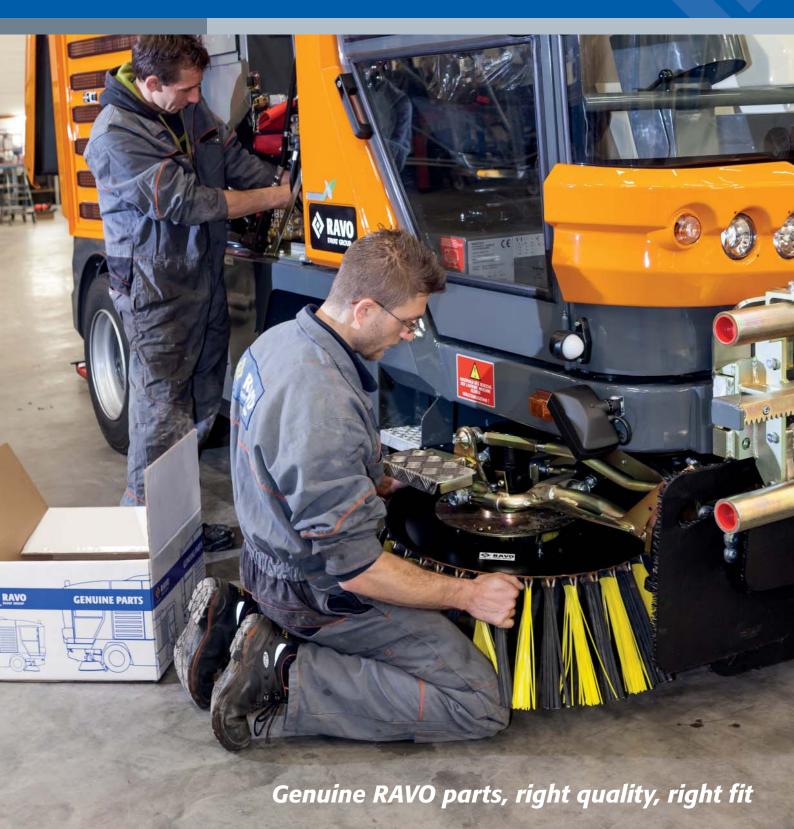




Parts Catalog 2017



GENUINE PARTS, **RIGHT QUALITY, RIGHT FIT** AND A **RELIABILITY** THAT KEEPS YOU GOING.

Genuine RAVO parts are built by the highest standards of quality, durability and performance. They are designed to maintain the optimal RAVO driving and sweeping performance and they increase the lifetime of your sweeper. A well maintained RAVO can keep you going for a very long time. The Genuine RAVO parts are carefully selected and tested under the heaviest circumstances to fit both your needs and those of your RAVO. Whether you are looking for service parts or suction line parts, accessories or repair parts, they are all available in our wide range of Genuine RAVO parts. Every Genuine Part comes with a one-year guarantee and meets the OEM specifications. Our committed and well trained dealer network can always provide you with the necessary advice.

This manual is published by the Parts & Service Department of RAVO B.V. and every effort is made to ensure that the information it contains is correct at the time of publication. Due to a policy of continuous development, however, RAVO reserves the right to alter the specification and to supply when so altered without reference to illustrations and descriptions in this manual.

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SERVICE & SUCTION LINE KITS

We fully understand that reliability and availability are crucial criteria on the job. Using RAVO Service & Suction Line kits containing genuine parts ensures continues availability of your RAVO sweeping equipment at low costs.

Our long term experience in the market has helped us understand what the owner of a RAVO requires to make machine maintenance quick and easy and at a low cost. Based on the same experience we have created Service Kits which can be used with the regular machine maintenance schedule.

Regular Service schedule RAVO 5 Series & 5 iSeries

Engine hours	500	1000	1500	2000	
Service	В	С	В	С	
Applicable Kit	В	С	В	C+	

Note: This schedule applies to machines with usage under normal circumstances, like city centers. For heavy duty usage please consult the table in the service manual.

When using the machine in the sweeping mode there is wear of the parts in the suction line of the machine. RAVO Suction line kits contain exactly those parts which needs to be replaced regularly to maintain the best cleaning result.

Indicative hours for wear and replacement of suction line parts on a RAVO 5 Series & 5 iSeries

Part	Indicative replacement at Sweeping hours
Suction mouth rubbers	100~500
Water spray nozzles (8x)	100~500
Swivel wheel	100~500

There are two types of Suction Line parts kits which both contain all of above Suction line parts. The easy mount Suction line kit includes the mounting strips on the rubbers which enables you to replace worn out suction mouth rubbers in case the screws of the old strips are corroded or worn out.

IMPORTANT INFORMATION:

The service kits are applicable on the RAVO 5 Series with EU4, EU5 and Tier3 engines, manufactured after 02-2008 or from chassisnumber XL95F4C3C80020336 and on all the RAVO 5 iSeries.

Service kits provide the parts for the scheduled maintenance. Make sure all scheduled maintenance tasks are performed properly according to the maintenance registration book.

Cabin Air Filters

All service kits contain a Cabin Air Filter (CAF) and an engine air filter but what is the importance of replacing these filters timely? These filters are placed at a location in the machine far from sight, and what is not seen from the outside will be easily forgotten.

Cars, trucks and sweepers all have a filter which cleans the air coming from the outside to the inside of the Cabin. This filter cleans the air from all kind of particles, bacterias and other contaminations which exist in the air and on the jobsite. Diesel and dust particles for example can cause serious illness to the operators on the machine. An air cleaning filter is especially for a sweeping machine vital because of the additional dust produced when sweeping.



Replace the CAF timely to create a healthy working atmosphere for your sweeper operator.

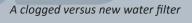
Picture showing dirty CAF

The importance of the water filter (included in service kits C and C+)

The picture below shows what happens to a water filter when it is not replaced according to the service intervals. The filter is clogged with dirt like sand and mud which entered the tank with dirty water. This clogged filter will hardly not pass on filtered water to the water systems of the RAVO sweeper machine. As a consequence, systems like the water spray nozzles in the suction mouth and the nozzles in front of the brush system are not spraying the necessary water to clean the suction system of the sweeping machine internally. This can give all kinds of side effects, like heavy wear on the suction tubes, a clogged fan housing and inability to suppress dust.

Available clean water is also of great essence when there is a swasher system installed on the sweeper. Dirty water can cause damage to the swasher system and the swasher system requires fast delivery of clean water to wash the streets effectively.

Replace the water filters according to the maintenance schedule.



Engine air filters

Engine air filters can get clogged by all kinds of particles from the air, however, diesel emission particles have a very intensive influence on the clogging process of your air filter (see picture).

Clogging of the air filter can cause:

- Poor fuel efficiency
- Unstable idling
- Worse emission
- Lower engine power
- Damage to the engine

Replace your air filter according the maintenance schedule.

Engine fuel filters (included in all service kits)

Engine fuel filters have always been part of preventive maintenance to get more and better performance out of your RAVO sweeper. Todays' high performance engines use all kind of sophisticated technologies like for example the high pressure common rail systems and fuel injectors. All these refined technologies require delivery of clean fuels to deliver best performance. Clogged fuel filters and delivery of dirty fuels may cause serious damage to your sweeper engine and even stop it from operating.

Please take care of replacing the fuel filter according to the maintenance schedule.

New engine air filter versus an example of a clogged version.

Dirty fuel filter

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RAVO	Kit part nr. inclusive gearbox oil	Kit part nr. exclusive gearbox oil
5 Series ¹	RAV5750010	RAV5750015
5 iSeries ² Tier 3	RAV5750040	RAV5750042
5 iSeries ² Tier 4	RAV5750082	RAV5750083

The B service is the most frequent service in which all of the important filters are replaced. Please make sure to use RAVO genuine parts to prevent subsequent damage and to preserve the warranty terms and conditions.

Notes:

 $^{\rm 1}$ only applicable on machines manufactured from 02-2008 to 12-2014 $^{\rm 2}$ only applicable on machines manufactured after 01-2015

Contents kit B service (inclusive gearbox oil):

Part Description	PNs Tier 3	PNs Tier 4	Pieces in Kit	
Engine fuel filter	RAV5013261	RAV5140259	1	
Oil sump ventilation filter	RAV5013262	(Not required)	1	
Engine oil filter	RAV5013260	RAV5013395	1	
Engine air filter	RAV5010462	RAV5010462	1	
O-ring	RAV8017282180	RAV5013398	1	
Cabin Air Filter (CAF)	(5 Series) RAV5033055 / (5 iSeries) RAV5031550	RAV5031550	1	4
Gearbox oil (5 Liters)	RAV5014350	RAV5014350	1	
Fuel pre-filter	(Not required)	RAV5140256	1	



Service Kit C Service – 1000 Hours

RAVO	Kit part nr. inclusive gearbox oil	Kit part nr. exclusive gearbox oil
5 Series ¹	RAV5750020	RAV5750025
5 iSeries ² Tier 3	RAV5750044	RAV5750046
5 iSeries ² Tier 4	RAV 5750084	RAV5750085

Hydraulic oil, engine oil and engine fuel need to stay very clean to safeguard a minimum wear on moving parts which are responsible for the performance of the RAVO sweeping machine. In the C service all filters in the RAVO sweeper are replaced with a new one. Please use the C kit to be sure you are using RAVO genuine parts to prevent having subsequent damage and to preserve your warranty terms and conditions.

Notes:

- ¹ only applicable on machines manufactured from 02-2008 to 12-2014
- ² only applicable on machines manufactured after 01-2015

Contents Kit C service (inclusive gearbox oil):

Part Description	PNs Tier 3	PNs Tier 4	Pieces in Kit
Engine fuel filter	RAV5013261	RAV5140259	1
Oil sump ventilation filter	RAV5013262	(not required)	1
Engine oil filter	RAV5013260	RAV5013395	1
Engine air filter	RAV5010462	RAV5010462	1
O-ring	RAV8017282180	RAV5013398	1
Cabin Air Filter (CAF)	(5 Series) RAV5033055 / (5 iSeries) RAV5031550	RAV5031550	1
Gearbox oil (5 Liters)	RAV5014350	RAV5014350	1
Fuel pre filter	RAV5140101	RAV5140256	1
Hydraulic oil filter drive system	RAV4010425	RAV4010425	1
Hydraulic oil filter brake/front suspension system	RAV5060047	RAV5060047	1
Hydraulic oil filter return	RAV5060073	RAV5060073	1
Water filter cloth	RAV5180330	RAV5180330	1

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Service Kit C+ Tier 3 Service – 2000 Hours

RAVO	Kit part nr. inclusive gearbox oil	Kit part nr. exclusive gearbox oil
5 Series ¹ Tier 3	RAV5750030	RAV5750035
5 iSeries ² Tier 3	RAV5750048	RAV5750052

Notes:

¹ only applicable on machines manufactured from 02-2008 to 12-2014 ² only applicable on machines manufactured after 01-2015

Contents of Kit C+ service (inclusive gearbox oil):

Part Description	PNs Tier 3	Pieces in Kit	(45)
Engine fuel filter	RAV5013261	1	10
Oil sump ventilation filter	RAV5013262	1	
Engine oil filter	RAV5013260	1	
Engine air filter	RAV5010462	1	
O-ring	RAV8017282180	1	
Cabin Air Filter (CAF)	(5 Series) RAV5033055 / (5 iSeries) RAV5031550	1	
Gearbox oil (5 Liters)	RAV5014350	1	
Fuel pre filter	RAV5140101	1	
Hydraulic oil filter drive system	RAV4010425	1	
Hydraulic oil filter brake/front suspension system	RAV5060047	1	
Hydraulic oil filter return	RAV5060073	1	
Water filter cloth	RAV5180330	1	
Multi-belt	RAV5015210	1	
V-belt, spray water pump	RAV5012165	1	2
V-belt, compressor of air-conditioning system	RAV5010140	2	



Service Kit C+ Tier 4 – 2000 HOURS

RAVO	Kit part nr. inclusive gearbox oil	Kit part nr. exclusive gearbox oil
5 iSeries ¹ Tier 4	RAV5750086	RAV5750087

Notes:

¹ only applicable on machines manufactured after 01-2015

Contents of Kit C+ service (inclusive gearbox oil):

Part Desc	ription	PNs Tier 4		Pieces in Kit
Engine fue	l filter	RAV5140259		1
Engine oil	filter	RAV5013395		1
Fuel pre fil	ter	RAV5140256		1
Engine air	filter	RAV5010462		1
O-ring		RAV5013398		1
Cabin Air F	ilter (CAF)	RAV5031550		1
Gearbox o	il (5 Liters)	RAV5014350		1
DEF supply	/ main filter	RAV5013393		1
Multi-belt,	engine cooling fan/generator	RAV5013382		1
V-belt, spra	ay water pump	RAV5012165		1
Hydraulic o	oil filter drive system	RAV4010425		1
Hydraulic o	oil filter brake / front suspension system	RAV5060047		1
Hydraulic o	pil filter return	RAV5060073		1
Water filte	r cloth	RAV5180330		1



Replace most important suction line parts with this kit in one go.

RAVO

Contents Suction Line Kit - Standard:

Part Description	Part Number	Pieces in Kit	
Suction nozzle rubber rear	RAV4240063	1	9.4
Suction nozzle rubber front	RAV4240073	1	
Suction nozzle rubber right+left	RAV4240042	2	
Wheel for swivel wheel	RAV4240101	1	
Water spray nozzle – for brush system	RAV2180225	4	
Water spray nozzle – for suction mouth	RAV4240030	4	
Set of Bolts and screws 22x (M6x40)	RAV4399000	1	

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SUCTION LINE KIT

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Suction Line Kit - Easy Mount Kit part number: RAV5752441

Replace most important suction line parts with this kit in one go.

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Contents Suction Line Kit – Easy Mount:

Part Description	Part Number	Pieces in Kit
Suction nozzle rubber rear incl. mounting strip steel	RAV4240064	1
Suction nozzle rubber front incl. mounting strip steel	RAV4240074	1
Suction nozzle rubber right + left incl. mounting strip steel	RAV4240043 + RAV4240053	2
Wheel for swivel wheel	RAV4240101	1
Water spray nozzle – for brush system	RAV2180225	4
Water spray nozzle – for suction mouth	RAV4240030	4

SUCTION LINE KIT

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GENUINE PARTS, INCREASE YOUR RAVO'S LIFETIME





SUCTION LINE PARTS: INDISPENSABLE FOR YOUR SWEEPING PERFORMANCE

A RAVO sweeper is especially famous for its high suction power and durability. The parts in the machine that are responsible for the high suction power are subjected to wear due to the air flow carrying sand, stones, bottles and all other sorts of street-refuse. Keeping the right suction power means using right fit parts. Genuine RAVO parts are built by the highest standards of quality, durability and performance. They are designed to fit the RAVO sweeper just right! This section of the Catalog represents all the wear parts for the RAVO 5 Series and RAVO 5 iSeries.





Suction nozzle Part number: RAV4241137

Maintain high suction power with your RAVO sweeper by using the original suction mouth; a proven design and quality maintaining high suction power on all 5 and 5 iSeries.



Suction nozzle complete assembly Part number: RAV5242998 (normal swivel wheel) Part number: RAV5243000 (with heavy duty swivel wheel)

Suction nozzle coated Part number: RAV4241138

Suction nozzle coated with a 6mm layer of coating extends lifetime of the suction nozzle considerably during sweeping in cities and heavy duty environments.





Suction nozzle coated complete assembly Part number: RAV5242999 (normal swivel wheel) Part number: RAV5243001 (with heavy duty swivel wheel)

Suction nozzle side rubber Part number: RAV4240042

Note: can be used on either left or right side of suction nozzle.

RAVO suction nozzle rubbers have the right size thickness and helps you keep the right road surface contact.

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Suction nozzle rear rubber Part number: RAV4240063

RAVO suction nozzle rubbers have the right size thickness and helps you keep the right road surface contact.

Suction nozzle rubber flap Part number: RAV4240073

RAVO suction nozzle rubers have the right size thickness and helps you keeping the right road surface contact.

Suction Line kit - Standard Part number: RAV5752440

For a complete set of suction mouth rubbers and detailed information please refer to the Service & Suction line kits.

Suction nozzle side rubber left -Pre- assembled with mounting strip

Part number: RAV4240043

The perfect replacement of the side rubber in case of corroded mounting strips or just for a quick replacement.





Suction nozzle side rubber right -Pre- assembled with mounting strip Part number: RAV4240053

The perfect replacement of the side rubber in case of corroded mounting strips or just for a quick replacement.

Suction nozzle rear rubber -Pre- assembled with mounting strip Part number: RAV4240064

The perfect replacement of the suction nozzle rear rubber in case of corroded mounting strips or just for a quick replacement.

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Suction nozzle rubber flap -Pre- assembled with mounting strip Part number: RAV4240074

The perfect replacement of the suction nozzle front rubber flap in case of corroded mounting strips or just for a quick replacement.

Suction nozzle wear kit – Easy Mount Part number: RAV5752441

For a complete set of suction mouth rubbers including steel mounting strips please refer to the to the Service & Suction Line Kits section for more detailed information.

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SUCTION LINE KIT

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Suction nozzle swivel wheel Part number: RAV4240101 Note: only wheel

Keeping a smooth guidance of the suction nozzle

Suction nozzle swivel wheel complete Part number: RAV4240080

Keeping a smooth guidance of the suction nozzle

Suction nozzle swivel wheel complete heavy duty Part number: RAV4240085 **Note:** inclusive suspension

Keep a smooth guidance of the suction nozzle in heavy duty road conditions.

Suction nozzle Guide wheel Part number: RAV4241000 Note: sold per piece

For a smooth guidance of the brush hairs over the suction nozzle. Preventing brushes and suction mouth from fast wear.







Suction nozzle - hub for guide wheel Part number: RAV4241010

Suction tube lower part Part number: RAV5080012

Made of Stainless steel, having a smooth surface creating optimum suction power.



Suction tube lower part coated Part number: RAV5080111

Suction tube coated with a 6mm layer of coating extends lifetime of the suction tube considerably during sweeping in cities and heavy duty environments.



Suction tube bend Part number: RAV508002790

Made of casted iron for a longer durability and perfect fitting. 30 years proven durability.

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Suction tube bend coated Part number: RAV5080142

A 8mm layer of coating on the top innerside of the tube bend, taking care for higher durability and extended lifetime when sweeping in cities or under heavy duty circumstances.

Suction tube extension in container for ST/STH container Part number: RAV5045710

Made of Stainless Steel for a smooth air flow.

Suction tube extension in container for ST/ STH container coated Part number: RAV5080156

Made of Stainless Steel for a smooth air flow and coated with a 6mm layer of coating taking care for extended lifetime of the tube.

Suction tube extension in container for CD container Part number: RAV5046465

Made of Stainless Steel for a smooth air flow.



Suction tube connection on container for ST/CD/STH container Part number: RAV5045420

Maintain a high smooth airflow between container and suction tubes with this connection.

Suction tube connection on container for ST/CD/STH container coated Part number: RAV5080171

Maintain a high smooth airflow between container and suction tubes with this connection. Its lifetime is extended by an inserted 6mm layer of coating.



Grooved ring sleeve Part number: RAV4240010 Note: for suction nozzle

Maintain a high smooth airflow between suction nozzle and suction tube with this ring sleeve.

Rubber seal ring Part number: RAV5080018 Note: 295 mm, for connection to container

Maintain a high smooth airflow between container and suction tubes with this connection.

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Water spray nozzle Part number: RAV2180225 Note: filter included

For a RAVO sweeper the use of water during operation is one of the most important liquids. It takes care for suppressing the dust around the machine and secondly, even more importantly, it reduces wear on all important suction line parts. Replace the nozzles timely by original new RAVO nozzles to keep a right supply of water to your brooms.



Water spray nozzle bronze Part number: RAV4240030 Note: material is bronze

For a RAVO sweeper the use of water during operation is one of the most important liquids. It takes care for suppressing the dust around the machine and secondly, even more importantly, it reduces wear on all important suction line parts. Replace the nozzles timely by original new RAVO nozzles to keep a right supply of water inside the sweepers suction line.



Tube water spray nozzle Part number left side: RAV5180802

Replace the tubes timely by original new RAVO tubes to keep a right supply of water inside the sweepers suction line.

Part nu Replace th a right sup

Tube water spray nozzle Part number right side: RAV5180800

Replace the tubes timely by original new RAVO tubes to keep a right supply of water inside the sweepers suction line.



Suction Fan - Standard Part number: RAV5040460

Suction fan designed to meet RAVO standards on creating high performance suction power. Manufactured under high precision to operate with a right balance in your sweeper.

Suction Fan - Heavy duty Part number: RAV4040057 Note: material is Borium

Idem properties to the standard suction fan version but made of Borium material which extends lifetime of the fan considerably under all circumstances.

RAVO BRUSHES: MAKE THE SWEEPING JOB COMPLETE

RAVO offers its brushes in batch sizes of 15 brushes per pallet. This has proven the most efficient way of shipping and stocking your brushes.

The availability of brushes may vary by country. Please contact your local RAVO dealer for further information.

RAVO BRUSHES: Make the sweeping Job Complete Buy 15 Brushes On a Pallet, Save 5%!

\$ 100

RAVO



Lightweight city sweeping low investment

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Material Brush Plate: Wood **Material Brushes:** Steel Quantity: 15 on a pallet **Part number Sweeping** Weight in kg width: (per brush) (full pallet): RAV5121021 750 mm 16 RAV5121028* 900 mm 17 * Please note for this brush a top plate is requires Part Number: RAV5122215

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Lightweight city sweeping moderate investment

Material Brush Plate: Material Brushes: Quantity:	Synthetic Steel 15 on a pallet	
Part number (full pallet):	Sweeping width:	Weight in kg (per brush)
RAV5121023	750 mm	14
RAV5121029*	900 mm	14
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* Please note for this brush a top plate is requires Part Number: RAV5122215

The Standard in sweeping qualitative & effective sweeping, inclusive wear indicator

Material Brush Plate: Material Brushes: Quantity:	Metal Steel 15 on a pallet	
Part number (full pallet):	Sweeping width:	Weight in kg (per brush)
RAV5121033	750 mm	17
RAV5121038	900 mm	19

Low noise and careful sweeping

Material Brush Plate: Material Brushes: Quantity: Additional advantage: Metal Nylon 15 on a pallet No scratching on delicate surfaces e.g. marmer

Part number (full pallet):	Sweeping width:	Weight in kg (per brush)
RAV5121034	750 mm	7
RAV5121031	900 mm	10



Moderate noise and qualitative sweeping

Material Brush Plate: Material Brushes: Quantity:	Metal Nylon & Steel mixture 15 on a pallet	
Part number (full pallet):	Sweeping width:	Weight in kg (per brush)
RAV5121036	750 mm	18
RAV5121032	900 mm	18







Low noise and effective sweeping

Material Brush Plate: Material Brushes: Quantity:	Metal Mixture of Nylon & Rubbe 15 on a pallet	rcoated steel
Part number (full pallet):	Sweeping width:	Weight in kg (per brush)
RAV5121037	750 mm	12
RAV5121039	900 mm	15



Material Brush Plate:	Metal	
Material Brushes:	Mixture of steel and cable (8x) plucks	
Quantity:	<mark>Sold per piece</mark>	
Part number	Sweeping	Weight in kg
(full pallet):	width:	(per brush)
RAV5121013	750 mm	21

BUT WE ALSO DO FULL CONTAINER SHIPMENTS:

Ø 750 mm Brushes:

20 ft container: +/- 295 units on Pallets ¹ 40 ft container: +/- 620 units on Pallets

Ø 900 mm Brushes:

20 ft container: +/- 225 units on Pallets 40 ft container: +/- 450 units on Pallets

¹ All quantities are indicative 20~25 brushes per pallet



REPLACEMENT PARTS: QUICKLY ON THE SWEEPING JOB AGAIN

Following section contains a small selection of RAVO's Genuine replacement parts from which you can benefit. Especially for these type of parts it is essential that they have the same fit as an OEM version and come with the same durability standards as set by RAVO.

The availability of tires may vary by country. Please contact your local RAVO dealer for further information.





Wiperblade Part number: RAV5032700

Maintain a high visibility on the sweeping job.



Front window Part number: RAV5032912

Alternator Part number: RAV8004892320

TSV /

OEM alternator with the right quality & right specification.

Starter engine <u>Part nu</u>mber: RAV85801577136

OEM starter engine with the right quality & right specification.

IVECO Nox sensor Part number: RAV8041271167



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Brake Pads Part number: RAV5114152

RAVO OEM brake pads secure the RAVO sweeper in keeping safety first.

Waterfilter element underneath cabin Part number: RAV4180383

Suction filter 1 inch (3 in 1 tank) Part number: RAV5060040

Suction filter 2 inch Part number: RAV5060044







Rim for Bridgestone tire 205/65R17,5 Part number: RAV5014064



Bridgestone tire rear 540 (version for double air) Part number: RAV5014072



Complete wheel inclusive Bridgestone tire 205/65 17,5 Part number: RAV5014073



Rim for Bridgestone tire 215/75R17,5 Part number: RAV5014082



Bridgestone tire 215/75R17,5 Part number: RAV5014048



Complete wheel inclusive Bridgestone tire 215/75R17,5 Part number: RAV5014083

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ACCESSORIES: CUSTOMISE YOUR RAVO THE RIGHT WAY

RAVO manufacturing can equip your sweeper already with a lot of options. However, we have selected a small range of accessories with which you can adapt your RAVO even more to your needs. Improve visibility from the cabin by installing RAVO camera systems. RAVO will continue extending its accessory line in the future.





CAMERA, LENS 120 degr. Part number: RAV5196300



Dead Angle Camera Part number: RAV5196305

Colour monitor 7,0" Part number: RAV5196320



Rear bumper (stainless steel) Part number: RAV552049190

Stainless steel front wheel ring Part number: RAV5014003

Stainless steel front wheel ring to accessorize your RAVO 5 Series or RAVO 5 iSeries.

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