

# Eco-collector

## More than an innovation, a revolution!

Four years of extensive research and development combined with rigorous prototype testing have led to the long awaited answer to various environmental concerns: the Eco-collector truck.

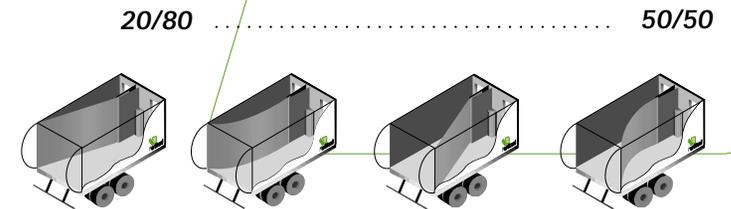
*"The Eco-Techno-Logical Choice  
of the New Millennium"*

The Eco-collector was entirely designed and developed in Canada by Markland in support of the commitment to meet waste reduction and cost-efficiency objectives. Its unique design makes it versatile and safe for the collection of recyclable, organic and household waste. On its own, it does the job of two trucks.



### Self-adjusting

A unique, moveable bulkhead divides the interior of the Eco-collector into two separate, self-adjusting compartments that automatically adapt to the amount of waste collected in a ratio ranging from 20/80 to 50/50. This patented load distribution feature allows the versatile Eco-collector to adapt to seasonal needs and the special requirements of each pick-up.



## Unique features

### Dual loading

The Eco-collector is equipped with two lateral loading buckets. An incline links them both together for a one man, single side, two stream operation.

An optional detachable bi-directional incline allows loading from either or both sides, by either one or two operators.

A single cart tipper allows 240 and 360 liters carts to be dumped in either loading bucket. (option)

The Eco-collector is equipped with two large capacity loading buckets, linked with an incline of adjustable height for maximum ergonomics.



### Powerful rams

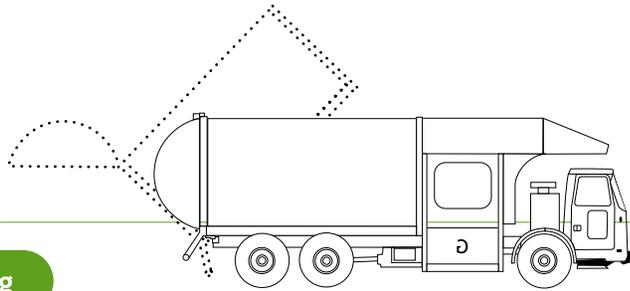


The Eco-collector has a higher loading capacity than any other truck. Two powerful rams located in the upper front part of the truck compact the contents of the buckets into their respective compartment. This proprietary compaction system features the following advantages:

1. Compaction from the upper part of the body minimizes the amount of crushed glass contained in the recycling stream and facilitates further sorting at the MURF.
2. Compaction occurs while the truck is heading to its next stop thus achieving substantial daily savings.

## Weight Distribution

The Eco-collector is engineered to maximize the load bearing on the rear axle; it therefore offers the highest tonnage in the industry.



## Easy unloading

Shaped like an upside-down funnel, the compartments are easily emptied. Also, the polymer lining of the floor prevents any sticking.

## Enhanced safety features

The Eco-collector's ergonomic design exceeds all safety standards currently in force and lowers the risk of on-the-job injuries. Moreover, an on-board computer monitors every automated operation, leaving very little room for human error.

Finally, its patented load distribution system provides unprecedented safety on the road and allows both compartments to be emptied with the same degree of safety in different locations. After unloading the first compartment, a simple command from the operator rebalances the load of the second compartment over the full width of the container.

## Multiple savings

The unique features and exceptional performance of the Eco-collector offers the following benefits:



1. The dual drive cabin adjacent to the loading buckets requires only one operator.
2. The exceptional load capacity helps reduce the size of the waste collection fleet.
3. Its versatility encourages residents to recycle and thus helps reduce landfill.
4. By performing the work of two collection vehicles, it lowers the social costs linked to air and noise pollution in residential areas.
5. Off the shelf availability of its components minimizes the replacement cost of used parts.



***The Eco-collector is proof positive that productivity can be improved while cutting costs: a choice sure to please managers and taxpayers alike!***

We would be pleased to give you a demonstration of how the Eco-collector can make your waste management program the most efficient and cost-effective.

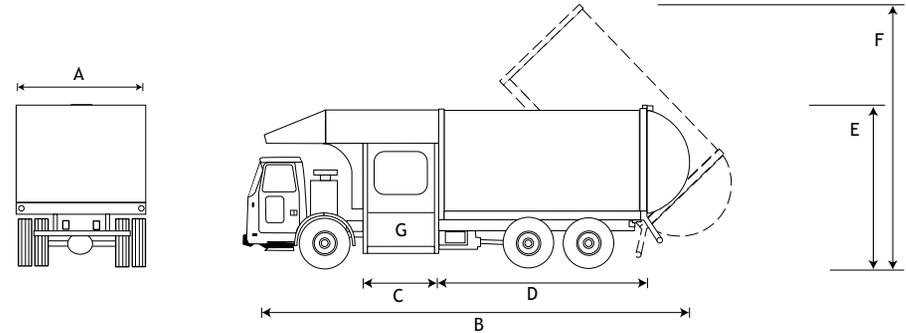
**Call us now at 1-877-595-0791 (toll free).**

# Ec-collector

## Technical Specifications



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### Hydraulics

Hydraulic tank:	227 l	60 US Gal.
Return filter::	10 µm	10 microns
Suction filter:	90 µm	90 microns
Double gear pump:	75 l/min. @ 1200 RPM	20 GPM @ 1200 RPM
Electro-mechanical valve: Compaction force is individually adjustable for each compartment		
Compartment A, 6 sections	143 l/min	38 gpm
Compartment B, 5 sections	143 l/min	38 gpm
Double action valve:	Synchronised at 38 l/min	10 gpm
Cylinders:		
- Rear door (2):	ø 76 mm x 699 mm	3 in. x 27,5 in.
- Dumping (1, single action):	ø 165 mm x 3302 mm	6,5 in. x 130 in.
- Compactors (2):	ø 101 mm x 1765 mm	4 in. x 69,5 in.
- Buckets (2):	ø 76 mm x 787 mm	3 in. x 31 in.
- Non-return plates (2):	ø 76 mm x 798 mm	3 in. x 31,4 in.
- Adjustable incline (1):	ø 63 mm x 356 mm	2,5 in. x 14 in.
- Extension (1):	ø 63 mm x 629 mm	2,5 in. x 24,75 in.
- Cart tipper (1):	ø 63 mm x 368 mm	2,5 in. x 14,5 in.
- Cart tipper (1, actuator):	Capacity of 160 kg	350 lb

### Bulkhead

A bulkhead inside the body prevents the intermixing of waste material between the two compartments.

Bulkhead: 12,7 mm (0,5 in.) HMW polymer  
The ratio between the two compartments is self-adjusting.

### Hydraulic loading system

Loading buckets on both sides of frame, in front of the body.

Loading buckets volume (2): 1,4 m<sup>3</sup> (1,8 yd<sup>3</sup>)

Approx. height of bucket edge/top: 1155 mm (45,5 in.)

Adjustable incline with hydraulic control for transfer of material over the frame rails.

In-cab electrical controls.

Semi-automated loading cycle.

Cycle duration: \*\* 3,5 sec

### Measurements

A = Truck body width:	2590 mm	102 in.
B = Truck body length:	9652 mm	380 in.
C = Loading zone length:	1727 mm	100 in.
D = Container length:	4724 mm	239 in.
E = Truck body height:	3658 mm	48 in.
F = Container height in dumping position:	5969 mm	26 in.
G = Dimensions of loading buckets:	667 X 667 X 1524 mm	26 1/4 X 26 1/4 X 60 in.

Remark: Dimensions E and F may vary lightly according to the type of frame

### Dual collection body

Floor:	2,7 mm (7/64 in.)	12 gauge steel, increased corrosion resistance
Lateral walls(2):	3,4 mm (9/64 in.)	10 gauge steel, A606
Lateral walls(2):	2,7 mm (7/64 in.)	12 gauge steel, A606
Roof:	2,7 mm (7/64 in.)	12 gauge steel, increased corrosion resistance
Rear door:	2,7 mm (7/64 in.)	12 gauge steel, increased corrosion resistance
Loading buckets:	4,8 mm (3/16 in.)	400 BHN steel
Floor covering:	6,4 mm (1/4 in.)	HMW polymer
Approx. inner dimensions of the container:	470 (L) x 249 (W) x 231 (H) cm	185 (L) x 98 (W) x 91 (H) in.
Approx. dimensions of the rear door:	95 (D) x 241 (W) 231 (H) cm	37 (D) x 95 (W) 91 (H) in.
Approximate loading volume:	31 m <sup>3</sup> (40,5 yd <sup>3</sup> )	
Rear door opening and locking hydraulically controlled.		

### Warranty

One (1) year on the co-collector body.  
Original equipment manufacturers' warranty on components.

### Continuous improvement

In order to continually improve our product, these specifications are for information only. Markland retains the right to change without notice certain components of the vehicle for efficiency purposes.

\*\* Under normal operation, stop time required by the operator; the rest of the cycle (13 sec.) takes place automatically and between two doors.