

GLOBAL M4 Hybrid



Introducing the World's **1st** Purpose-Built *Electric Hybrid Street Sweeper*

Global M4 Hybrid Sweeper Is Industry Benchmark

The Global M4 Hybrid is a high-performance electric-hybrid street sweeper that offers unmatched reliability, safety and ease of use.

- ▶ **Over 50% increase in fuel economy.**
- ▶ Reduced emissions.
- ▶ Reduced noise levels.
- ▶ Travel speeds up to 60 MPH.
- ▶ State-of-the-art environmental automotive technology.
- ▶ Toughest and most rugged purpose-built mechanical sweeping system ever constructed.
- ▶ Capable of removing large amounts of debris with specially designed equal-width pick-up broom and elevator system.
- ▶ Leafgate system controlled from within the cab to ingest bulky debris such as branches and leaves.
- ▶ PM-10 water system improves air quality.
- ▶ Safe design with high visibility and fingertip controls.
- ▶ Exceptional maneuverability.
- ▶ Available in high or low dump configurations.

▶ **Global Environmental Products** continues industry-leading innovative engineering with the introduction of the World's 1st purpose-built electric hybrid street sweeper.

▶ **Global Environmental Products** offers equipment with uncompromising performance, consistent quality, durability and reliability. Our comprehensive range of machines provide the right cleaning equipment for your application.

▶ **Global Environmental Products**

- ▶ **Reliable / Durable Equipment**
- ▶ **Innovative Engineering / Design**
- ▶ **Industry Leading Reputation**
- ▶ **Dedicated Customer Service**
- ▶ **Outstanding Sales Professionals**
- ▶ **Fast Parts and Service**
- ▶ **National Dealer Network**

ELECTRIC HYBRID



MADE IN USA

Reliable • Affordable • Innovative

Engine

Cummins ISB-200	6 cylinder injected diesel, turbocharged and intercooled. EPA 2010
Displacement	Diesel: 409 cu in. (6.7 L)
Horsepower	Diesel: 200 HP @ 2300 RPM
Maximum Torque	Diesel: 520 lb-ft @ 1600 RPM
Cooling System	38 qt (36 L) capacity, swing-away designed radiator.
Engine Oil	15 qt (14 L).
Air Cleaner	Two-stage dry with safety element.

Traction Drive

Description	Electrical drive with two speed differential final drive. The traction system provides constant broom speed independent of vehicle speed or direction.
Range	Low (sweeping mode) = 0 – 14 mph High (travel mode) = 0 – 60 mph.

Auxiliary Hydraulics

Description	Tandem or Triple hydraulic pump assembly utilizes separate direct mounted gear pumps to provide high torque power to elevator, main broom and gutter brooms.
Capacity	Total system – 20 gal (75L); One tank – 17 gal (64L)

Sweeping

Swath	91 in. (2311mm) single gutter broom, 125 in. (3175mm) dual gutter broom
Pickup System	Balanced components
Elevator Width	58 in. (1473mm)
Broom Width	58 in. (1473mm)
Hopper Width	74 in. (1880mm)

Pickup Broom

Type	Disposable polypropylene.
Size	32 in. x 58 in. (813mm x 1473mm)
Drive	Direct hydraulic, variable speed
Displacement	17.1 cu in./rev.
Speeds	Variable
Controls	Cab mounted hydraulically raised and lowered.
Position	Self adjusting for pressure and wear.

Gutter Broom

Diameter	47 in. (1194mm)
Speed	Variable
Drive	Direct high torque hydraulic.
Lift	Hydraulic displacement cylinders.
Impact Protection	Hydraulic accumulators allow vertical free floating and shock absorbers allow horizontal protection.

Gutter Broom

Overload Protection	Motor mounted relief caps.
Adjustments	Simple "tool free" settings, in-cab controls for tilt, pressure and wear.

Hopper

Capacity	5.6 cubic volumetric yards (4.28 cu meters).
Lift	12,000 lbs (5445kg).
Lift Method	Dual 4 in. hydraulic cylinders.
Dump Height	116 in. (2945mm) high dump.
Dump Position	Behind rear wheels, similar to dump truck.
Dump Control	Cab mounted single rocker switch.
Safety Lockout	Hopper lift controls automatically prevent movement while dumping.
Location	Center mounted behind cab.

Water Spray System

Capacity	250 gal. (946L)
Construction	Molded Polyethylene.
Location	Below frame for stability.
Spray Nozzles	15 nozzles at various locations.
Controls	Variable flow valves over each broom, master variable flow valve and shutoff switch in cab.
Filter	Cleanable.
Fill Hose	15 ft (4572mm) hose located at right center body panel.

Elevator

Type	7 or 11 Flight squeegee.
Squeegee	Replaceable corded rubber tips.
Belts	Continuous molded rubber.
Drive	Direct hydraulic, variable with forward and reverse.
Displacement	15.8 cu in./rev.
Protection	Hydraulic relief cartridge.
Speed	Variable forward and reverse.
Bearings	Four 3/16 in. triple lip sealed, high load capacity with dust seals.
Shaft	Split shaft design.
Back Plate	Adjustable/replaceable bolt-on.
Throw Plate	Adjustable for fill.



Electrical System

Electrical Hybrid Components	Electrical generator, electrical drive motor, electrical hydraulic motor, generator control unit, motor control unit for drive motor, and hydraulic motor, and lithium-ion batteries.
Alternator	130 amp with dust shield, 12 volt system.
Batteries	2 – 900 CCA @ 0F; 12 volt system.
Wiring	Sealed wire harness; Solid color coded wires, numbered and function labeled every 12 in. (305mm); sealed pre-wired solenoids; Circuite breaker protected. 12 volt system.

Chassis

Frame	3" x 13" (76mm x 330mm) C-Channel with modular body; Front & rear tow hooks.
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Instruments

Gauges	Speedometer/odometer, engine tachometer/hour-meter, hydraulic oil pump tachometer, engine oil pressure, engine water temperature, voltmeter, fuel gauge and gutter broom position indicators.
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Sweeper Dimensions

Wheel Base	130 in. (3302mm)
Length	208 in. (5283mm)
Height	120 in. (3048mm)
Width	102 in. (2591mm)
Weight	16,660 lbs (7557kg)

Paint

Powder Coated	100% TGIC
Body	White and black matte.

Options

Stainless Steel Hopper	Lifetime warranty
PM-10	Reduces harmful particulates for improved air quality.
In-Cab GB Tilt Control	Enhances curbline cleaning
Elevator Flusher	Extends elevator component life.

Air Quality Management District

The Global M4 has been designated by the South Coast Air Quality Management District as Rule 1186 Certified for its ability to pick up and contain small-micron material. It passed the rigorous Rule 1186, PM10 Certification.

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