



FSR7



A new level of performance

OVERVIEW

overview

FSR7



A NEW
GENERATION
MACHINE
COMMITTED TO

ZERO  EMISSIONS

Why choose an electric machine?

Unlike many models in its category, the FSR7 isn't powered by an endothermic engine, but by batteries.

This is a much more efficient solution, due to the fact that there is no energy loss.

Combustion engines, which generate heat through the combustion of fuel, inevitably lose much of the energy produced.

The energy which remains - the kinetic energy, which makes the machine run and the engine components move - is much less.

In an electrical motor, meanwhile, which does not need to warm up to reach maximum revs, the energy generated can all be used immediately, without any dispersion.

The use of an electrical power supply offers unique benefits such as:

- no fuel costs
- zero exhaust emissions
- silent operation
- vibrations reduced to a minimum
- greater safety for the operator
- the versatility of being able to use the machine indoors

FSR7 is also available with lithium batteries, which ensure excellent power and long operating autonomy.

REFERENCE INDUSTRIES

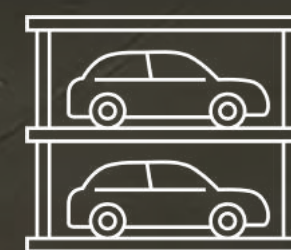
FSR7



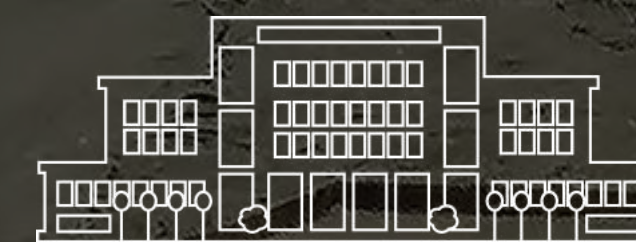
TRANSPORTATION



CLEANING AND
MULTI-SERVICE CONTRACTORS



PARKING LOTS



TRADE
FAIRS



HEALTH

REFERENCE INDUSTRIES

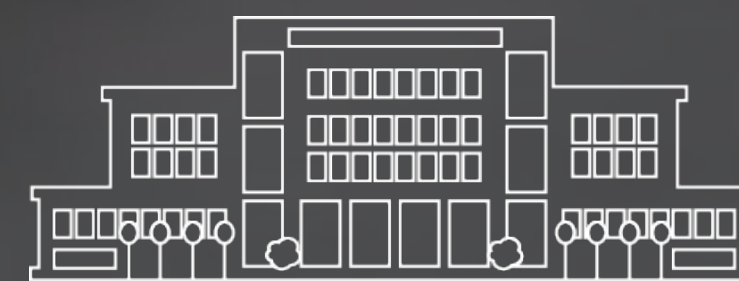
FSR7



INDUSTRY



LOGISTICS



LARGE-SCALE
RETAILING



SHOPPING
CENTRES

DURABILITY

DURABILITY

FSR7

Designed to protect your investment

A painstaking development and design process gave shape to a machine body that encompasses and protects all the mechanical parts of the machine, covering and shielding them against damage from accidental impact

The frame and structure are made of steel with anti-rust protection

The entire outer structure and the debris hopper are made of high-density polyethylene - a solid, robust material with a long lifespan

Any minor knocks during use are absorbed completely by the integrated bumpers



SIMPLICITY

SIMPLICITY

Some small but ingenious expedients
can be of great help to the operator

FSR7



COMFORT

Space is optimised to make the driving position comfortable even when working for several hours

The footrest zone is designed to offer impressive space for the feet despite the compact dimensions of the machine

The lowered footboard facilitates access from both sides, allowing the operator to climb on and sit down without any effort



DRIVER SEAT WITH ARMREST AND SAFETY BELT

For a comfortable, safe driving position



YELLOW COLOUR CODE



Parts which must be cleaned regularly at the end of every shift are colour-coded in yellow for easy identification, saving time and making sure your sweeping machine remains in perfect condition at all times



MAINTENANCE DUE WARNING

When the deadline for the periodic inspection established in the maintenance plan is approaching, a warning appears on the display, giving you plenty of time to arrange your appointment.

SIDE ACCESSORY HOLDER

Useful for attaching a mop or other accessories needed to complete the work



FSR7 SIMPLICITY



SIDE PADDLES



The paddles integrated into the steering wheel help the operator keep his/her attention and eyes on the movement direction. By lightly pressing the left-hand paddle, the cleaning power is raised to the maximum level for 60 seconds. The right-hand paddle activates reverse movements



The Eco Mode device reduces the noise level, to clean without disturbing



NO TRAINING, THANKS TO INTUITIVE DRIVING

The displays of the Pro and Plus versions enable easy, intuitive driving. The Eco Mode button ensures immediate start-up: the operator can begin working straight away, without any need for training, because the maintenance cleaning configuration is already set

SIMPLICITY

FSR7



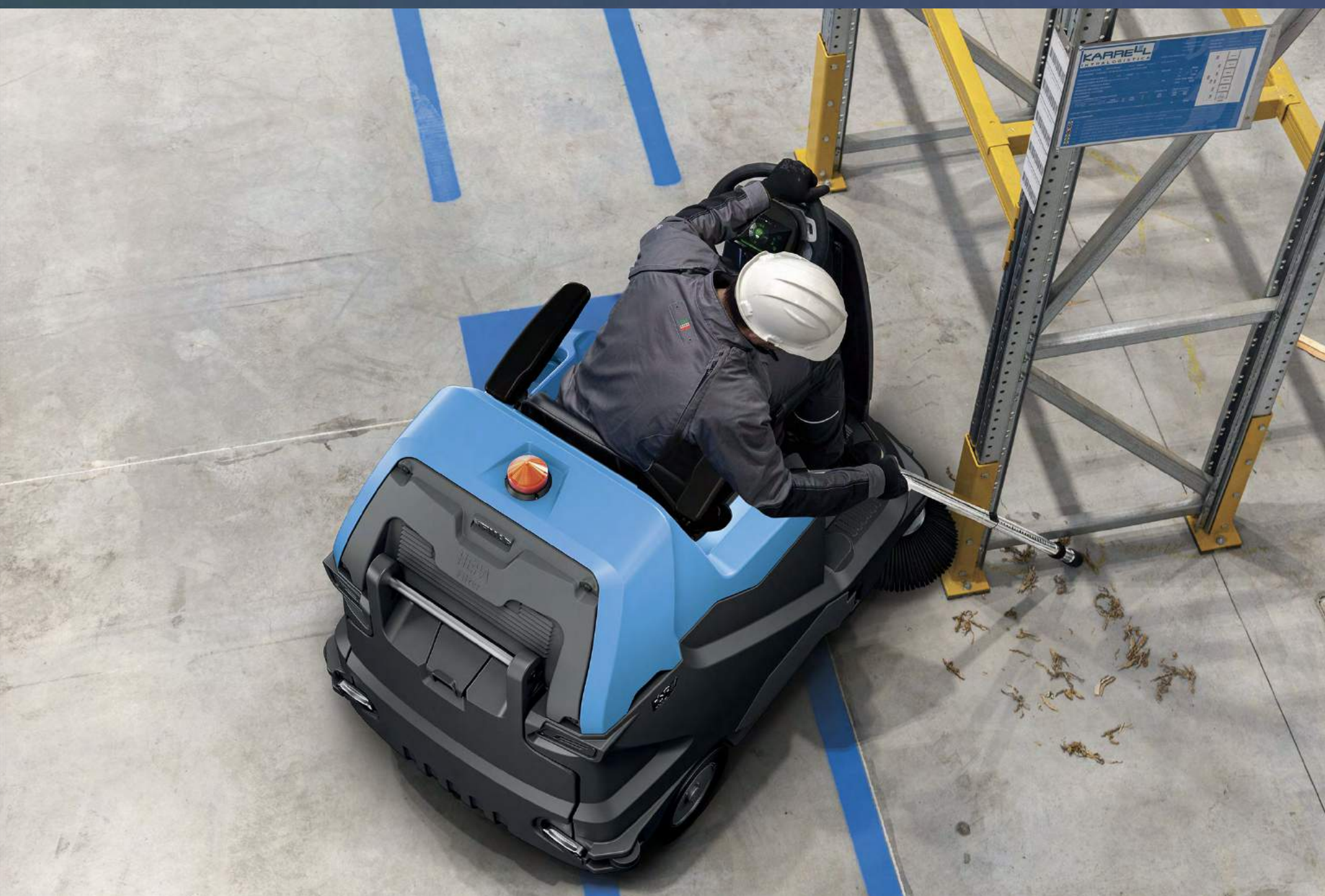
BAG HOLDER AND DETERGENT HOLDER

For other small items that
might come in handy when
working



SERVICE LIGHTS

The exclusive lights pack offers
increased visibility of the parts which
could require operator inspection,
illuminating the relative zones with
LED lights



ON-BOARD VACUUM CLEANER

With FSR7 you can have a powerful
built in vacuum cleaner too. The
wand enables to remove the dirt that
has built up in corners without even
having to get off the machine

SIMPLICITY

FSR7

**QUICK AND EASY
MAINTENANCE,
NO TOOLS NEEDED**

When studying the design, one priority was how to guarantee easy, quick access to all those machine parts that require regular inspections and daily maintenance



Helping the operator by simplifying his/her work also means reducing the costs and times for every work shift and ensuring the machine is always kept in good condition, thereby extending its working life and avoiding costly unforeseen interventions



To make it easier to empty the debris hopper, two internal containers can be requested as optionals. In this way, the load is divided between the two containers so the task requires less effort

SIMPLICITY

FSR7

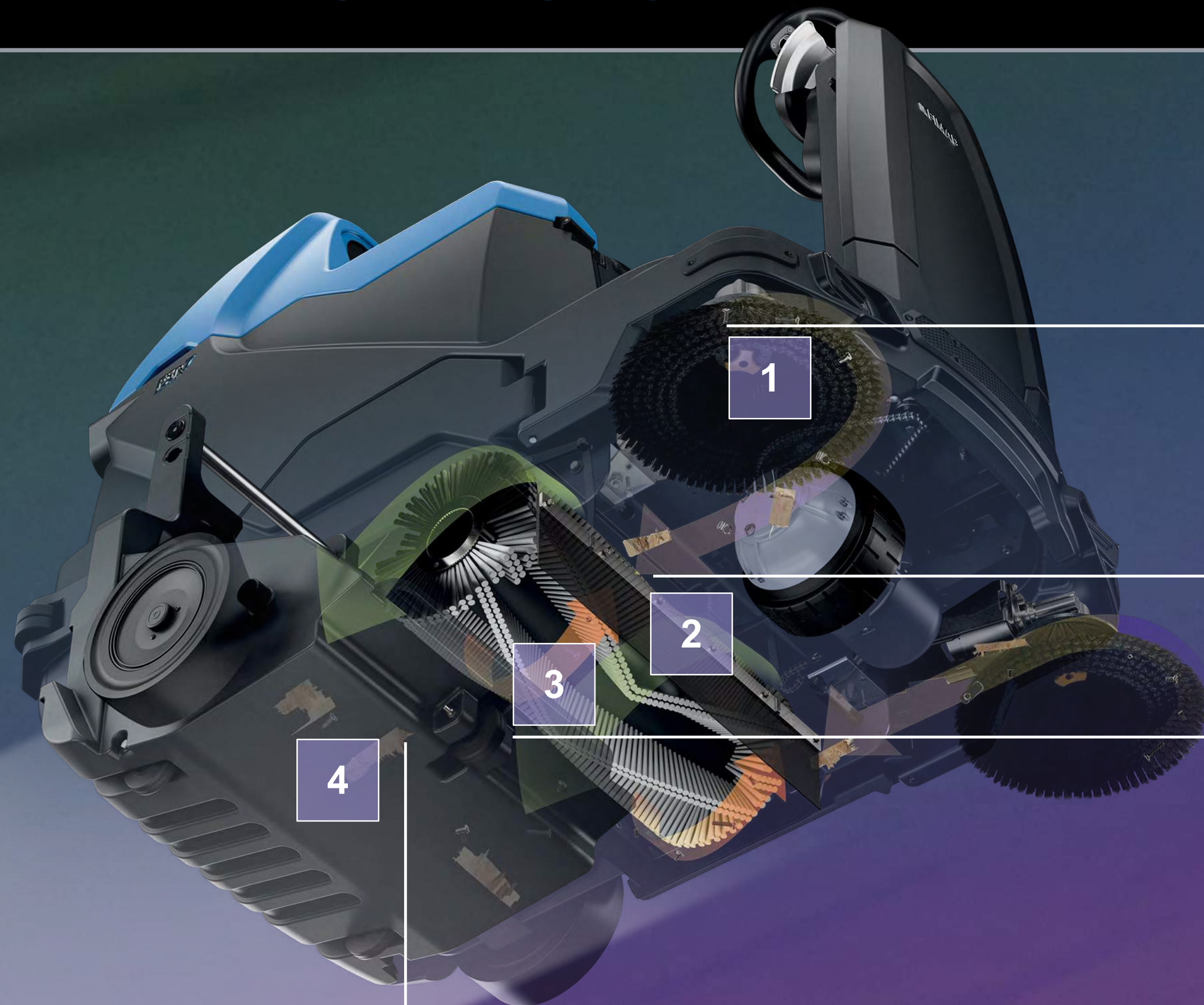


PRODUCTIVITY

PRODUCTIVITY

Effective on the first pass,
to get more out of every cleaning intervention

FSR7



SIDE BRUSHES

to channel dirt into the central area

FLAP LIFTING DEVICE

To make it easier to move and pick up bulky residue



FORCE
Technology

SWEEPING UNIT WITH FORCE TECHNOLOGY

Force technology, installed as standard, keeps the central brush in contact with the floor at all times. It intervenes automatically on the basis of the unevenness of the surface, ensuring that the pressure always remains the same, regardless of slopes or protrusions, to produce a uniform cleaning result on any floor

CONTAINER VOLUME

up to **105** litres

PRODUCTIVITY

Effective on the first pass,
to get more out of every cleaning intervention

FSR7



FORCE
Technology



ON-BOARD VACUUM CLEANER WITH 3-STAGE VACUUM MOTOR

The vacuum cleaner works independently, with a dedicated 3-stage vacuum motor and a high-efficiency HEPA filter. The wand picks up the dirt in corners, without the operator needing to get off the machine.

SPEED



in transfer

up to **8** km/h



working

up to **7** km/h

WORKING AUTONOMY



with Li-ion batteries



up to **7** hours*

* In Eco Mode



PRODUCTIVITY

Equipped to maximise
productivity

FSR7



REAR VIEW CAMERA

Lets the operator monitor
cleaning results in real time
from the display, without
taking his or her eyes off the
direction of travel



POWER MODE

When the dirt is particularly concentrated in a small area, it may be useful to briefly boost the cleaning power. By activating Power Mode, the pressure on the central brush is increased for 60 seconds, along with the vacuum, to thoroughly remove all the dirt in a specific point in one single movement



PRODUCTIVITY

Equipped to maximise
productivity

FSR7



To ensure the desired cleaning results in all conditions and prevent the risk of tampering, the site supervisor can save a number of separate configurations with specific cleaning parameters for different work environments. The operator simply has to select the zone to be cleaned, and the machine is configured automatically with all the right settings

PRODUCTIVITY

Equipped to maximise
productivity

FSR7



RAMP UP

Astonishing performance in any situation
Thanks to electronic traction control, the FSR7 can adjust the power level to handle ramps easily and smoothly without stopping or slowing down, on gradients of up to 20%*



VACUUM
ON/OFF

The possibility to exclude the vacuum function enables sweeping even on damp floors

* Trailer ramp at net weight

PRODUCTIVITY

Equipped to maximise
productivity

FSR7



Working width
up to **1300** mm
with 2 side brushes

The considerable working
width guaranteed by the side
brushes boosts productivity
and so lowers the work costs



PRODUCTIVITY

FSR7



Touchscreen Display



iD—intelligent Drive



TOUCH
SCREEN
DISPLAY



LOG-IN
WITH
PASSWORD



ZONE
PROGRAMS



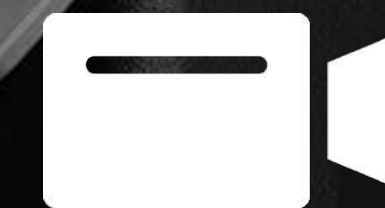
CRUISE
CONTROL



SUSTAINABLE
CLEANING



SWEEPING
POWER



REAR VIEW
CAMERA



VIDEO
TUTORIALS

PRODUCTIVITY



FSR7

With the iD - intelligent Drive system, the operator interacts with the machine in a completely new way.

The management through the display enables a more precise use of the functions,
as the graphic provides the information in a clear and simple manner.
This also improves the professionalism and quality of the cleaning operation.



LOG-IN WITH PASSWORD
To protect your investment



ZONE PROGRAMS
For all the performance you'll ever need



ECO MODE
To protect the environment

PRODUCTIVITY



FSR7

With the iD - intelligent Drive system, the operator interacts with the machine in a completely new way.

The management through the display enables a more precise use of the functions,
as the graphic provides the information in a clear and simple manner.
This also improves the professionalism and quality of the cleaning operation.



POWER MODE

For maximum power when you need it



REAR VIEW CAMERA

To keep everything under control



VIDEO TUTORIALS

For a more efficient, fast and easy
operator training

SUSTAINABILITY



SUSTAINABILITY

FSR7

Fimap towards carbon neutrality

FSR7 is designed according to the principles of the circular economy so it can deliver maximum performance as long as possible and so at the end of its life cycle it can continue generating benefits for the environment.

For this reason, we give value to each phase of its life cycle, making it sustainable and efficient, from when it was produced, while it is being used, up to its disposal.

The life cycle of each machine therefore becomes a virtuous cycle, which we can quantify, using the certified calculation method CFP – CARBON FOOTPRINT SYSTEMATIC APPROACH which communicates the emissions of CO₂e produced by the individual model per working hour.

It is a starting point for a path of continuous improvement, which can even arrive to neutralizing its impact on the environment.



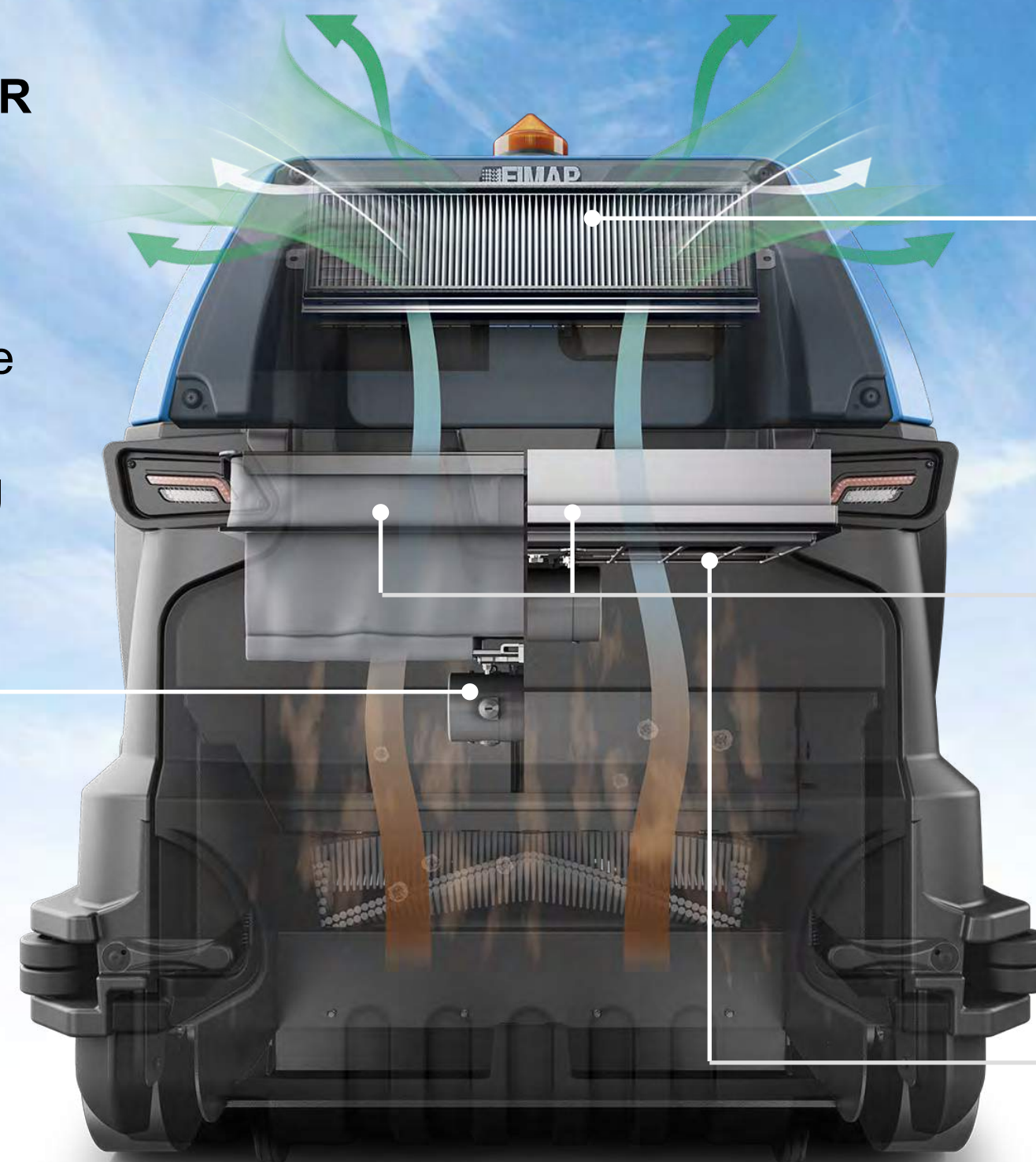
SUSTAINABILITY

FSR7

With 3 filtering stages, even fine dust is effectively removed from the air returned into the environment



AUTOMATIC FILTER SHAKER
Ensures filtering performance is maintained over time, shaking the filter regularly to prevent clogging and extend its lifespan



HEPA filter

High filtering capacity with the finest dust up to 0,3 µm



Polyester or paper panel filter



Pre-filter

When cleaning carpet floors, the first filtering level blocks and captures fluff to protect the next filters

Pocket filter in fabric or Tetratex®



SAFE AIR TECHNOLOGY:

multi-stage filtering system
The air is cleaned by passing through a 3-level filtering system. Even the smallest particles are captured, thereby protecting the health of both the operator and the other people in the area

SUSTAINABILITY

FSR7

FRONT ANTI-DUST SKIRT

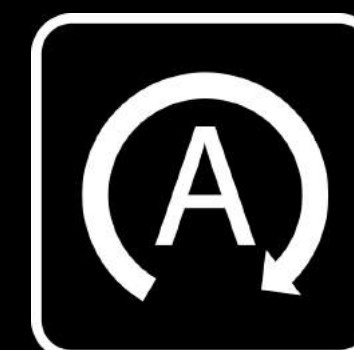
The cover on the front brushes helps to hold down the dust, so it can be easily vacuumed straight away before it is dispersed into the air. Guarantees better cleaning results and protects the operator's health, especially in very dusty places



FES - FIMAP ENERGY SAVER

Careful design has made for the most efficient use of the energy that powers the FSR7 functions. The consequential optimisation of consumption benefits both working autonomy and the battery lifespan

It reduces energy consumption by  up to **35 %**



START&STOP

In the event of temporary stops, the brush motors, vacuum and traction switch off automatically, reducing consumption, costs and emissions. All the functions are reactivated automatically as soon as the operator touches the accelerator again.

SUSTAINABILITY

FSR7



PANEL FILTERS



FABRIC POCKET FILTER



POCKET FILTER IN Tetratex®

LIGHT

MEDIUM

HEAVY

TYPE
OF DIRT

SUSTAINABILITY

FSR7

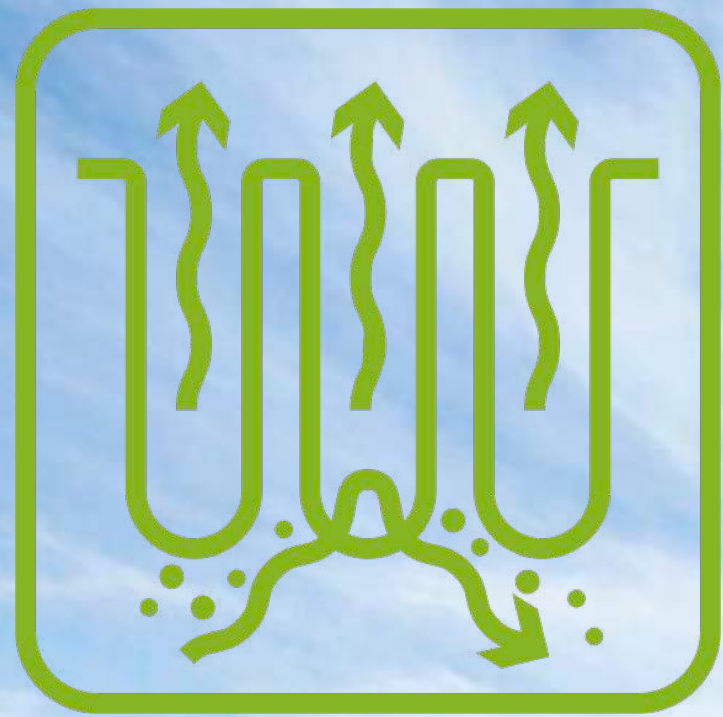
FSR7 is available with a **PANEL FILTER** for standard applications, or a **FABRIC POCKET FILTER** can be requested for excellent filtering results even in places with high levels of fine dust.

POCKET FILTER IN Tetratex®

Even higher filtering performance can be obtained with the **Tetratex® POCKET FILTER**.

This is made with a microporous expanded PTFE membrane, a highly efficient material that is ideal for particularly difficult applications, such as in areas where minerals, chemical products, pharmaceutical substances and fertilisers are processed, as well as in the food industry.

POCKET FILTER IN Tetratex®



The Tetratex® membrane has an excellent release capacity, thanks to its surface filtration technology: even the most adherent dust, once it reaches the surface, falls down and leaves the filter free, preventing any risk of clogging.

With the microporous structure of the Tetratex® membrane, emission levels are close to zero. Particulate matter remains trapped on the filtering surface, thus reducing environmental emissions.

It provides greater filtering autonomy, which means that more square meters can be covered without needing to stop to clean the filter.

Cleaning the filter is easier, quicker and there is no need to wash it. This saves time for the cleaning task and makes the operation safer.

SAFETY

Active technologies to prevent accidents.

FSR7 adopts a series of safety systems that help keep everything under control,
so the operator can work with complete peace of mind.



**REAR VIEW
CAMERA**

Facilitates manoeuvres in reverse by detecting obstacles



**TOUCH SCREEN
DISPLAY**

Enhances visibility in dim light



**STEERING
WHEEL
CONTROLS**

The steering wheel controls offer the operator even greater control when cleaning, and also improve safety by eliminating distractions and letting the operator keep his or her eyes on the zone ahead of the machine



**DESCENT
CONTROL**

Maintains a constant speed when driving downhill, and prevents sudden increases in speed caused by gravity



STOP&GO

The traction control system, which brakes and holds the machine when the accelerator pedal is released, provides assistance for both uphill and downhill gradients



**ESC - ELECTRONIC
STABILITY CONTROL**

Automatically reduces speed when steering without the operator using the brake

SAFETY

Safety is paramount

FSR7

Active technologies to prevent accidents.

FSR7 adopts a series of safety systems that help keep everything under control,
so the operator can work with complete peace of mind.



Control device letting the operator set the required speed

CRUISE CONTROL



Highlights the presence of FSR7 to avoid accidents when visibility is obstructed by shelves or other equipment

BLUE SAFETY SPOTLIGHT



Ensure the best braking performance

MECHANICAL DRUM BRAKES



Front and rear LED headlights maximize work safety in all conditions

LED HEADLIGHTS



To protect operators working in warehouses and logistics centres

OVERHEAD GUARD



Protect the operator holding him/her in case of impact

SAFETY BELTS



Any questions?
FSR7 has all the answers:
the video tutorials help the operator in every phase of the job

VIDEO TUTORIALS

Passive systems to help the operator in the event of an emergency



EMERGENCY
STOP

By pressing a single button the machine stops immediately



SOS DEVICE

Reduces time to service in case of emergency. The red button sends an SMS alert to receive prompt help, reducing downtime



CONNECTIVITY

CONNECTIVITY

FSR7

Connect to your fleet and increase productivity with the My.Machine app



FIMAP FLEET MANAGEMENT

Track the performance of your fleet easily from your smartphone, with the My.Machine app.

Enter the profile of each machine to see where it is, whether the planned cleaning schedule is being followed, and whether anything unexpected has occurred.

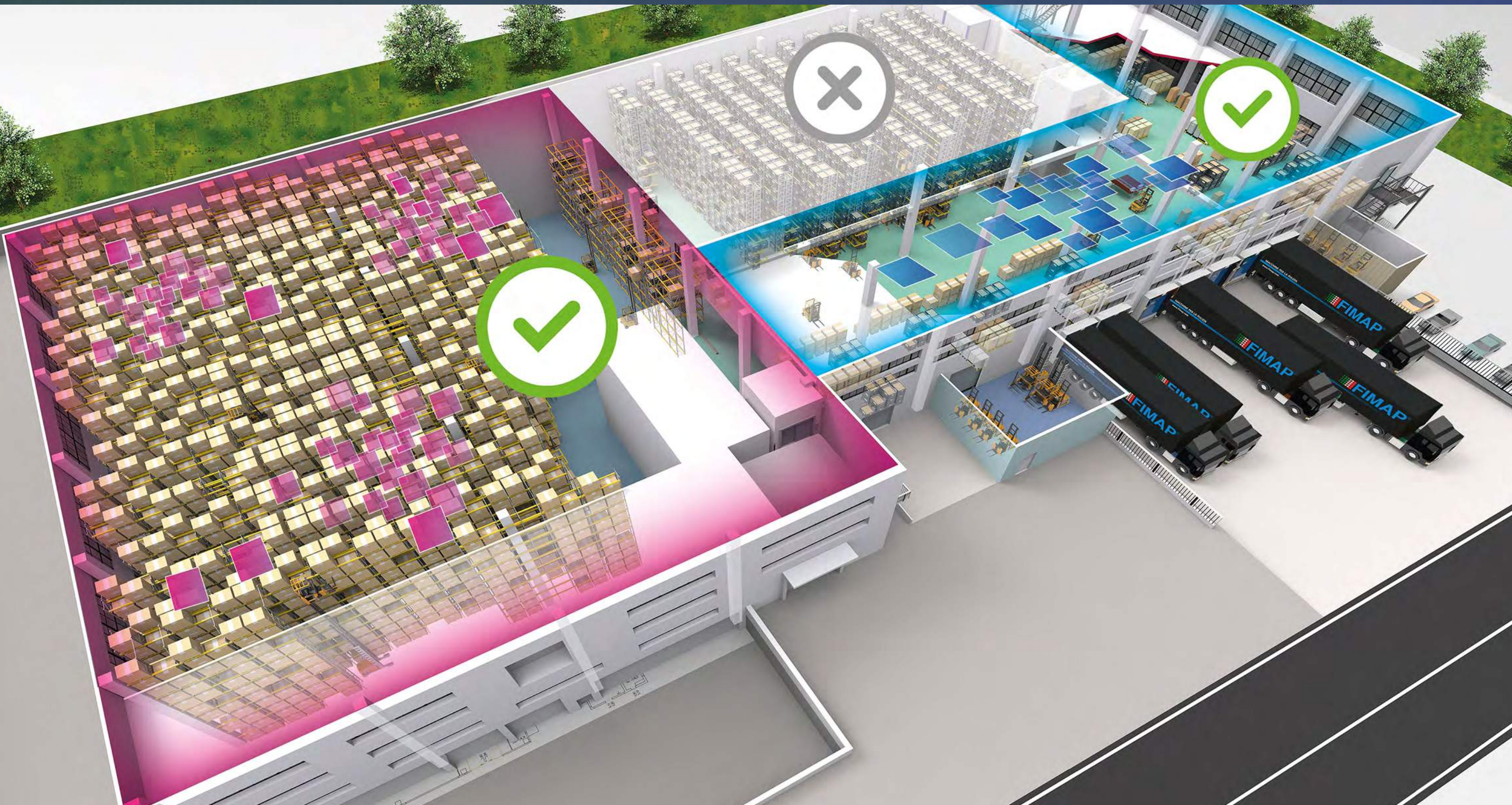
You can check the list of maintenance tasks carried out, the recharges made and any issues that have arisen, to always be in full control of the situation and keep productivity high.



CONNECTIVITY

FSR7

Manage your fleet remotely with the FFM – Fimap Fleet Management system,
use the My.Machine app to access data at any time and don't miss a single detail
of the status of your machines



INDOOR TRACKING

Tracking of cleaning activities
inside buildings, to see which
areas have already been cleaned and
which are still to be completed

CONNECTIVITY

FSR7



MISSION CONTROL PART PROGRAM

The supervisor can set a weekly cleaning schedule and send it remotely to the machine. This enables the operator to follow the set schedule, ensuring the desired cleaning standards are maintained, and keeping costs low.



GEOLOCATION

It shows on a map the machine.



USE INFORMATION

It's possible to know in what working mode the machine is operating and for how long. Moreover, it provides information about the duration of each intervention and the sq.m cleaned.



BATTERY RECHARGE

It sums up all the complete and opportune recharges performed, the residual charge and the charge settings. This is an essential set of information to extend the battery lifespan and reduce the related costs.



HEALTH STATUS

It is possible to monitor the health condition of both machines and batteries at any time, to have a clear view of the fleet availability and optimize its coordination.



ALARMS

The anomalies occurred are summarized in a list which includes a description of the type of issue, and the date and time of the event. It helps you to have an overview of the improper uses that need to be corrected.



SERVICES

An overview of the list of the maintenance services performed allows to identify discrepancies with the health condition of the machine in case an anomaly is detected, and to monitor the inspections of the whole fleet.



ENVIRONMENTAL IMPACT

It is possible to see the amount of CO₂ produced by the machine since the beginning of its life cycle.

CUSTOMIZATION

CUSTOMIZATION

FSR7

3 VERSIONS AVAILABLE



Membrane
control panel



Touch-screen
display

Basic



PRO



PLUS



CUSTOMIZATION

FSR7

Customise your machine with the most suitable accessories for your sector

OPTIONALS



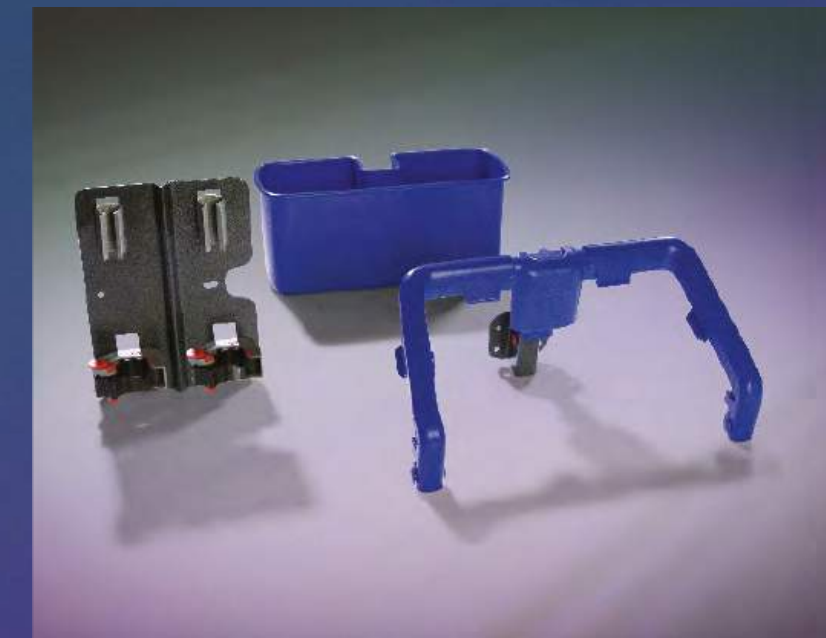
Left side sweeping brush



Front anti-dust skirt



Dual inner container



Set of cleaning accessories



On-board vacuum cleaner



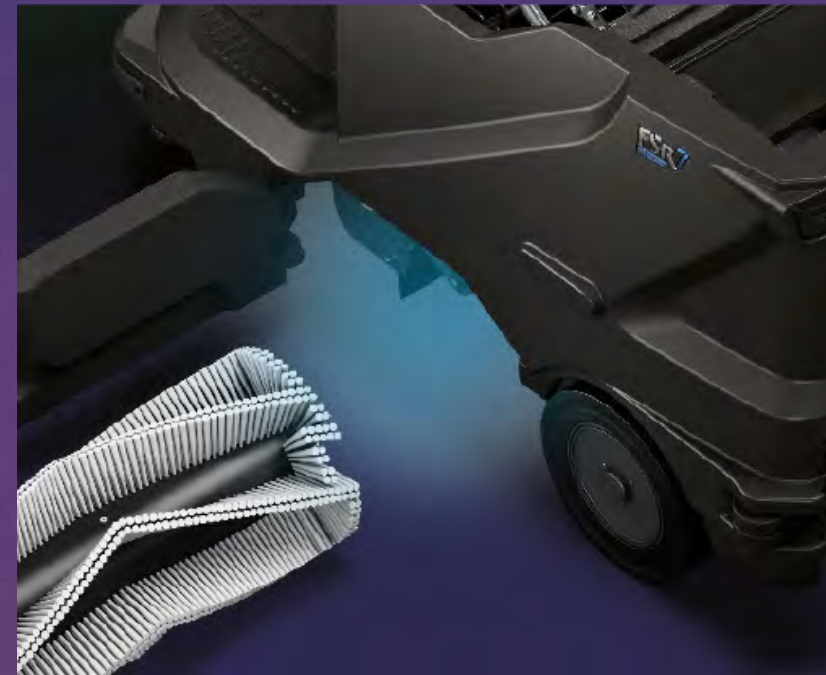
On-board battery charger



Seat with armrests and seat belt



Super elastic rear wheels



LED service lights



ED headlights and tail-lights

CUSTOMIZATION

FSR7

Customise your machine with the most suitable accessories for your sector

OPTIONALS



Blinking light



FFM-FIMAP FLEET
MANAGEMENT



Bull bar



Overhead guard



Blue Safety Spotlight



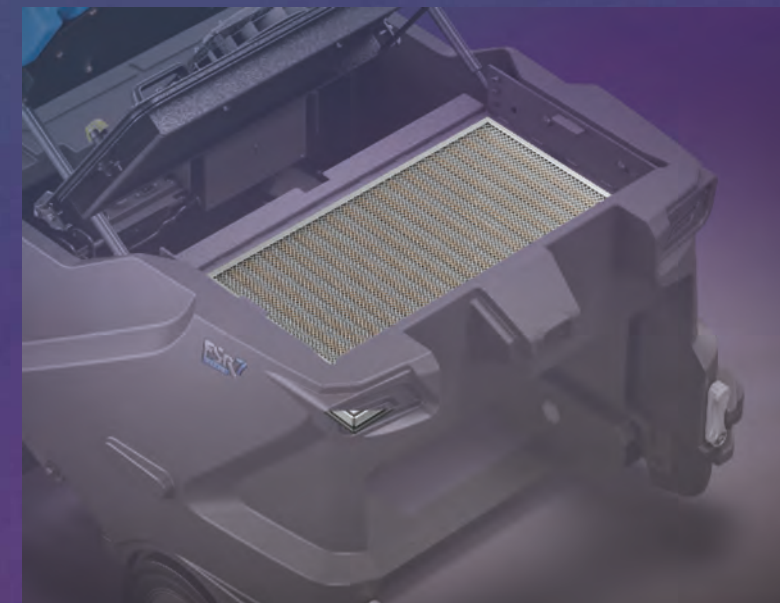
Machine body made of recycled
plastic



The fabric pocket filter
increases filtering
performance in dusty
environments



With the Tetratex® pocket filter,
high filtering efficiency is
obtained in even the
most demanding contexts of
specific sectors



Polyester panel filter



Carpet floor pre-filter for
capturing fluff



HEPA output air filter

CUSTOMIZATION

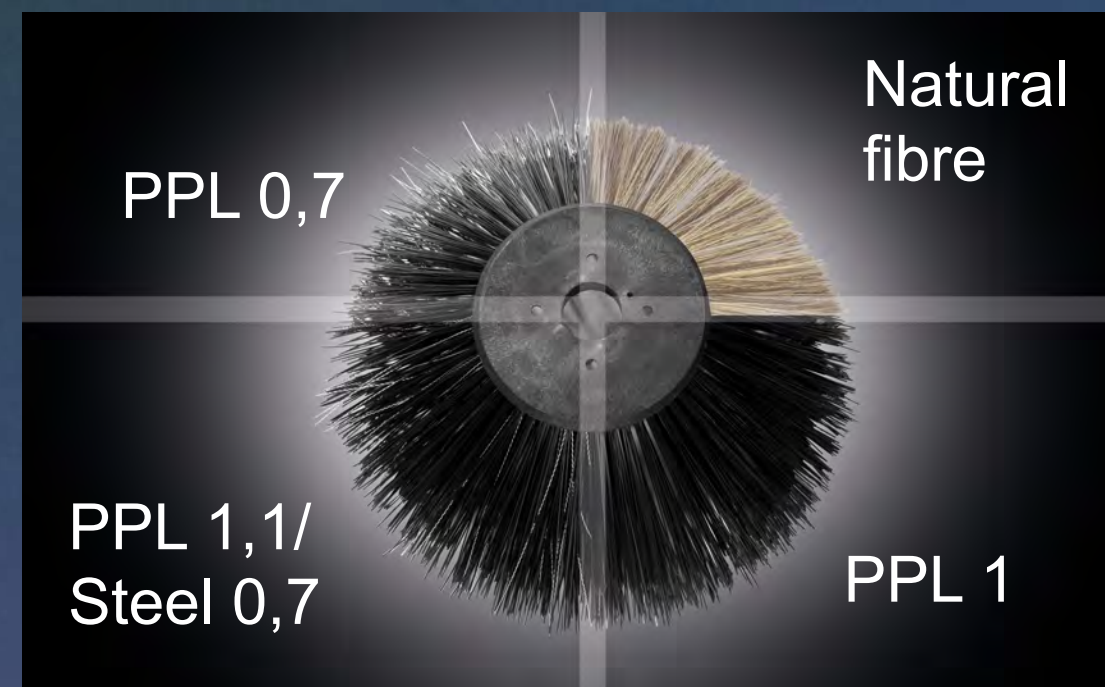
FSR7

ACCESSORIES



CENTRAL CYLINDRICAL BRUSHES

Various types of brush are available, to deal with any type of dirt on any floor.
The natural fibre brush is recommended for sweeping up fine dust on smooth floors, both indoors and outdoors



SIDE BRUSHES

OPTIONAL AND STANDARD EQUIPMENT

USER EXPERIENCE	FSR7	FSR7 Pro	FSR7 Plus
iD-Intelligent Drive:	-	-	•
- 5 inch high resolution colour touch screen	-	-	•
- Log-in with password	-	-	•
- Zone programs	-	•	•
- Cruise control	-	•	•
- Eco Mode	-	•	•
- Power Mode	-	-	•
- Rear view camera	-	-	•
- Operator training video tutorials	-	-	•
- Maintenance due warning	-	•	•
Membrane control panel	-	•	-
COMFORT			
Hour meter	•	•	•
Vacuum ON/OFF (to protect the filter when cleaning damp surfaces)	•	•	•
Basic seat	•	•	-
Driver seat with armrest and safety belt	○	○	•
On-board battery charger	○	○	○
Dual inner container	○	○	○
Set of cleaning accessories (side plate with clips, tub, bag-holder)	○	○	○
Automatic brush lifting system	-	•	•
Manual brush lifting system	•	-	-
PRODUCTIVITY			
Triple pressure selector	-	-	•
Extra pressure	-	•	•
Vacuum speed selector	-	-	•
On-board vacuum cleaner with 3-stage vacuum motor and HEPA bag filter	○	○	○
Automatic filter shaker with timer	-	•	•
Manual filter shaker	•	•	•
Front flap lifting device to facilitate the collection of bulky dirt	•	•	•
FFM (Fimap Fleet Management)	○	○	○
Front anti-dust skirt	○	○	○
Right side brush	•	•	•
Left side brush	○	○	○
Force technology (guarantees uniform cleaning on uneven surfaces too)	•	•	•

• STANDARD	○ UPON REQUEST	- NOT AVAILABLE
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SAFETY	FSR7	FSR7 Pro	FSR7 Plus
Blinking light	○	○	•
Driving LED lights (front-rear)	○	○	•
LED service lights	○	○	•
Ramp up	•	•	•
Stop&Go	•	•	•
Descent control	•	•	•
ESC (Electronic Stability Control)	•	•	•
Emergency Stop	•	•	•
Super elastic rear wheels	○	○	○
Overhead guard	○	○	○
Blue safety spotlight	○	○	○
Bull bar	○	○	○
Mechanical drum brakes	•	•	•
Electrobrake	•	•	•
Side brushes that retract in the event of impact	•	•	•
ENVIRONMENT			
Machine body made of recycled plastic	○	○	○
Paper panel filter	•	○	○
Polyester panel filter	○	•	•
Fabric pocket filter	○	○	○
Tetratex® pocket filter	○	○	○
Carpet floor pre-filter	○	○	○
HEPA output air filter	○	○	○
FES (Fimap Energy Saver)	•	•	•
Start&Stop	•	•	•

DIMENSIONS AND TECHNICAL DATA

TECHNICAL DATA		FSR7	FSR7 Pro	FSR7 Plus
Productivity theoretical	up to sqm/h	9100		
Estimated coverage	up to sqm/h			
SWEEPING UNIT				
Working width with central cylindrical brush	mm	700		
Working width with side brushes	(n.) mm	(1) 1000 - (2) 1300		
Brush motors (central/side)	(n.) V/W	(1) 24/460 - (1/2) 24/115		
Brush rpm (central / side)	rpm	640/70		
DIRT COLLECTION SYSTEM				
Maximum debris hopper volume	l	105		
FILTERING SYSTEM				
Paper panel filter filtration degree	µm	14		
Polyester panel filter filtration degree	µm	15		
Fabric pocket filter filtration degree	µm			
Tetratex® pocket filter filtration degree	µm	5		
HEPA output air filter filtration degree	µm	0,3 99,9% efficiency		
Vacuum cleaner HEPA filter filtration degree	µm			
BATTERIES				
Supply/traction	V	24/aut.		
Batteries	(no) V/Ah	(4) 6/270 WET - 3(2) 24/200 Li-ion		
Battery run time*	up to h	5,30 (WET) - 7 (Li-ion)*		
PROPELLING SYSTEM				
Forward working speed	km/h	7		
Transport speed	km/h	8		
Gradeability (Working / Transport at gross weight / Trailer ramp at net weight)	%	12,5 / 14 / 20		
Traction motor	(n.) V/W	(1) 24/750		
SPECIFICATIONS				
Machine dimensions (L x h x a)	mm	1610		
		1290		
		1020		
Machine weight empty without batteries	mm	285		
Machine weight empty with batteries	kg	420		
GVW (Gross Vehicle Weight)	kg	685		
Sound pressure level (ISO 11201) – LpA – Eco Mode	kg	<70		
Minimum aisle turn	dB (A)	2010		

*Run times are based on continuous sweeping run times
The weights are calculated on the basis of a standard reference model

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