillow block. Nylon rollers are supported by a steel skid. The vessel rotates at a speed of 3 revolutions per hour (or 20 minutes per revolution approximately).

5.3. BIOvator™ Components & Technical Specifications



Component	Description	Technical Specification	Model BIO316	Model BIO418	Model BIO430	Model BIO442
1	Steel drum Spiral welded	Mild steel 1/4" thick Two-part epoxy coated	16 feet long 3' dia	18 feet long 4' dia	30 feet long 4' dia	42 feet long 4' dia
2	Inspection door	17 1/2" 24" opening SS 304 construction Foam insulated Nitrile seal 1 3/4" x 3/4" Ratchet type locking device	no door	no door	1 door	2 doors (1 vented)
3	Steel channel	6" x 10.5 pounds per foot Welded to the drum Hot dipped galvanize	1 channel	1 channel	2 channels	3 channels
4	Loading door	24" x 90" opening (2 doors) SS 304 construction Foam insulated Nitrile seal 1 3/4" x 3/4" Ratchet type locking device	1 door	2 doors	2 doors	2 doors
5	Steel sprocket	Bolted to center of the loading end of the rotary vessel	Fit #60 chain 99 teeth	Fit #100 chain 89 teeth	Fit #100 chain 89 teeth	Fit # 100 chain 89 teeth
6	Pillow block		SAP208-24 for 1.5" shaft	HCP211-32 for 2" shaft	HCP211-32 for 2" shaft	HCP211-32 for 2" shaft
7	Electric motor	110 volts single phase Baldor farm duty motor	0.5 HP 1725 RPM 60 Hz	1 HP 1725 RPM 60 Hz	1 HP 1725 RPM 60 Hz	1 HP 1725 RPM 60 Hz
8	Speed reducer	60:1 Synthetic gear box oil	Frame #80	Frame #80	Frame #80	Frame #80
9	Speed reducer	60:1 Synthetic gear box oil	Frame #80	Frame #120	Frame #120	Frame #120
10	Steel frame	Hot dipped galvanize	4" x 4" x .188 thick tubing	4" x 6" x .188 thick tubing	4" x 6" x .188 thick tubing	4" x 6" x .188 thick tubing
11	Nylon roller with sealed bearings	6" dia x 3" wide 3/4" bore 5,500 pound capacity each	2	2	4	6
12	Foam Insulation	1 1/2- 2" thick spray-on insulation R-8, Cover with SS 304 liner	1	1	1	1
13	Chain	Heavy duty roller chain	#60	#100	#100	#100
14	Drive guard	All SS 304	1	1	1	1
15	Control box	EEMAC 4X Fiberglass enclosure, 120VAC 1 phase, 24 hour automated time switch with proximity switch de-activation	1	1	1	1

