

# MAXI-COMPACT SWEEPERS

The industry reference in maxi-compact sweepers. Expertly engineered to deliver exceptional performance.



## RAVO R5 & R5e

HIGH PERFORMANCE 5m<sup>3</sup> COMPACT ROAD SWEEPERS



# WELCOME TO RAVO

High performance road sweeping & cleaning solutions

With a long and pioneering history in the industry, RAVO is a leading manufacturer of high-quality compact road sweeping solutions spanning from 1 to 5 cubic metre hopper capacities. RAVO street sweepers are durable and reliable machines, engineered with operator efficiency, comfort and safety in mind.

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



The leader in Maxi-Compact sweepers

The **R5** and the **R5e** set the standard for performance, quality and durability. RAVO **diesel** and **electric** street 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](http://ravo.fayat.com)



# RAVO R5

Robust, reliable and ready to work

With over 12,000 units sold to date, 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 rate and large hopper capacity.
- **Automatic ride height/self-leveling system.** Maintain constant self leveled brush pressure for the best sweeping results and reduced brush wear.
- **Robust, maintenance-friendly brush system.** The trusted RAVO brush system design is maintenance-friendly and has no greasing points.
- **72 km/h transit speed.** Travel between job sites quickly and easily thanks to the fast transit speed option (up to 72km/h).
- **Best-in-class turning circle.** Sweep the tightest corners and dead end streets thanks to the R5's exceptional manoeuvrability.



## R5

**SIZE:** 11.4 tonnes GVW

**SWEEP SPEED:** 0 - 15 km/h

**HOPPER CAPACITY:** 5.0 m<sup>3</sup>

**WATER TANK:** 600 litres

**FUEL TANK:** 120 litres

**TYPICAL PAYLOAD:** 4650 - 5260 kg

**SWEEP WIDTH:**

- > 2400 mm
- > Up to 3300 mm (with Third Brush)

**ENGINE:** IVECO Euro 6E 4.5 L Diesel 4 Cylinder  
118 kW / 160 HP

### Leave nothing behind

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

- Unmatched suction power.
- Unrivalled debris compaction rate.
- Short stainless steel 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 maximises uptime. Special features to ease maintenance result in a longer service life and lower operating costs. These features 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 brushes.
- Extremely robust CORTEN steel chassis, guaranteed for 5 years against corrosion.





# R5 TECHNICAL SPECIFICATIONS

## Suction System

<b>Suction Nozzle Dimensions (L x W)</b>	112 x 630 mm
<b>Suction Nozzle Material</b>	Corten Steel (Optional: Wear Resistant Coating)
<b>Suction Tube Diameter</b>	225 mm
<b>Suction Tube Material</b>	Stainless Steel (Optional: Wear Resistant Coating)

## Brush System

<b>Type</b>	Pulled Brush System
<b>Operation</b>	Hydraulic with Joystick
<b>Brush Diameter</b>	750 mm (Optional: 900 mm)
<b>Brush Rotation Rate</b>	0 - 210 rpm

## Brakes & Electrical System

<b>Front Axle Brakes</b>	Disc Brakes
<b>Rear Axle Brakes</b>	Drum Brakes
<b>Front Suspension</b>	Independent Hydropneumatic
<b>Rear Suspension</b>	Rubber Cone Springs
<b>Battery</b>	2 x 12/72 V/Ah

## Maintenance

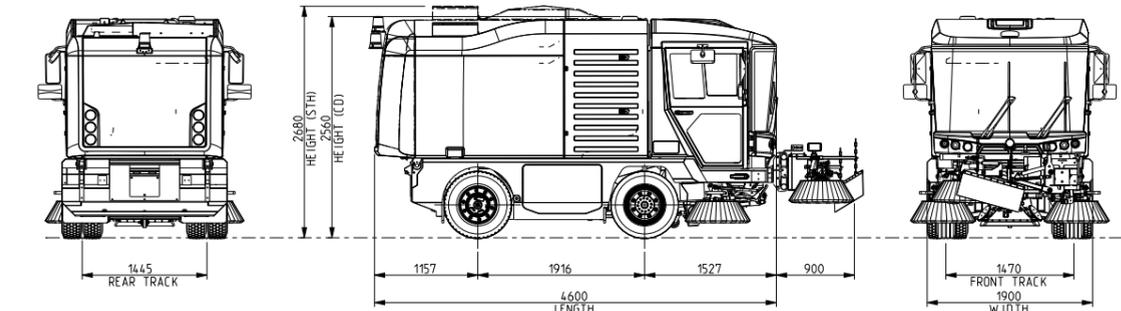
<b>Hopper Material</b>	Stainless Steel (Interior) / ABS Plastic Cladding (Exterior)
<b>Number of Lubrication Points</b>	15
<b>Warranty</b>	2 Years or 2000 Engine Hours (Whichever is reached first)

## Wellbeing

<b>Noise LPA (Inside Cabin)</b>	74 dB
<b>Noise LWA (Outside Cabin)</b>	110 dB (97 dB optional)

\* Depending on local legislation

## Standard vs. Container Dump



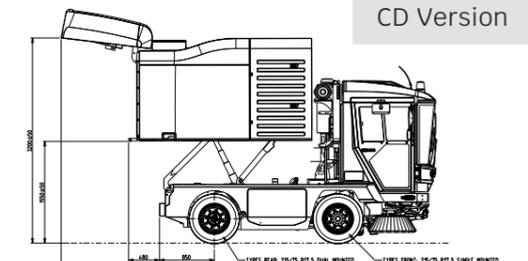
Standard (STH)

Container Dump (CD)

<b>Gross Volume</b>	5 m <sup>3</sup>	4 m <sup>3</sup>
<b>Length</b>	4625 mm	4625 mm
<b>Height</b>	2700 mm	2510 mm
<b>Dumping Height</b>	850 mm	860 - 1550 mm
<b>Width (inc. Mirrors)</b>	2280 mm	2280 mm
<b>Wheelbase</b>	1916 mm	1916 mm
<b>Sweeping Width</b>	2200 - 3300 mm (with Third Brush)	2200 - 3300 mm (with Third Brush)
<b>Climbing Ability</b>	Up to 30% Gradient	Up to 30% Gradient
<b>Vehicle Weight</b>	11400 kg	11400 kg
<b>Min. Total Kerb Weight</b>	6070 kg	6280 kg
<b>Max. Load Capacity</b>	5330 kg	5120 kg

## Engine

<b>Engine &amp; Drive</b>	Euro 6E
<b>Capacity</b>	4.5 L
<b>Max. Torque</b>	580 @ 1250 - 1940 rpm
<b>Max. Power</b>	118 kW (160 hp) @ 2500 rpm
<b>Type</b>	Iveco Diesel 4 Cylinder
<b>Transit Speed*</b>	0 - 72 km/h
<b>Drive</b>	Hydrostatic



CD Version

# RAVO R5e

Reliable electric RAVO technology – the first and consistently 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 manoeuvrability, the R5e is the ideal street sweeper for a wide range of urban environments.

- **Optimized electric performance.** The R5e's Battery Management System optimises the level of kW/h consumption to offer full shift autonomy.
- **The preferred battery choice.** RAVO's Lithium Iron Phosphate battery has been specifically chosen to offer customers a safe and sustainable battery technology, combined with the longest battery life on the market.
- **An industry-leading warranty that's got you covered.** The R5e comes with the full peace of mind that a battery warranty guaranteeing no less than 8,000 operation hours or five years (whichever comes first) brings with it.



## R5e

**BATTERY:** Flash Lithium Iron Phosphate (LiFePO4)

**BATTERY CAPACITY:** 100 kWh / 480 v (120kw optional)

**SWEEP SPEED:** 0 - 15 km/h

**HOPPER CAPACITY:** 5 m<sup>3</sup>

**WATER TANK:** 600 litres

**SWEEP WIDTH:**

- > 2400 mm
- > Up to 3300 mm (with Third Brush)

**CHARGING OPTIONS:**

- > Type 2 (IEC 62196-2) offers a maximum rate of 22 kW/h. With this charging method, a full charge takes approx 4.5 hours.
- > A With a CCS Combo 2 (IEC 62196-3) connection, the battery is charged at 70 kW/h via an external charger that fully recharges the battery in approx. 2 hours.

### 100% performance, 0% emissions

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

### Quiet

At an industry-low 93 dB outside the cabin, the R5e makes early-morning and late-night shifts viable. Inside the cabin, exceptional soundproofing technology means low noise levels for operators, with a maximum noise level of 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 relies on less hydraulic parts and hoses than a diesel version, resulting in maintenance cost savings of up to 70%.



**High Pressure Spray Gun**  
Easily clean street furniture, or your sweeper at the end of each shift, with a **powerful spray gun**.

ADDITIONAL OPTION

**LED Beacons**  
Enhance the visibility of your sweeper with LED beacons, now included as standard.

INCLUDED AS STANDARD

**Roof-Mounted Water Tank**  
Increase the overall water capacity to 950 litres with an **additional roof-mounted 420 litre water tank**.

ADDITIONAL OPTION

**Hydraulically Supported Wanderhose**  
RAVO's powerful wanderhose, now with **hydraulic support**.

ADDITIONAL OPTION

**LiFePO4 Battery**  
Enlarged **Lithium Iron Phosphate battery** for enhanced performance and safety.

INCLUDED AS STANDARD FOR R5E

**BE-GE Driver Seat**  
The new **heated and air suspended BE-GE drivers seat** redefines operator comfort.

ADDITIONAL OPTION

**Tinted Windscreen**  
The R5e is now equipped with a tinted windscreen to offer the **improved visibility** in sunlight.

INCLUDED AS STANDARD

**Cabin Preconditioning**  
**Pre-set the cabin temperature** before you start your shift while the machine is on charge.

ADDITIONAL OPTION FOR R5E

**Water Recycling**  
**Sweep up to 2.5 times longer** with RAVO's innovative water recycling system.

ADDITIONAL OPTION



**NEW**

**UPGRADES FOR 2024**  
Model Year Change enhancements for the RAVO R5/R5e.

**THE BEST-IN-CLASS BATTERY**



The RAVO R5e is powered by **LiFePO4** (Lithium Iron Phosphate) batteries, providing reliable and safe power, fast charging capabilities and a very long lifespan; backed by an industry-leading warranty covering 8,000 hours or five years.

The battery is also a sound environmental investment since it is free of toxic materials and can be fully recycled.

**Optimised Electric Performance**

Lithium Iron Phosphate (LFP) battery technology, in combination with RAVO's battery management system, offers our customers true full shift autonomy. LFP is the preferred choice of battery technology for heavy duty equipment for a number of reasons, including:

-  **PERFORMANCE**  
Continued high performance and capacity throughout its extensive life (over 5,000 charging cycles with minimum degradation).
-  **SUSTAINABILITY**  
LiFePO4 batteries cannot leak, are fully recyclable, non-toxic, and do not contain harmful heavy metals (such as cobalt or nickel)
-  **SAFETY**  
LiFePO4 batteries cannot overheat and are incombustible.



# OPERATING OPTIONS

## WATER RECYCLING SYSTEM



> 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.

## ROOF-MOUNTED WATER TANK



> An extra roof mounted 420-litre tank will give the sweeper a class leading total water capacity of over 950 litres without taking hopper space away. This enables a longer operating time between water refills, keeping the sweeper on the streets and on the go.

## HYDRAULICALLY SUPPORTED WANDERHOSE



> The powerful RAVO wanderhose, now with hydraulic support, 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.

## CRUISE CONTROL IN SWEEP MODE



> Fully concentrate on the sweeping job by engaging cruise control in sweep mode. The cruise control mode allows the RAVO to sweep with a constant speed ideal for long straight roads.

## SPRAY GUN & HIGH PRESSURE WATER PUMP



> The new spray gun now has two spray settings: a very powerful jet stream, and a wide-spread fan pattern that covers a larger area with greater efficiency. With this new high-pressure spray gun, operators can quickly and easily clean the sweeper and street furniture like bins and bus stops.

# CABIN OPTIONS



## LUXURY HEATED & AIR SUSPENDED BE-GE OPERATOR SEAT

> This luxury BE-GE heated and air suspended seat redefines operator comfort. With its wide range of settings it can be fully adjusted to the operators liking. Standard features include weight independent height adjustment, quick air release, air operated tilt of seat cushion and release of slide rails, lumbar and side support, an integrated headrest and a manual air controlled height adjustment system.



## CABIN PREHEATING AND COOLING

(AVAILABLE FOR THE RAVO R5e)

> 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 and battery energy is being preserved to maximize the operating range.



# R5e TECHNICAL SPECIFICATIONS

## Suction System

<b>Suction Nozzle Dimensions (L x W)</b>	112 x 630 mm
<b>Suction Nozzle Material</b>	Corten Steel (Optional: Wear Resistant Coating)
<b>Suction Tube Diameter</b>	225mm
<b>Suction Tube Material</b>	Stainless Steel (Optional: Wear Resistant Coating)

## Brush System

<b>Type</b>	Maintenance Free RAVO System
<b>Operation</b>	Hydraulic with Joystick
<b>Brush Diameter</b>	900 mm (Optional: 700 mm)
<b>Brush Rotation Rate</b>	0 - 210 rpm

## Brakes

<b>Front Axle Brakes</b>	Disc Brakes
<b>Rear Axle Brakes</b>	Drum Brakes
<b>Front Suspension</b>	Electrically Regenerative
<b>Rear Suspension</b>	Independent Hydropneumatic
	Rubber Cone Springs

## Maintenance

<b>Hopper Material</b>	Stainless Steel (Interior) / ABS Plastic Cladding (Exterior)
<b>Number of Lubrication Points</b>	15
<b>Battery Warranty***</b>	5 Years or 8000 Operating Hours
<b>Warranty***</b>	2 Years or 2500 Operating Hours

## Wellbeing

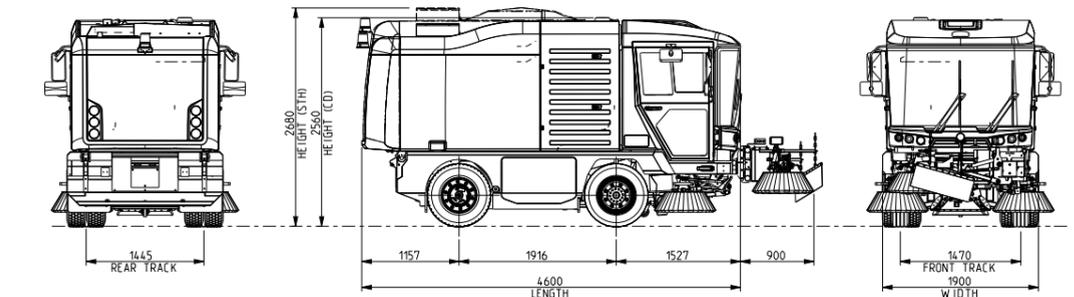
<b>Noise LPA (Inside Cabin)</b>	61 dB (Inside Cabin)
<b>Noise LWA (Outside Cabin)</b>	93 dB (Outside Cabin)



## Electric Motor & Drive System

<b>Battery Capacity</b>	100 kWh / 480 volt
<b>Battery Type</b>	Lithium Iron Phosphate (LiFePO4)
<b>Max. Torque / Power</b>	765 (Nm) / 150 kW (peak) - 70 kW (nominal)
<b>Chargers (Included with Machine)</b>	22 kW AC Internal
<b>Powertrain</b>	Electric Three-Phase Permanent Magnet Motor
<b>Performance*</b>	Completes a Full Shift
<b>Transit Speed**</b>	0 - 42 km/h

## Standard vs. Container Dump



	Standard	Container Dump (CD)
<b>Gross Volume</b>	5 m <sup>3</sup>	4 m <sup>3</sup>
<b>Length</b>	4625 mm	4625 mm
<b>Height</b>	2705 mm	2560 mm
<b>Dumping Height</b>	850 mm	860 - 1550 mm
<b>Width (inc. Mirrors)</b>	2280 mm	2280 mm
<b>Wheelbase</b>	1916 mm	1916 mm
<b>Sweeping Width</b>	2200 - 2400 mm	2200 - 2400 mm
<b>Vehicle Weight</b>	11400 kg	11400 kg
<b>Min. Total Kerb Weight</b>	6500 kg	6710 kg
<b>Max. Load Capacity</b>	4900 kg	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 a comfortable cabin, 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 85cm, the machine is easily accessible.

Each of the sweepers in our range delivers reliable performance and high levels of responsiveness that RAVO operators can count on every time they step in the cabin.



## Next Generation Telematics.

All 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 Propulse dashboard, or your own fleet management system, via an API connection.

# OPTIONS

Tailor your RAVO to meet the demands of your sweeping tasks



### CONTAINER DUMP

> A hopper variant that allows the collected debris to be deposited directly into a container. The dumping height is 1550m.

### THIRD BRUSH

> Increase reach and remove weeds without the need to use chemicals with the Third Brush option - adding extra versatility to the already agile RAVO sweeper.

### SHUTTER SUCTION TUBE

> 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.

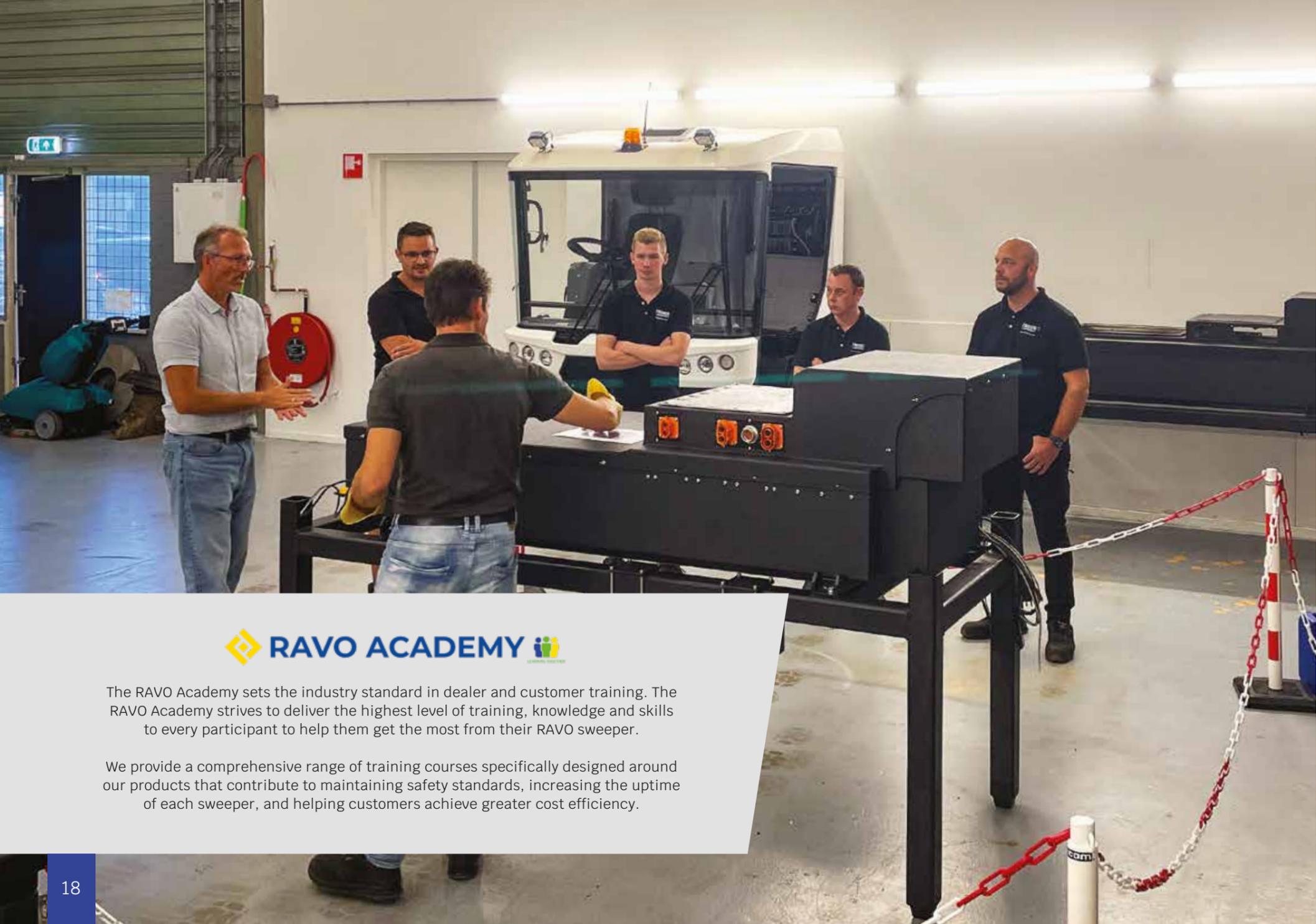
### HEAVY DUTY PACKAGE

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

### SWASHER

> The Swasher options adds a front spray bar, high pressure water gun and/or a boom to the top of the hopper for in-depth cleaning.





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 dedicated parts facilities stationed around Europe, we'll have your parts to you as quickly as possible, wherever you are in the world.



## 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 prioritise 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](http://ravo.fayat.com)



myRAVO is a state-of-the-art online portal to help our dealers and customers keep every RAVO machine operating in optimal 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.

## The industry-standard for Maxi-Compact sweepers:

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

Discover the full RAVO range: [ravo.fayat.com](https://ravo.fayat.com)



Dealer