



BOIVIN **BEV**
EVOLUTION



Boivin Evolution is the first company to offer a collection body with **100% electric automated arms** for the collection of residential waste, recycling and organic matter.

Side loading is **completely automated** for the collection of residential waste, recycling and organic matter. The body is designed to work with **permanent magnet and direct current electric motors** (PMDC: Permanent Magnet DC Motor) or **electric actuators** for all functions or movements to improve the efficiency of electric power and **reduce energy consumption**. There is **no hydraulic oil, pump, pipe or hose**.

The concept allows for compaction through the front wall of the body and **unloading with a Packthrough Eject Panel** using a screw type compactor that carries the waste. No tilting of the body is required to unload it. All body and arm **functions are battery powered**. No energy is drawn from the thermic engine of the chassis to power the body and the arm.

The unit is **autonomous with its own battery**, and no chassis power is needed to operate it. No diesel, CNG or LNG is required to operate all the functions of the body and the arm for an entire day of operation (**1,200 bins / day**), resulting in **no greenhouse gas emissions** associated with operating the body and the arm. Charging the battery to maximum capacity takes 4 to 8 hours.

*If you would like more information and are interested in one of our products, please **contact us**. A complete virtual tour of our collection body is also available.*

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SPECIFICATIONS

BODY CAPACITIES: 10,5 to 24,5 m³ | 15 to 32 cu.yd

BODY	25.2 + 2.3m ³ 27 + 3 cu.yd
BODY WEIGHT	5,900 kg 14,000 lbs (arm and battery)
CAPACITY	10.5 m ³ 15 cu.yd or 15.3 m ³ 20 cu.yd or 20.6 m ³ 27 cu.yd
LENGTH	5,400 mm 313 in or 6,700mm 264 in
MADE OF	12 ga (2.657 mm) steel, grade 80
FLOOR	6.35 mm (1/4 in), 100,000 tensile strength, abrasion resistant
TAILGATE	
CAPACITY	0 m ³ 0 cu.yd or 23 m ³ 3 cu.yd or 3.8 m ³ 5 cu.yd
LENGTH	305 mm 12 in or 610 mm 24 in or 813 mm 32 in
MADE OF	12 ga (2.657 mm) steel, grade 80
MECHANISM	Two actuators to unlock / lock the rear panel and raise / lower in the same movement
HOPPER	
CAPACITY	2.3 m ³ 3 cu.yd
TROUGH TYPE FLOOR	6.35 mm (1/4 in) abrasion resistant steel with 400 HB of hardness, welded on plate 9.5 m (3/8 in)
AUGER COMPACTOR	4.6 m ³ / 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.
PACK THROUGH EJECT PANEL (PATENT PENDING)	
	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.
AUTOMATED ARM (PATENT PENDING)	
	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 227 kg (500 lbs). All 3 functions are powered by PMDC electric motors and gearbox combination for a cycle time of less than 10 secondes.
ELECTRIC	
BATTERY	LiNMC high density technology allows light weight and quick recharge (4-8 hours) on Type 2 charging station, 2,240 VAC compatible J1772. Powered heat pads are installed in the battery pack to maintain the battery at its best working condition and temperature.
AUTONOMY	46 kWh of capacity, allows collection over of 1,200 bins per day with the overnight charge in any temperature conditions.
CHASSIS	
	The concept of a collection bodyt with a 100% electric automated arm is the most efficient unit to be installed on a 100% electric chassis. With such a concept, the electric chassis have enough autonomy to meet the standard collection routes (above 1,200 bins / day).
CONVENTIONAL	56,000 GVW, 256 in WB (27 + 3 cu.yd body)
CABOVER	60,000 GVW, 220 in WB (27 + 3 cu.yd body)

SAVINGS

ELECTRIC
VS. HYDRAULIC



REDUCTION OF FUEL CONSUMPTION WITH AN ELECTRIC VS. HYDRAULIC ON A FUEL CHASSIS



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



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