

MM9



Welcome to the dimension of cleaning 4.0!

 **FIMAP**<sup>®</sup>

# MMg





## Quality you can see for yourself: a design that's a pleasure to look at, which accentuates every single detail

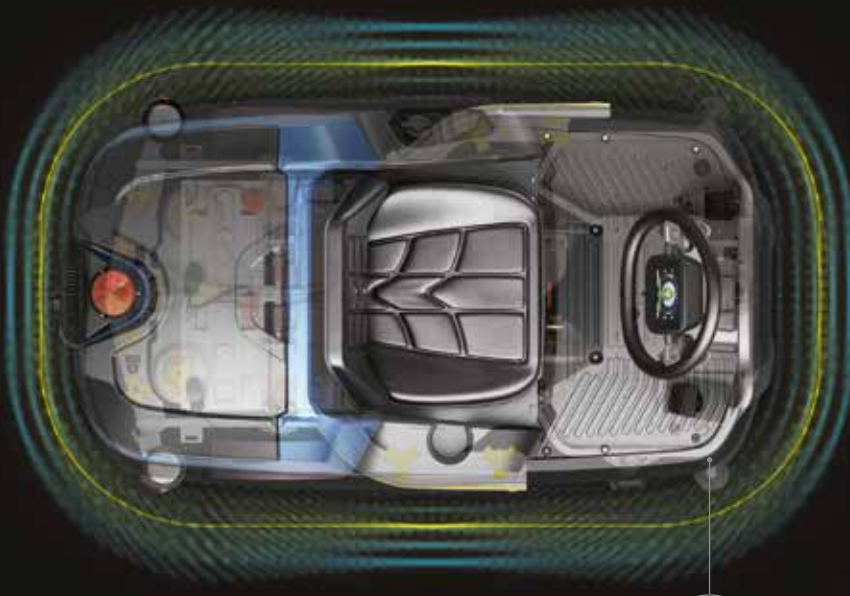
The precisely defined forms of the front give the machine a decisive character exuding an impression of unrivalled robustness.

Taking pride of place at the lower part of the front is an elegant, elongated front fascia between 2 LED headlights creating a boldly expressive look.

The clean, flowing lines continue to the rear of the machine, lending a sense of dynamism to the whole and underscoring the exclusiveness and attention to detail of the design.

The design is complemented to perfection by materials selected and used according to the most exacting standards, making a bold visual statement that expresses the essence and extraordinary quality of this machine.





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

This maximizes the durability of the components, keeping the value of the machine itself high over time



The entire outer structure is made from robust and sturdy high density polyethylene

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



The rounded design of the body protects the machine and keeps the value of your investment over time

The low centre of gravity ensures outstanding stability when working and manoeuvring, even in bends or when climbing ramps



The compact height facilitates access to the tanks, making maintenance easier and more practical

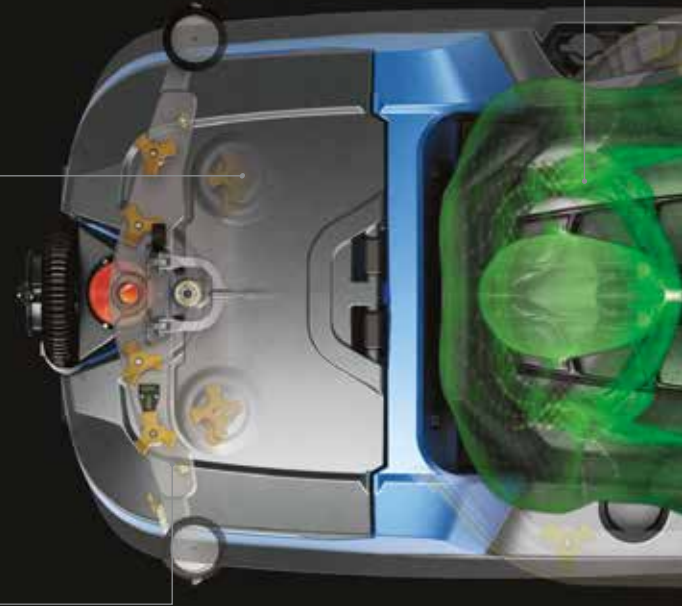


# MMg

## COMFORT



Padded in soft material, the seat boasts ergonomic forms offering effective back support and also features forwards and backwards adjustment. This equates to a stress-free experience for the operator, who can work for hours on end without any effort



Boasting FNC and Eco Mode technology, the MMg can also work extremely quietly when needed, to safeguard the health of the operator and of any people nearby

## YELLOW COLOUR-CODED PARTS

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 that your scrubbing machine is kept in perfect condition at all times



## SERVICE LIGHTS



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

# Ergonomic forms optimized for total freedom of movement and maximized operator comfort



The lateral paddles offer the operator even greater control over the machine, for total peace of mind and a comfortable, safe driving experience

The design of the front maximizes the room for the legs and brings the steering wheel closer to the operator, making the machine even more comfortable to use

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 and allows the operator sit easily without any efforts

## PERFORMANCE AND PRODUCTIVITY

### POWER MODE

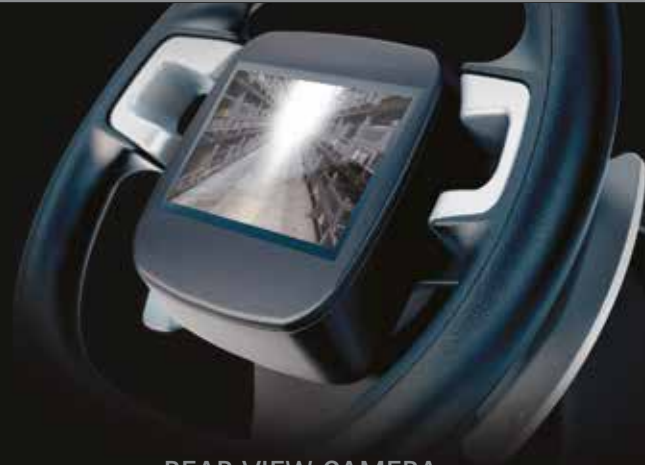


When more scrubbing power is needed, activating Power Mode increases the delivery rate of detergent solution and boosts brush pressure and vacuum power for the time necessary to tackle heavy duty cleaning

### ZONE PROGRAMS



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



### 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



### A LATERAL BRUSH FOR EVEN MORE GREATER PRODUCTIVITY

The third brush moves laterally to facilitate cleaning along walls or shelves, increasing productivity by up to 15%





# The strengths of the MMg behind its extraordinary performance

**3-stage vacuum motor**  
Effective vacuum system which leaves the floor dry with no risk of slipping



**FLR-FIMAP LONG RANGE**  
Increases productivity by up to 70%

**Great autonomy**  
It works more than 4 hours non-stop

**Light steering for even more operator comfort**

The dual front wheel reduces the specific pressure exerted on the floor, making the steering action lighter. This solution also increases manoeuvrability and prevents marking, even on the most delicate floors

**Up to 100 Kg of pressure**  
With a brush pressure settable to up to 100 Kg, the machine can tackle even the most stubborn dirt

**Save time by working faster**  
Up to 6 Km/h in work mode and 8 Km/h in transfer mode

**Outstanding performance in any situation**

MMg is capable of climbing ramps up to 18%\*. A special electronic control modulates power precisely, allowing the machine to climb ramps easily and smoothly, with no interruption or loss of power delivery



RAMP UP

\* Trailer ramp empty

## Sweeps, scrubs, dries and sanitizes in one step

In order to obtain a healthy environment, cleaning must be combined with a sanitizing process.

Once the dirt, both light as dust and solid residues, and adherent, has been removed, the surfaces must undergo a treatment that reduces the presence of pathogens with the use of specific solutions.

Today, most sanitization activities are carried out manually, even in large environments, at very high costs.

Mechanizing this operation is crucial to perform it with method and regularity.

Combing sanitization with cleaning and carrying out the two actions at the same time provides extraordinary advantages in terms of time and cost.

Cleaning and sanitizing at the same time is now possible with a Disinfector scrubbing machine.

MMg scrubber dryer in Disinfector version enables the cleaning of floors and, at the same time, the sanitization of both floors and the surrounding vertical surfaces, in a single step.



This means a considerable reduction in costs, time and labour, which becomes even more significant in large spaces, where the cylindrical version of MMg Disinfector can be used, so as to achieve even 4 actions in one step:

1. SWEEPING
2. SCRUBBING
3. DRYING
4. SANITIZING

*For effective disinfection follow the instructions given by the manufacturer of the disinfectant liquid used*

# THE ELECTROSTATIC TECHNOLOGY

The spraying action uses the electrostatic technology. The electrostatic charge causes the particles of the liquid to repel each other and thus to maintain a constant distance between them, which results in an even distribution. In addition, the charged particles are attracted by the surfaces on which they are directed, which guarantees a 360-degree coverage on each side of an object, without leaving out gaps.

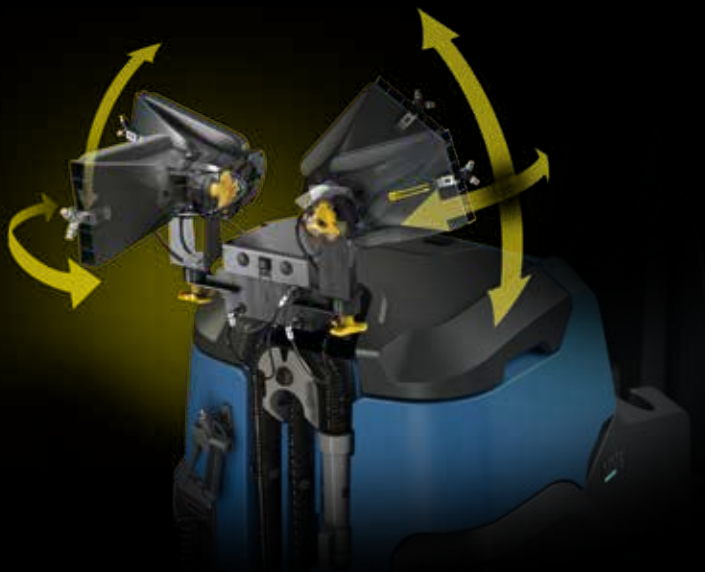


THE SOLUTION IS SPRAYED UP TO 3 METERS

While MMg carries out its usual cleaning activity, the sanitizing liquid is sprayed by groups of nozzles positioned above the tank, and then transported up to 3 metres away in distance and height from the force of two turbines, and by another group of nozzles positioned at the rear base of the machine, intended only for the floor.



# MMg



## DIRECTIONAL NOZZLES

The spray can be directed according to the needs of the site, by rotating the turbines 180° from top to bottom and 180° from right to left.

## SANITIZING SPRAYER

The sprayer allows to sanitize the machine at the end of the shift, taking the solution from the designated tank. During the maintenance phase the operator can spray the sanitizing solution inside the tanks, in the area where the squeegee and the brush are located, on the contact surfaces such as the steering wheel, dashboard and driver's seat.



### SEPARATE NOZZLE OPERATION: ON THE RIGHT OR LEFT SIDE

You can choose to activate the spray only on one side or the other, according to the requirements of the specific environment you are sanitizing.



### SEPARATE NOZZLE OPERATION: UPPER AND LOWER

The upper and lower nozzles are also independent, allowing you to adapt the activity according to the structure of the environment and avoid wasting solution.

TECHNICAL DATA		MMg Disinfector
Sanitizing solution tank	l	10
Lower nozzles	(no.)	(2)
Upper nozzles	(no.)	(4)
Lower nozzles flow rate	l/min	0,245
Upper nozzles flow rate	l/min	0,465
Total flow rate	l/min	0,711
Operating time with lower nozzles	min	40
Operating time with upper nozzles	min	21
Total operating time	min	14
Machine dimensions (l x h x w) (min-max)	mm	1690
		1485
		881
Drop size	µm	100

## SAFETY

### ACTIVE TECHNOLOGIES to prevent accidents



ANTI-COLLISION SYSTEM

The anti-collision system detects obstacles when reversing, helping the operator work in complete safety and protecting the machine



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



LED HEADLIGHTS

Front and rear LED headlights maximize work safety in all conditions

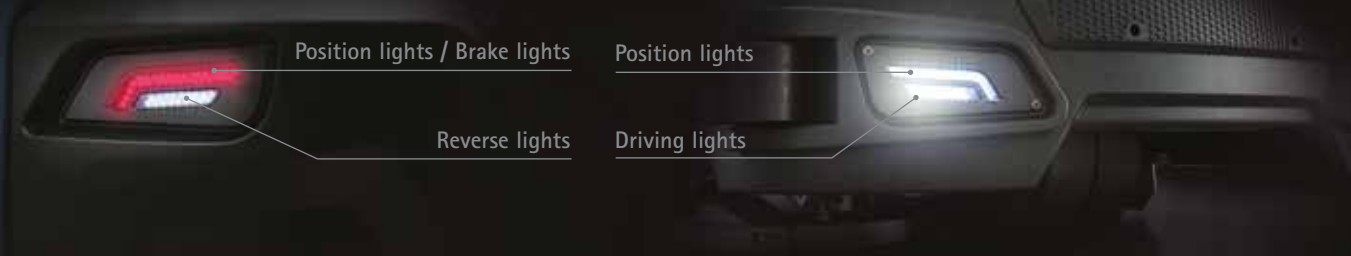


### Safety is paramount

The MMg is equipped with a host of safety systems and features to keep the operator in complete control at all times and work with total peace of mind

REAR HEADLIGHTS

FRONT HEADLIGHTS



Position lights / Brake lights

Position lights

Reverse lights

Driving lights

# On the road to accident-free cleaning



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



CRUISE CONTROL

Control device letting the operator set the required speed



VIDEO TUTORIALS

Any questions? MMg has all the answers, with tutorials to help the operator in every aspect of the job



ESC - ELECTRONIC STABILITY CONTROL

Automatically reduces speed when steering without the operator using the brake

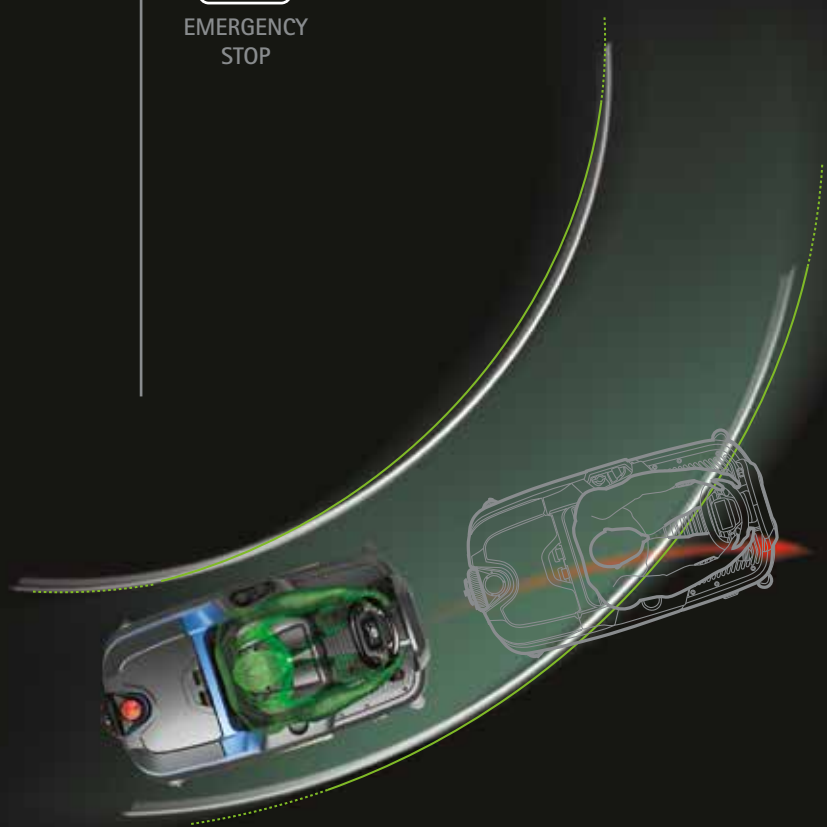
## PASSIVE SYSTEMS

to help the operator in case of emergency



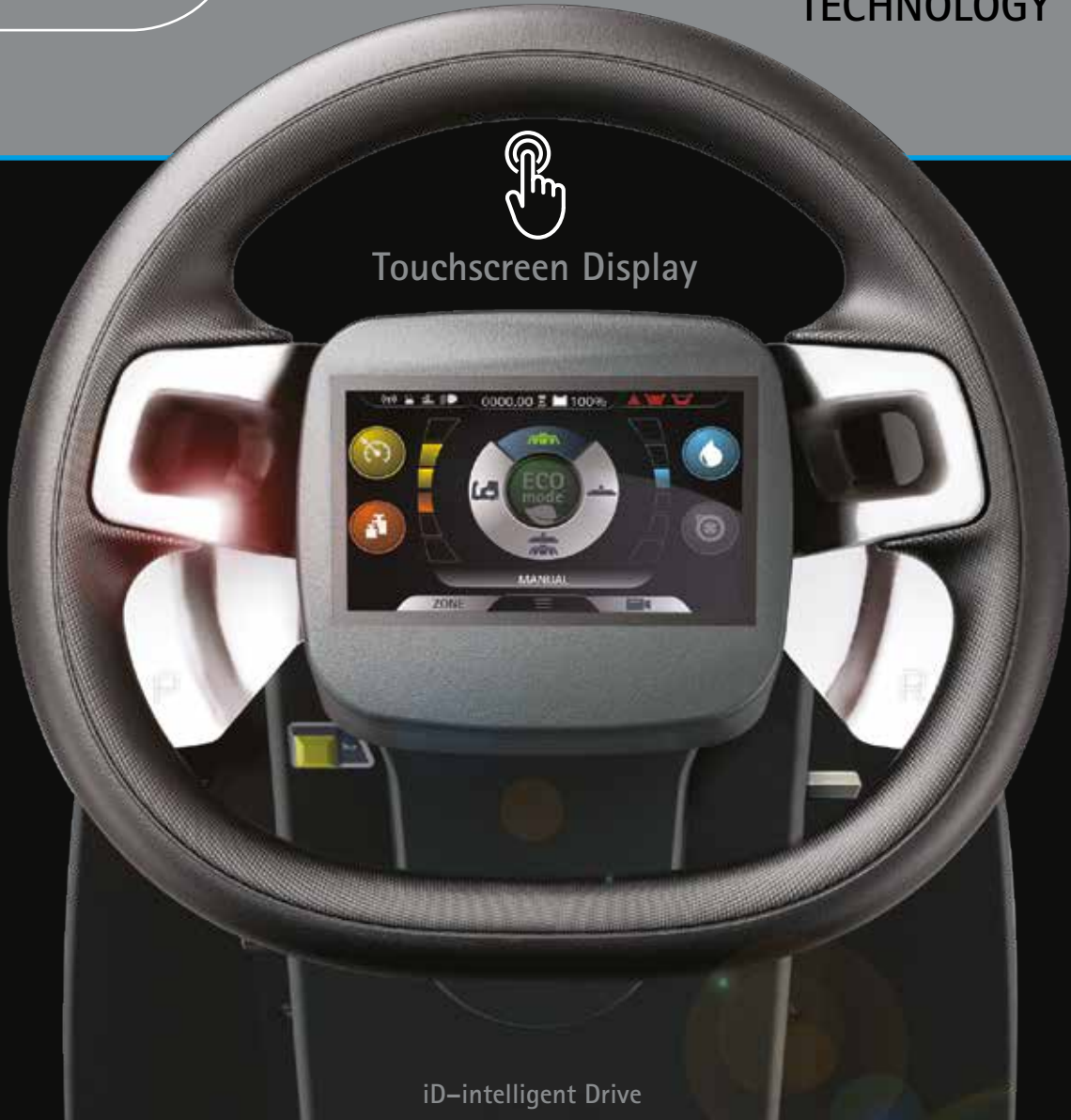
EMERGENCY STOP

By pressing a single button the machine stops immediately





Touchscreen Display



iD-intelligent Drive



TOUCH SCREEN  
DISPLAY



LOG-IN WITH  
PASSWORD



ZONE PROGRAMS



CRUISE  
CONTROL



SUSTAINABLE  
CLEANING



SEVERE  
CLEANING



REAR VIEW  
CAMERA



ANTI-COLLISION  
SYSTEM



VIDEO  
TUTORIALS



# Driving system with touchscreen display which transforms cleaning into a revolutionary experience



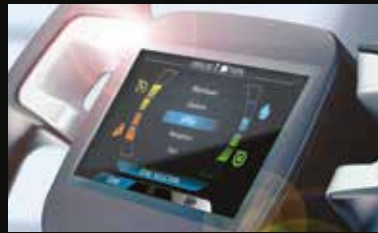
The operator is the centre of a high-tech universe, where everything is easy, intuitive and dynamic

All functions and activities are managed from a single interface, where a mere touch of the finger offers access to an extraordinary choice of customisable features to satisfy all types of requirements with extreme simplicity.

The high definition colour display offers the same intuitive experience as a smartphone



**LOG-IN WITH PASSWORD**  
To protect your investment



**ZONE PROGRAMS**  
For all the performance you'll ever need



**ECO MODE**  
To protect the environment



**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

# MMg

EXPERIENCE CONNECTIVITY



Discover the FFM universe and experience the advantages of being constantly connected, with My.Machine app!



My.Machine



## FIMAP FLEET MANAGEMENT



Watch the video

My.Machine app updates you in real time providing all the essential information to help you keep high the fleet performance. You can see from your smartphone or tablet where your machines are, if they're carrying out the cleaning task or

if any anomaly occurred. You can see the list of the services performed, the charger logs and anomalies occurred, in order to have a complete overview of the health status of each machine.

Keep tabs on your machines remotely when you want and from wherever you want!



### 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.



### HEALTH STATUS

Anytime is possible to monitor the health condition of both machines and batteries to have a clear view of the fleet availability and optimize its coordination.



### ENVIRONMENTAL IMPACT

All the data related to the CO<sub>2</sub> produced per intervention are available as well as the water and detergent consumption, in order to take action and improve the performance.



### 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.



### 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.



### 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.

# MMg

## ENVIRONMENT

Fimap sustainable technologies contribute to protecting the environment and also encourage and help the user to use resources responsibly, offering many advantages.

Advanced technological solutions offer a reduction in cost per sq.m. cleaned, more working autonomy, time savings and better cleaning results, letting you cover more surface area with the same resources.



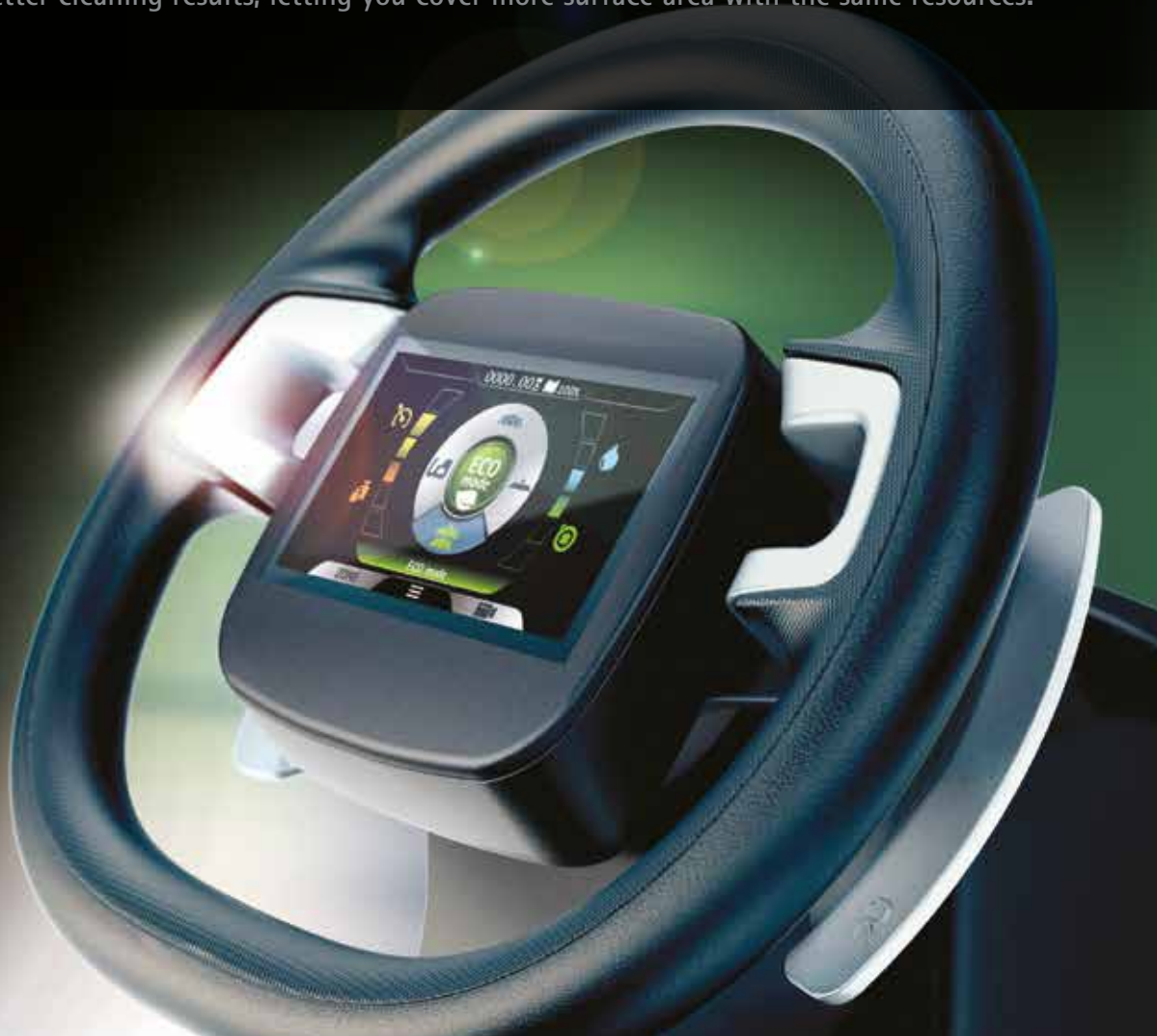
The Eco Mode function helps prevent water, detergent and energy consumption by using only the quantities you need and nothing more



### START&STOP

When the machine is idle, the brush motor, the vacuum motor\*, the traction and the water flow will turn off automatically, reducing costs and emissions. All the functions are reactivated automatically as soon as the operator touches the accelerator again

\* In basic versions suction turns off when the squeegee is lifted up





WATER



FLR-FIMAP LONG RANGE

Reduces water and detergent consumption per cleaning operation by up to 66%\*. This is a system which recycles detergent solution to increase autonomy: to scrub more sq.m. while using less resources



FSS-FIMAP SOLUTION SAVER

Water and detergent quantities are separately dosed, reducing consumption by up to 50%



FWF-FIMAP WATER FLOW

Ensures uniform cleaning results across the entire working width on the first pass, optimising detergent solution consumption

DISINFECTOR

Reduced consumption of sanitizing solution, thanks to a more efficient distribution given by the electrostatic technology

ENERGY



FES-FIMAP ENERGY SAVER

Reduces energy consumption by up to 35%

LED TECHNOLOGY

Up to 80% lower energy consumption than conventional headlights. The LED headlights consume much less energy than conventional headlights, offer a longer lifespan and illuminate with a brilliant white light similar to natural daylight



NOISE LEVELS

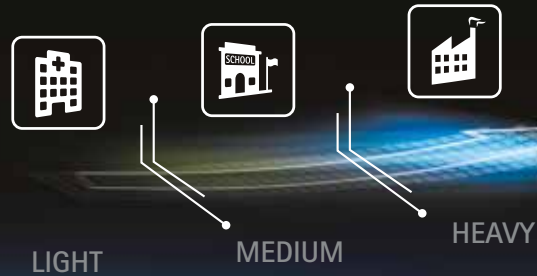


FNC-FIMAP NOISE CANCELLING

Reduces sound pressure

\*Saving calculated on a triple recycling cycle

An extensive choice of configurations to give you the best performance possible in all conditions, on any floor, with any type of dirt and in any environment



DUAL DISC  
with 2 disc brushes or  
2 pad holders



CYLINDRICAL  
with 2 cylindrical brushes and a debris  
hopper for small sized solid debris



ORBITAL  
With pad

A solution for any requirement



# MMg

AVAILABLE IN 2 VERSIONS



Basic



**PLUS**



# OPTIONALS AND ACCESSORIES

## OPTIONALS



Front and rear LED headlights



On-board battery charger for quicker, more convenient charging



The third lateral brush increases cleaning performance along walls (available for MMg disc versions)



2 side sweeping brushes increase cleaning performance along walls (available for Cylindrical versions)



Rear/front super elastic wheels, for minimal vibration and increased comfort



FLR-FIMAP LONG RANGE



FFM-FIMAP FLEET MANAGEMENT



FSS - FIMAP SOLUTION SAVER

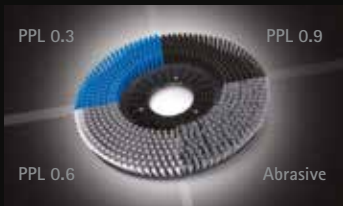


The Disinfecter includes two groups of nozzles located above the tank for sanitizing vertical surfaces and a group at the base of the machine intended for the floor



Sanitizing sprayer to sanitize the machine at the end of the shift (only available with the Disinfecter)

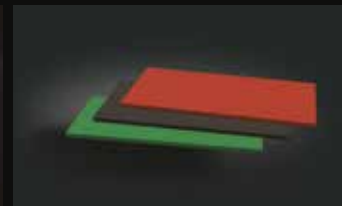
## ACCESSORIES



A wide choice of disc or cylindrical brushes in PPL is offered, available in thicknesses from 0.3 to 0.9 cm. These offer the perfect solution for dealing with any type of dirt on any floor

Abrasive brushes:

Ideal for heavy duty cleaning on industrial surfaces



Pads

**BLACK**

Superior abrasiveness for rapid and thorough heavy duty cleaning

**GREEN**

Ideal for removing dirt from more delicate floors (rubber or linoleum)

**RED**

Ideal for scrubbing delicate or treated floors, and achieving an instant shine



Rear squeegee rubber blades

**33 SHORE (PARA)**

For maintenance cleaning of smooth floors

**40 SHORE (PARA)**

For stubborn dirt on floors with joints

**POLYURETHANE**

For heavy duty cleaning on industrial floors, even with wide gaps

# OPTIONAL AND STANDARD EQUIPMENT

USER EXPERIENCE	DUAL DISC		CYLINDRICAL		ORBITAL
	MMg	MMg Plus	MMg Cylindrical	MMg Cylindrical Plus	MMg Orbital
<b>iD-Intelligent Drive:</b>	-	•	-	•	-
- 5 inch high resolution color touch screen	-	•	-	•	-
- Log-in with password	-	•	-	•	-
- Zone programs	-	•	-	•	-
- Cruise control	-	•	-	•	-
- Eco Mode	-	•	-	•	-
- Power Mode	-	•	-	•	-
- Rear view camera	-	•	-	•	-
- Anti-collision system	-	•	-	•	-
- Video tutorials	-	•	-	•	-
<b>COMFORT</b>					
Hour meter	•	•	•	•	•
Cleaning solution level indicator	•	•	•	•	•
Fresh water empty tank light	-	•	-	•	-
Battery charger	○	○	○	○	○
Brush and squeegee actuator	-	•	-	•	-
Brush and squeegee manual lifting	•	-	•	-	•
Sanitizing sprayer for Disinfectant	○	○	○	○	○
<b>PRODUCTIVITY</b>					
Water flow selector	•	•	•	•	•
Triple pressure selector	-	•	-	•	-
Extra pressure	•	-	•	-	•
Vacuum speed selector	-	•	-	•	-
Right-hand side scrubbing brush	○	○	-	-	-
2 sweeping side brushes	-	-	○	○	-
3 stage vacuum motor	-	•	-	•	-
FFM (Fimap Fleet Management)	○	○	○	○	○
Squeegee and squeegee support in aluminum	•	•	•	•	•
Side splash guards	•	•	-	-	-
Disinfectant*	○	○	○	○	○
<b>SAFETY</b>					
Blinking light	•	•	•	•	•
Driving LED headlights (front-rear)	○	-	○	-	○
Driving (front-rear) and service LED lights	-	•	-	•	-
Super elastic wheels (front-rear)	○	○	•	•	○
Ramp up	•	•	•	•	•
Stop&Go	•	•	•	•	•
Descent control	•	•	•	•	•
ESC (Electronic Stability Control)	•	•	•	•	•
Emergency Stop	•	•	•	•	•
<b>ENVIRONMENT</b>					
FSS (Fimap Solution Saver)*	-	○	-	-	-
FLR (Fimap Long Range)*	○	-	○	-	○
FNC (Fimap Noise Canceling)	•	-	•	-	•
FES (Fimap Energy Saver)	•	•	•	•	•
FWF (Fimap Water Flow)	•	•	-	-	-
Start&Stop	•	•	•	•	•

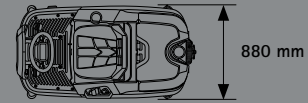
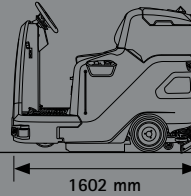
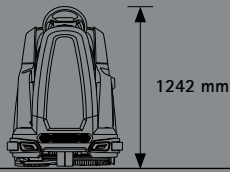
\* The devices cannot be installed together

• STANDARD

○ UPON REQUEST

- NOT AVAILABLE

# DIMENSIONS AND TECHNICAL DATA



TECHNICAL DATA - MMg		DUAL DISC		CYLINDRICAL		ORBITAL
		MMg	MMg Plus	MMg Cylindrical	MMg Cylindrical Plus	MMg Orbital
Productivity theoretical	up to sqm/h	4530		3870		4260
Estimated coverage	up to sqm/h	2643		2258		2485
<b>SCRUBBING SYSTEM</b>						
Working width	mm	755		645		710
Working width with side brushes	(n.) mm	(1) 850		(2) 940		-
Brush motors	(n.) V/W	(2) 24/500		(2) 24/450		(1) 24/680
Brush rpm (central / side)	rpm	140/150		550/65		-
Oscillations	rpm			-		2000
Brush pressure (min - max)	kg	36÷110		30÷40		42÷100
<b>TANK AND RECOVERY SYSTEM</b>						
Solution tank	l			110		
Recovery tank	l			110		
Suction motor	V/W	24/410	24/680 (3 Stadi)	24/410	24/680 (3 Stadi)	24/410
Vacuum water lift	mbar	118	147	118	147	118
Detergent tank capacity (FSS)	l	-	10	-		-
Maximum volume of the debris hopper	l	-	-	8		-
<b>BATTERY SYSTEM</b>						
Supply/traction	V			24/aut.		
Batteries	(no.) V/Ah C5			(4) 6/180 GEL (4) 6/210 WET		
Battery run time*	up to h	4,3	3,9	4,3	4	3,9
<b>PROPELLING SYSTEM</b>						
Forward working speed	km/h			6		
Transport speed	km/h			8		
Gradeability (Working / Transport at gross weight / Trailer ramp empty)	%			7 / 10 / 18		
Traction motor	V/W			24/520		
<b>SPECIFICATIONS</b>						
Machine dimensions (L x h x w)	mm			1602 1242 881		
Squeegee width	mm			880		
Machine weight empty without batteries	kg	267	277	265	275	253
Machine weight empty with batteries	kg	396	406	394	404	382
GVW (Gross Vehicle Weight)	kg	609	615	601	607	585
Sound level (ISO 11201)	dB (A)	63,3	72,2	63,3	72,2	63,3
Sound level (ISO 11201) - Eco Mode	dB (A)	-	67,5	-	67,5	-
Minimum aisle turn	mm			2077		

\*Run times are based on continuous scrubbing run times

# SERVICES

## CONSULTING AND PLANNING



We put our experience at your service, to help you realize the cleaning project perfect you. We suggest you the best solutions to make costs decrease and service quality increase.

## SETUP



We can help you set up your machines in order to make them meet specifically the requirements of the sites of your project, allowing you to always have control over costs and results.

## AUTHORIZED WORKSHOP NETWORK



Fimap Authorized Workshop network spans the globe, so you can enjoy the peace of mind of finding a professional support wherever your business is.

## CONFIGURATION



Your business is unique, only a customized fleet can lead you to better results. We will help you find the configurations that best fit the specific requirements of your cleaning sites, in order to optimize processes and lower costs.

## TRAINING COURSES



Fimap Academy offers courses for all levels, from the correct use of machines and technologies, up to the management of sites and tenders, helping you to make your service really competitive.

## MAINTENANCE AND REPAIR



For your business to run smoothly it is essential that your machines are kept always operational. Our technicians take care of monitoring the machines health status and know how to intervene quickly and effectively when needed.

## FINANCIAL SOLUTIONS



You can choose to use the fleet in different ways. We can advise you on the best financial solution for your business, so that you can get the quality of the Fimap world at the most convenient conditions for you.

## DIGITAL FLEET MANAGEMENT SYSTEM



With Fimap Fleet Management everything is under your control. You can have a complete overview of the service provided and find out the improvements that can be made, basing your considerations on real data, always available via the MyMachine app or FFM website.

## GENUINE SPARE PARTS



Get the most out of your machines, choose the reliability of Fimap original spare parts. They are designed together with the machines, so they perfectly fit them thus guaranteeing the highest quality of performance.

## CERTIFICATIONS



For any additional information or for a demo please contact your usual Fimap dealer



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