RAVO **STREET SWEEPERS**

The industry reference in street sweepers. Purpose built to deliver exceptional performance.



RAVO
FAYAT GROUP

RAVO **R5** & **R5e**

PURE VACUUM 6.5yd³ STREET SWEEPERS

WELCOME TO **RAVO**

Pure vacuum street sweeping solutions

With a long and pioneering history in the industry, RAVO is the leading manufacturer of high-quality compact road sweeping solutions spanning from 1 to 6.5 cubic yard hopper capacities. RAVO sweepers are engineered with operator efficiency, comfort and safety in mind.

Partnered with a strong North American dealer network and an expert Parts & Service team, RAVO is proud to offer its customers a complete range of products and services.



The leader in street sweepers

The **R5** and the **R5e** set the standard for performance, quality and durability. RAVO **diesel** and **electric** sweepers are trusted by customers around the world for this reason.

Our machines are powerful, and so are our partnerships

To find your local RAVO dealer, visit our website:
ravo.fayat.com

RAVO **R5**

Robust, reliable and ready to work

With over 800 sold to date in North America, the RAVO R5 is known throughout the industry for its durable construction quality, long service life, and ease of operation.

- **Industry-best compaction rate.** Make the most of the R5's impressive payload with exceptional compaction and large hopper capacity.
- **Automatic ride height/self-leveling system.** Maintain constant self leveled broom pressure for the best sweeping results and reduced broom wear.
- **Robust, maintenance-friendly broom system.** The trusted RAVO broom system design is maintenance-friendly and has no greasing points.
- **Best-in-class turning radius.** Sweep the tightest corner and dead end streets thanks to the R5's exceptional maneuverability – only 199 inch (curb to curb).
- **No CDL requirement.** The RAVO R5 has a GVW of 25,132 lbs so no CDL is required to operate the sweeper. It also has the highest loading capacity in its class of 12,125 lbs.



R5

SIZE: 25,132 lbs GVW

SWEEP SPEED: 0 – 9 mph

HOPPER CAPACITY: 6.5 yd^3

WATER TANK: 160 gal

FUEL TANK: 28 gal

TYPICAL PAYLOAD: 12,125 lbs

SWEEP WIDTH:

- 95" (Standard)
- Up to 130" (with 3rd broom)

ENGINE: Cummins QSF3.8 Diesel 4 Cyl.

Leave nothing behind

The R5 achieves best-in-class performance by offering customers:

- Pure vacuum technology, with a powerful fan made from wear resistant steel alloy.
- Unrivaled debris compaction rate.
- Short stainless steel, rubber coated suction tube to deliver debris directly to the hopper.
- Highest payload in its class.
- Stainless steel hopper as standard.

Trusted reliability

The RAVO R5 has a reputation for reliability thanks to its design, which simplifies maintenance and maximizes uptime. The innovative features that make it so easy to maintain also result in a longer service life for the vehicle and lower operating costs. These components include:

- A simple and effective fan cleaning system.
- Large service hatches for easy access to the hopper.
- Only 15 centrally combined greasing points.
- Time saving, easy to change brooms.
- Extremely robust CORTEN steel chassis.
- Lifetime warranty on stainless steel hopper* *(*for original purchaser).*







R5 TECHNICAL SPECIFICATIONS

Suction System

Pick-up Head Dimensions (L x W)	4.7 x 24.8 in / 112 x 630 mm
Pick-up Head Material	Corten Steel (with Linatex coating)
Suction Tube Diameter	8.9 in / 225 mm
Suction Tube Material	Stainless Steel (with Linatex coating)

Broom System

Type	Pulled Broom System
Operation	Hydraulic with Joystick
Available Broom Diameter	35 in / 750 mm
Broom Rotation Rate	0 - 210 rpm

Brakes & Electrical System

Front Axle Brakes	Hydraulically Operated Disk Brakes
Rear Axle Brakes	Hydrostatic Hydraulic Actuated Drum Brakes
Front Suspension	Independent Hydropneumatic
Rear Suspension	Rubber Cone Springs
Battery	2 x 12/72 V/Ah

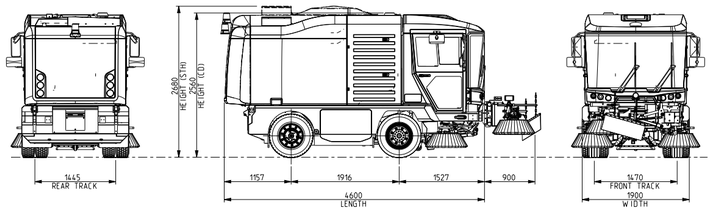
Maintenance

Hopper Material	Stainless Steel (Interior) / ABS Plastic Cladding (Exterior)
Number of Lubrication Points	15
General Warranty	2 Years or 2000 Engine Hours *(Whichever is reached first)*
Hopper & Chassis Warranty	Lifetime (**for original purchaser).*

Wellbeing

Noise LWA	79 dBA at 50ft. Distance
Dust Filtration	PM10 Standard

Standard vs. Container Dump

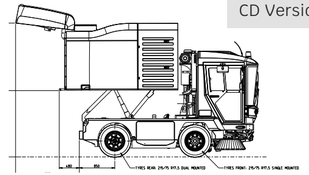


	Standard (STH)	Container Dump (CD)
Volume	6.5 yd^3 / 5 m^3	5 yd^3 / 4 m^3
Length	182 in / 4625 mm	182 in / 4625 mm
Height	106 in / 2700 mm	98 in / 2510 mm
Dumping Height	33 in / 850 mm	34-61 in / 860-1550 mm
Width (inc. Mirrors)	90 in / 2280 mm	90 in / 2280 mm
Wheelbase	76 in / 1916 mm	76 in / 1916 mm
Sweeping Width	95 - 130 in / 2200-3300 mm (with 3rd broom)	95 - 130 in / 2200-3300 mm (with 3rd broom)
Climbing Ability	Up to 30% Gradient	Up to 30% Gradient
Vehicle Weight	25,132 lbs / 11400 kg	25,132 lbs / 11400 kg
Min. Total Curb Weight	13,100 lbs / 6070 kg	13,845 lbs / 6280 kg
Payload Capacity	12,125 lbs / 5330 kg	11,570 lbs / 5120 kg

Engine

Engine & Drive	Cummins QSF3.8 Diesel 4 Cyl.
Capacity	3.8 L
Max. Torque	360 lb.ft @ 1600 rpm
Max. Power	138 hp @ 2300 rpm
Drive	Linde/Hydrostatic Continuously Variable

CD Version



RAVO **R5e**

Reliable electric RAVO technology – the first and still the best

The R5e combines all of the benefits of the R5 with innovative electric technology, offering customers the performance they expect plus:

Low Noise | Optimized Energy Usage | Battery Management | Fast Charge Capability



With powerful all-electric performance and exceptional maneuverability, the R5e is the ideal sweeping solution in a range of urban environments.

- **Optimized electric performance.** The R5e's Battery Management System optimizes the level of kW/h consumption to offer full shift autonomy.
- **The preferred choice.** RAVO's LiFePO4 (Lithium Iron Phosphate) battery has been specifically chosen to offer customers safe and sustainable battery technology, combined with the longest life on the market.
- **Warranty that has you covered.** Have the peace of mind that the warranty of your R5e battery is 8000 hours or 5 years.
- **Cabin Preheating & Cooling.** Pre-set the temperature of the cabin before the start of your shift. Preconditioning allows you to heat or cool the cabin to a comfortable level while the RAVO is plugged in. By using power from the charger, battery energy is being preserved to maximize the operating range.

R5e

BATTERY: Flash Lithium Iron Phosphate (LiFePO4)

SIZE: 25,133 lbs GVW

BATTERY CAPACITY: 100 kWh / 480 v

SWEEP SPEED: 0 - 9 mph

HOPPER CAPACITY: 6.5 yd^3

WATER TANK: 160 gal

SWEEP WIDTH:

- 95" (Standard)
- Up to 130" (with 3rd broom)

CHARGING SPECS:

Level 2 Charging Station
208-240 VAC, Single Phase @ 40 amps, minimum 8kW/h output, Type 1 J1772 Charging Plug.

Level 2 DC Charging Station
50kW/h @ 600 VDC

100% performance, 0% emissions

The fully electric R5e doesn't rely on an internal combustion engine for driving and sweeping which means that customers achieve the performance they expect from their RAVO sweeper, without emitting CO^2 or Nitrogen Oxides into the environment.

Quiet

At an industry-low 64 dB outside the cabin, the R5e makes early-morning and late-night shifts viable. Inside the cabin, exceptional soundproofing technology results in low noise levels for operators. The maximum sound level is no more than 61 dB.

Regenerative braking system

The R5e generates its own energy. When the accelerator is released, the electric motor works like an alternator – the energy that is generated is used to recharge battery. The regenerative braking system allows optimal efficiency of the sweeper, maximizes its autonomy and reduces its operating cost.

Reduced downtime, more cost savings

The R5e doesn't have an engine to service and therefore, relies on less hydraulic parts and hoses than a diesel version. This results in maintenance cost savings of up to 50%.







R5e TECHNICAL SPECIFICATIONS

Suction System

Pick-up Head Dimensions (L x W)	4.7 x 24.8 in / 112 x 630 mm
Pick-up Head Material	Corten Steel (with Linatex coating)
Suction Tube Diameter	8.9 in / 225 mm
Suction Tube Material	Stainless Steel (with Linatex coating)

Broom System

Type	Pulled Broom System
Operation	Hydraulic with Joystick
Available Broom Diameter	35 in / 750 mm
Broom Rotation Rate	0 - 210 rpm

Brakes

Front Axle Brakes	Disc Brakes
Rear Axle Brakes	Hydraulic Drum Brakes Electrically Regenerative
Front Suspension	Independent Hydropneumatic
Rear Suspension	Rubber Cone Springs

Maintenance

Hopper Material	Stainless Steel (Interior) / ABS Plastic Cladding (Exterior)
Number of Lubrication Points	15
Battery Warranty* **	5 Years or 3000 Cycles
Warranty* **	2 Years or 2000 Cycles

Noise Emissions

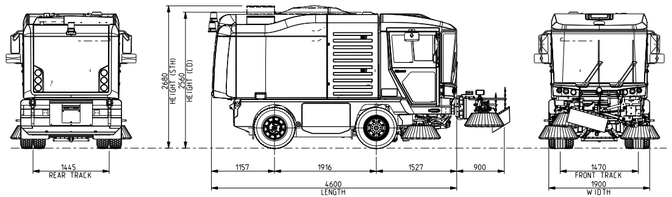
Interior Sound Pressure (LWA)	61 dB
Guaranteed Sound Power Level (LPA)	64 dB



Electric Motor & Drive System

Battery Capacity	100 kW/h / 480 volt
Battery Type	Lithium Iron Phosphate (LiFePO4)
Max. Torque / Power	765 (Nm) / 150 kW (peak) - 70 kW (nominal)
Chargers (Included with Machine)	22 kW AC Internal
Powertrain	Electric Three-Phase Permanent Magnet Motor
Performance*	Full Shift Autonomy
Transit Speed**	0-28 mph / 0-45 km/h

Standard vs. Container Dump



	Standard	Container Dump (CD)
Volume	6.5 yd^3 / 5 m^3	5 yd^3 / 4 m^3
Length	182 in /4625 mm	182 in / 4625 mm
Height	107 in / 2705 mm	101 in / 2560 mm
Dumping Height	33 in / 850 mm	34-61 in / 860-1550 mm
Width (inc. Mirrors)	90 in / 2280 mm	90 in / 2280 mm
Wheelbase	76 in / 1916 mm	76 in / 1916 mm
Sweep Width	95 - 130 in / 2200-3300 mm (with 3rd broom)	95 - 130 in / 2200-3300 mm (with 3rd broom)
Vehicle Weight	25,132 lbs / 11400 kg	25,132 lbs / 11400 kg
Min. Total Curb Weight	14,330 lbs / 6500 kg	14,793 lbs / 6710 kg
Paylod Capacity	10,798 lbs / 4900 kg	10,335 lbs / 4690 kg

* Depending on user profile and use of opportunity charging. ** Depending on local legislation. *** Whichever is reached first.

OPERATOR FIRST

Performance, visibility and safety for all applications

At RAVO, our focus is on the operators behind the wheel of our sweepers - that's why our machines offer cabin comfort, unwavering safety standards and intuitive operation.

The slightly tilted panoramic windscreen of the R5 and R5e provides excellent visibility for the operator to carry out their work safely - and with a low cabin entry height of just 33", the machine is easily accessible.

Both the R5 and R5e are equipped with a a luxury BE-GE heated and air suspended seat which redefines operator comfort. With its wide range of settings it can be fully adjusted to the operator's liking.







Next Generation Telematics.

RAVO sweepers are equipped with an onboard telematics system that collects 50 signals from the CANbus system, as well as collecting location data and delivering updates on sweeper route information.

As part of the telematics system, the operator has access to data from your dashboard, or your own fleet management system, via an API connection.

OPTIONS

Tailor your RAVO to meet the demands of your sweeping tasks



RAVO R5e Container Dump Option



RAVO R5e Third Broom Option

CONTAINER DUMP
> A hopper variant that allows the collected debris to be deposited directly into a container. The dumping height is 61".

THIRD BROOM
> Increase reach and remove weeds without the need to use chemicals with the Third Broom option - adding extra versatility to the already agile RAVO sweeper. 30" diameter.

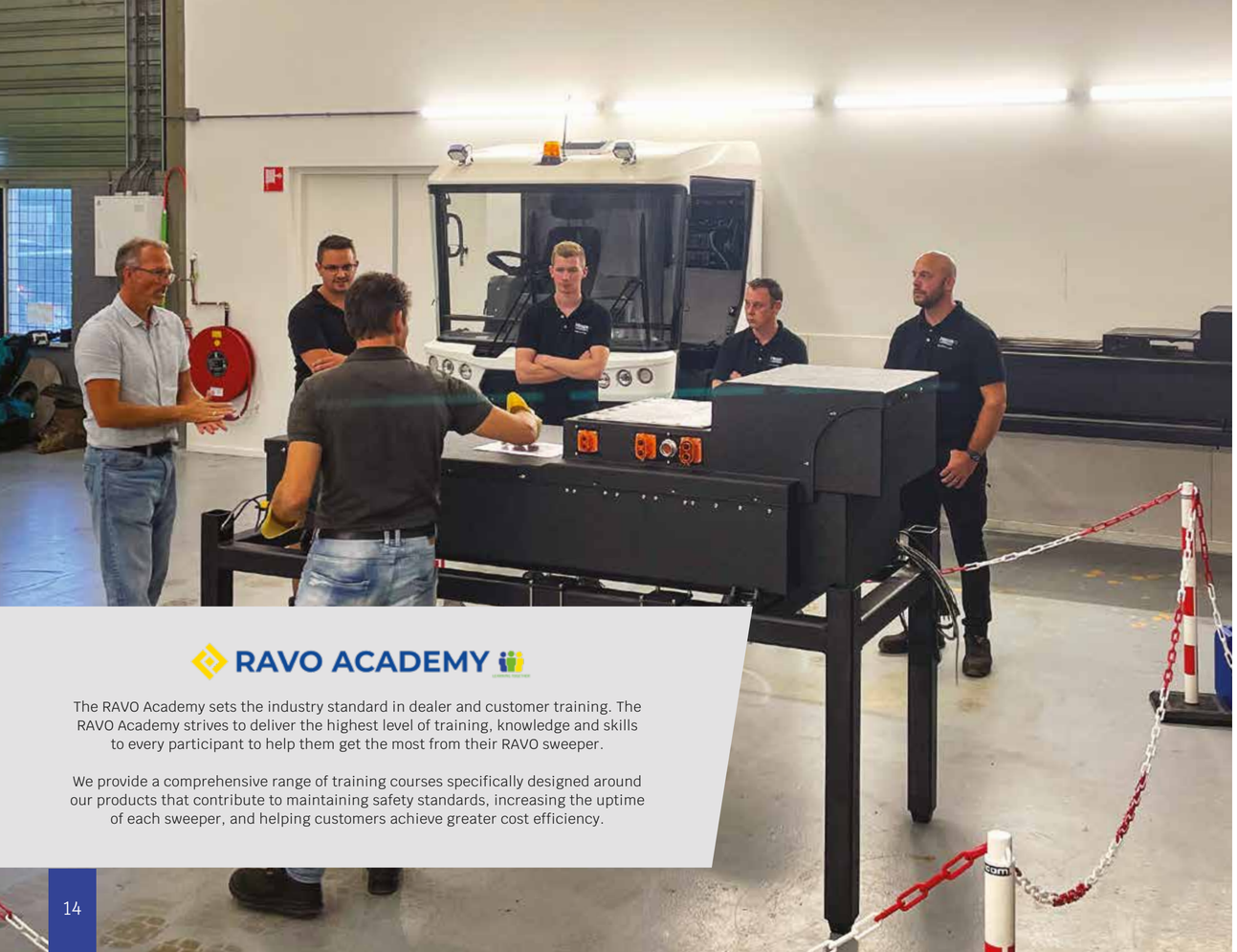
SUCTION TUBE SHUTTER
> The hydraulically operated shutter suction tube opens or closes automatically when the fan is switched on or off to avoid excess debris and water falling to the ground.

HYDRAULICALLY SUPPORTED WANDERHOSE
> The powerful RAVO wanderhose, now with hydraulic support, is ideal for sucking leaves, emptying gullies and collecting debris from bins. It is supported by a hydraulic cylinder to lower or raise the hose, making operation easy for the operator.

HEAVY DUTY PACKAGE
> For sweeping heavy materials (sand, grit, etc.), the Heavy Duty Package offers a coated suction system to preserve and protect your sweeper from abrasion.

WATER RECYCLING
> Sweep up to 2.5 times longer with water being circulated from the hopper to the suction nozzle and back again, meaning that fresh water is only needed for the nozzles on the brushes. As a bonus, the water recycling system, which is easy to clean, suppresses dust emissions as well.

HIGH PRESSURE WATER PUMP (4 gal per min. @ 2,175 PSI)
> Quickly clean the inside of the hopper, the brooms, the suction system or any piece of street furniture with the spray lance.



RAVO ACADEMY

The RAVO Academy sets the industry standard in dealer and customer training. The RAVO Academy strives to deliver the highest level of training, knowledge and skills to every participant to help them get the most from their RAVO sweeper.

We provide a comprehensive range of training courses specifically designed around our products that contribute to maintaining safety standards, increasing the uptime of each sweeper, and helping customers achieve greater cost efficiency.

AFTER SALES SUPPORT

Genuine RAVO parts

The best way to ensure your machine remains working in top condition is by always using Genuine RAVO parts. With a high first time pick rate and a dedicated parts facility in the United States, we'll have your parts to you as quickly as possible.

Class-leading service and Dealer Network

RAVO understands that keeping your machine on the road is one of our most important jobs. That's why we prioritize a Dealer Network that's as powerful as our machines. Find your local dealer for more information about the service options available to you: **ravo.fayat.com**

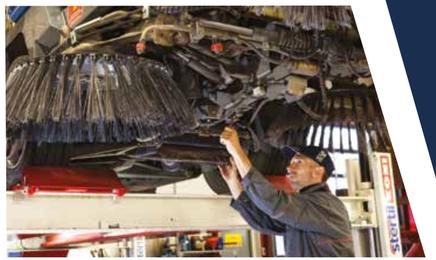
myRAVO

myRAVO is a state-of-the-art online portal to help our dealers and customers keep every RAVO machine operating in peak condition. Features include:

- Access to the latest information on all RAVO machines.
- Technical documentation for all models.
- Access to warranty services.
- Marketing and sales support information.







Every effort has been made to ensure that the information in this brochure is correct. RAVO B.V. is not responsible for printing errors or administrative errors.

VI, Feb 2024



The industry-standard for pure vacuum street sweepers:

- Unrivaled compaction rate.
- Exceptional suction performance.
- Maintenance-friendly, highly durable broom system.
- Electric and diesel, trusted by customers worldwide.

Discover the full RAVO range: **ravo.fayat.com**

Dealer

RAVO
FAYAT GROUP

Fayat Cleantech America
725A Imperial Court
Charlotte, North Carolina 28273

Tel: 803-338-0671
Email: sales.admin@cleantech.fayat.com

CARING FOR A **CLEAN FUTURE**