



# BOIVIN EVOLUTION

INTRODUCING THE FIRST

# 100% ELECTRIC

AUTOMATED ARM AND COLLECTION BODY



ZERO EMISSION



LOWER COST  
OF OWNERSHIP



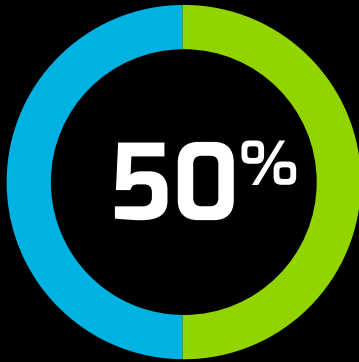
LOWER  
MAINTENANCE

Fully automated side loader for **residential waste, recycling and organic** collection. The body is engineered to function with electric motors PMDC (Permanent Magnet DC motor) or electric actuator for every function or movement to enhance the power efficiency and reduce the energy consumption. **There is no hydraulic equipment or function.**

The unit has a screw type compactor that carries compacted waste through a front body wall and ejector panel. Full eject is performed with packthrough ejector. No tilt of body is required for unloading. All functions of the body and arm are driven by the energy from a battery. The unit can be self sufficient with its own battery pack, no need of power from the chassis to operate the body. It can also be integrated on a LION8 chassis to optimize the battery packs sizing, the energy consumption and the battery recharge, for a full working day (1000 carts / day) so zero GHG (GreenHouse Gaz) emission are related to the operation. Fully recharge of the battery is 4 to 8 hours.

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**SAVINGS**  
ELECTRIC  
VS. HYDRAULIC



REDUCTION OF  
THE ENERGY CONSUMPTION  
OF AN ELECTRIC  
VS. HYDRAULIC ON  
AN ELECTRIC CHASSIS



**SPECIFICATIONS**

BODY CAPACITIES: 15,3 to 25,2 m<sup>3</sup> | 20 to 30 cu.yd

<b>BODY</b>	25,2 + 2,3 m <sup>3</sup>   27 + 3 cu.yd
<b>BODY WEIGHT</b>	5,900 kg   13,000 lbs (including battery pack)
<b>CAPACITY</b>	15.3 m <sup>3</sup>   20 cu.yd <b>or</b> 20.6 m <sup>3</sup>   27 cu.yd
<b>LENGTH</b>	6,172 mm   243 in <b>or</b> 6,706 mm   264 in
<b>MADE OF</b>	12 ga (2 mm), grade 80
<b>FLOOR</b>	5 mm (3/16 in), 100,000 tensile strength, abrasion resistant
<b>TAILGATE</b>	
<b>CAPACITY</b>	0 m <sup>3</sup>   0 cu.yd <b>or</b> 2.4 m <sup>3</sup>   3 cu.yd <b>or</b> 4.6 m <sup>3</sup>   6 cu.yd
<b>LENGTH</b>	305 mm   12 in <b>or</b> 610 mm   24 in <b>or</b> 813 mm   32 in
<b>MADE OF</b>	12 ga (2 mm) steel, grade 80
<b>MECHANISM</b>	2 electric actuator unlock/lock the tailgate and lift/close it in the same movement
<b>HOPPER</b>	
<b>CAPACITY</b>	2,3 m <sup>3</sup>   3 cu.yd
<b>FLOOR</b>	9 mm (3/8 in) abrasion resistant steel with 400 HB of hardness
<b>AUGER COMPACTOR</b>	4,6 m <sup>3</sup> /min (6 cu.yd/min) drive by unique planetary mechanism design to maximize compaction and develop 30,800 Nm (22,600 lbs/ft) torque on refuse. Automatic torque and speed control allows collection of garbage, recycling and organics, without destroying material and avoiding packing jam. The tapered screw allow a 3 phases compaction of the material, radial compaction and axial compaction into the auger area followed by the final compaction phase inside the body.
<b>PACK THROUGH EJECT PANEL (PATENT PENDING)</b>	
	The patent pending concept allows packing through the front wall of the body and unload with an eject panel driven by PMDC motor, planetary and chains. The system has a moving shutter that closes the packer opening to prevent garbage from falling back behind the ejector while the unloading operation.
<b>AUTOMATED ARM (PATENT PENDING)</b>	
	Close grab, no swing out, 3 m (10 ft) reach for bins 120, 240 and 360 liters (30, 60 and 90 gallons) with a lifting capacity of 350 kg (750 lbs). All 3 functions are powered by PMDC electric motors and gearbox combination for a cycle time of less than 10 secondes.
<b>ELECTRIC</b>	
<b>BATTERY</b>	LiNMC high density technology allows light weight and quick recharge (4-8 hours) on Type 2 charging station, 240 VAC compatible J1772. Powered heat pads are installed in the battery pack to maintain the battery at its best working condition and temperature.
<b>AUTONOMY</b>	46 kWh of capacity, allows collection over of 1,000 bins per day with the overnight charge in any temperature conditions.
<b>CHASSIS</b>	
	This new concept of 100% electric automated arm and collection body is the most efficient unit to install on a 100% electric LION8 chassis. With this concept, if mounted on an electric chassis, there would be enough energy to meet a full day of work on a regular route of over 1,000 bins/day.
<b>CABOVER</b>	60,000 GVW, 220 in WB (27 cu.yd body)