

THE VACUUM CLEANER
SELF-PROPELLED FOR URBAN AND INDUSTRIAL WASTES

This New Concept Vorax 240 is a revelation.

New features...



VORAX 240

September 2019

MP
Environnement

We are pleased to present you our company and our solutions for the urban cleaning.

French **Designer and Manufacturer** of cleaning machines for street and green areas since 1978 MP ENVIRONNEMENT propose you a wide range of products suitable for city and industry cleaning, wherever the use of broom becomes impossible and ineffective :

- Electric sweepers
- Electric urban waste vacuum cleaners VORAX
- Electric weeding machines
- Leaves vacuum cleaners
- Leaves dumpers with suction group

Whatever are your projects, our experience and our references on this matter are at your disposal for a next collaboration for which we shall make every effort to give you satisfaction.

Patrick BOUILLER
President



Electric vacuum cleaner VORAX NC340



Electric vacuum cleaner VORAX 240



Electric weeding equipment BRUSH TRACK



Leaves dumper with suction group

100%
Electric

VORAX 240



VORAX 240 is the vacuum for any kind of wastes :
leaves, papers, cigarette butts, cans, bottles, dog excrements, chips, etc.

The New Concept realizes the ultimate innovations in terms of suction, handling and comfort. Contemporary design, the VORAX 240 offers a new vision of the urban vacuum cleaner.

The vacuum cleaner VORAX 240 meets the expectations of cleaning staff. No more painful and unhygienic tasks. Cleaning team's work is valued while increasing efficiency and respects the environment.

CONCEPTION

A modern and functional design, and a very ergonomic steering head ensure a total adaptation to all kinds of operator's morphologies.

Controls are simple and easy-to-use and guarantee a shorter adaptation.

All these developments make these vacuum cleaners truly reliable in their field, offering maximum performance for minimum operating costs.

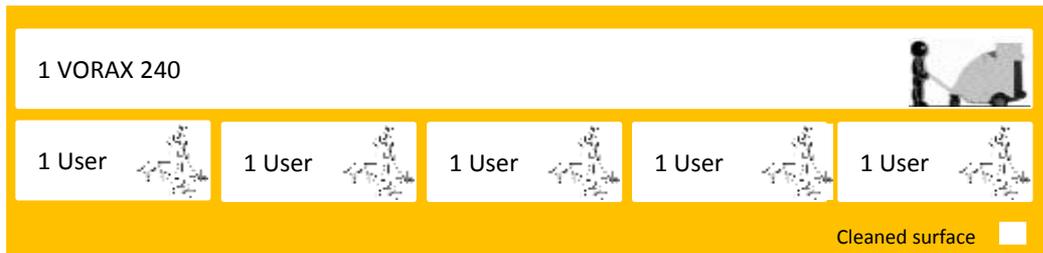
An ideal solution for communities and industries.

- VORAX 240 – 100% ELECTRIC
- ZERO CO2 EMISSION
- SELF-PROPELLED
- AUTONOMY : FROM 8H to 16H
- SUCTION POWER : 2000 WATTS
- FILTER F9 WITH AUTOMATIC CLEANING (WITHOUT DISMANTLING)

VORAX 240



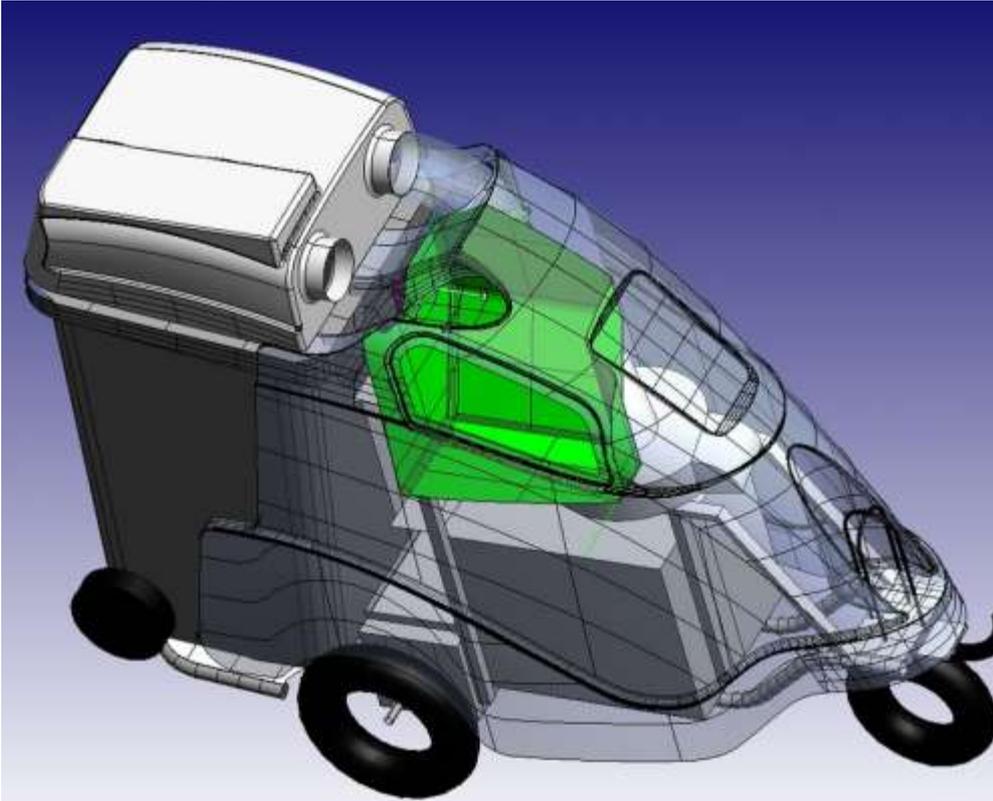
With the VORAX 240, your city will be cleaner.



VORAX ADVANTAGES

Brush and shovel	VORAX 240
Visible wastes, smells	Wastes are sucked into a 240 L container
Not ergonomic, MSD	Ergonomic and decreases strongly the MSD (Musculoskeletal disorders)
Laborious waste collection	Suction by depression, no effort
Sidewalk accessibility	Easy to handle, self-propelled machine, 70 cm wide
No security	Flashing light, Reflective strips, Reverse Beep , Emergency button, « deadman » and anti-crushing system etc.
Risk of injury (glass, needles, etc.)	No contact with wastes
Poor image	Cleaning teams more motivated and upgraded

VORAX 240 - Characteristics



Standard equipment

VORAX : Characteristics	VORAX 240
1.01 Propulsion type : Electrical	Electrical
2.01 Anti-crushing system	<input type="checkbox"/>
2.02 Emergency stop device	<input type="checkbox"/>
2.03 General contact by key	<input type="checkbox"/>
2.05 Low level battery indicator, time counter	<input type="checkbox"/>
2.07 Free wheeling system to move the machine in case of breakdown	<input type="checkbox"/>
3.01 Maximum speed forward mode	6 km/h & 3 km/h
3.02 Maximum speed reverse mode	3 km/h
3.03 Maximum grade with maximum load	25,00%
4.01 Volts	24V
4.02 Battery lifetime (depends on the use) – Lead batteries	8h to 16h
5.01 Battery charger	Charge 8h to 10h
6.01 Traction engine : Electrical – Engine's voltage	24 volts
6.02 Engine power	1500 watts
6.03 Electrical propulsion with differential axle	<input type="checkbox"/>
6.04 Variable drive speed with accelerator (rotating wings)	<input type="checkbox"/>
7.01 Turbine engine: electrical, Engine's voltage	24 volts
7.02 Engine's power	2000 watt
8.02 Electromagnetic brakes, unlocking system without tools	<input type="checkbox"/>
8.03 Frame : Electro-galvanised steel	<input type="checkbox"/>
8.04 Weight with batteries, without option	350 kg
8.07 Composite enclosures (recyclable)	<input type="checkbox"/>
8.08 Dust filtration system	<input type="checkbox"/>
8.11 Container volume	240 Liters
9.01 Length +- 10 mm (steering = folded)	2000 mm
9.02 Width +- 10 mm	700 mm
9.03 Overall machine height (without flashing light)	1500 mm
10.01 Pneumatic back drive wheels and directional front wheels	2 + 1
10.03 Sound pressure levels measured at 10 m–Double soundproofing	55 dBa
11.01 Suction nozzle Ø 100 mm (or 125 mm on request)	<input type="checkbox"/>
11.05 Fire extinguisher 1 Kg	<input type="checkbox"/>
11.02 Support for broom and shovel	<input type="checkbox"/>
11.03 Reversing alarm	<input type="checkbox"/>
11.04 Flashing light	<input type="checkbox"/>
11.14 Reflecting strips	<input type="checkbox"/>
11.07 Electrical shaker for filter & automatic filter cleaning	<input type="checkbox"/>
11.09 Trap door for voluminous wastes	<input type="checkbox"/>

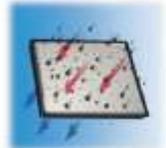


VORAX 240 - Standard equipments

Conception



Ergonomic and adjustable handle.
Mounted on a pvc suction pipe, light and deformable (no risk of break)



Filter F9
Stops 99.9% of 0.5 micron dusts.



Noise level : close to silence, sound pressure = 55 db(A)



Flashing light visible at 360°



Standard container of 240 litres



LCD Screen - Time counter
Low level battery indicator.
At 80% of discharge the turbine stops to ensure the come back at the warehouse



4 lead batteries with automatic water filling



Ambidextrous steering head with an anti-crushing system to makes the vacuum moving back automatically.



Cover protection with anti-wear strip



Reflecting strips



Fire extinguisher according to CE NF standard



Control panel with :
- Time counter
- Battery discharge level
- Emergency button
- Slow and fast speed



Safety brake with power cut system.
Unlockable in case of breakdown.
Additional security :
Reverse Beep - Turbine cut when 80% discharge reached



Shaker for filter cleaning.
The regular use of this function allows to finish the work without making filter's cleaning.



The trapdoor for voluminous wastes allows to put in the container the waste which cannot be sucked up. The trapdoor can be opened even if the turbine is running.

Why to choose an electronic steering head ?

The steering head has also a safety system with a special shape which reverses the direction and immediately stops the VORAX as soon as the user touches lightly the switch.

Impossible to be between an obstacle and the vacuum cleaner with the steering head wedged at the level of the sternum.

The special shape and the position of the switch ensures total safety whatever the position of the steering head, and apart from the user size.

The steering head is used to move the VORAX, turning the "butterflies" in one direction or in the other direction, the machine moves forward or backward.

When the "butterflies" are released, the electromagnetic brake is engaged and the machine stops.

With this steering head, our VORAX offers a maximum safety and comfort. Thus, the forward speed can be adjusted exactly thanks to the pressure on the "butterfly".

As the control buttons are easily accessible and symmetrically placed, left-handers users can also drive comfortably.

Anti-crushing system on the steering head, automatic reversal device which operates as soon requested. Equipped with safety devices (dead man, anti-crush). Impossible to be stuck between an obstacle and the vacuum cleaner.



The "butterflies" allow to move forward or move back the VORAX gradually.
Ambidextrous controls.
When the "butterflies" are released, the electromagnetic brake is engaged and the vacuum stops immediately.

Material absorbing the vibrations

Material absorbing the vibrations allows a secure and easy handling and without tiredness.

Large and robust handle, shock resistant.

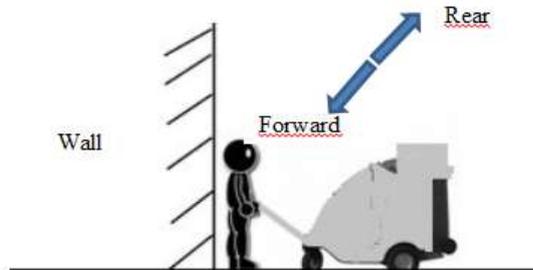
Well sized buttons to facilitate the work with gloves.

Reinforced hand safety thanks to the rounded shape of the steering head.

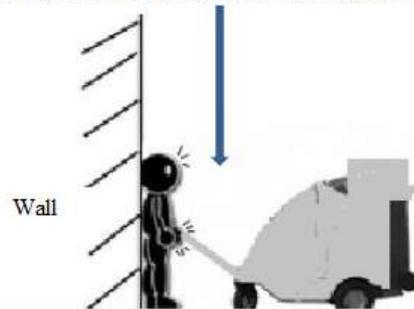
Why to choose an electronic steering head ?

Classical vacuum cleaner

Lower the steering head to go forward
Lift the steering head to move back



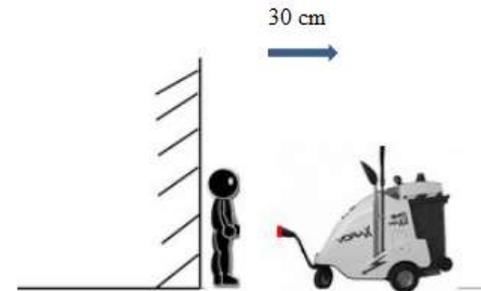
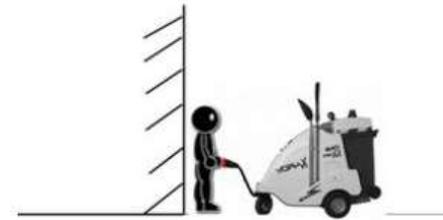
Bad operation of the operator consequences



The operator is blocked between the wall and the steering head of the vacuum. According operator's size, the handle can be locked at the sternum's height and **can cause physical hurts**.

VORAX New concept

Turn the rotating wings to go forward and move back.



An anti-crushing system on the steering head makes the vacuum moving back automatically of around 30 cm, as soon as it is activated.
No risk of crushing.

EC MACHINES Directive 2006/42 specifies :

"Ergonomics-Safety: One must take into account the various morphological datas of the users"

VORAX 240 : Options



Working light
Leds light for night work



Castor nozzle
Reduces the efforts



Weeding kit
Fixed on the nozzle, it allows to weed along sidewalks and to suck the grass and the seeds at the same time



Spraying system in the 240 l container
Disinfects, perfumes and moistens the container. Constant humidity reduces the risk of fire. Brings down dusts at the bottom of the container).



Kit for washing mess, including :
- 1 water hose under pressure to remove dog's excrements + floor disinfection.
- 1 pump with non-return valve
- 1 kit of 2,5 ml pipe



Rear red LED lights

VORAX 240 : Options

Conception

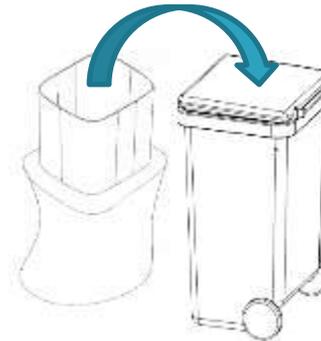


Automatic fire extinguisher
It is automatically triggered by a glass thermocouple when the container reaches 80° C

Lithium battery

Gel battery
Battery without maintenance
(in replacement of lead batteries)

Waste plier kit



Kit GPS (localisation)

VORAX Trailer
Platform Dim. 200 x 80 cm
Total permissible gross weight : 500 kg
Overall dimension : 1840 x 225 cm
Allows to carry your VORAX from a workplace to another one

Plastic bag kit
Keep the plastic bag of 240 l in the container

Personal and lockable box.
Can contain 1 bottle of 2 liters, 240 l plastic bags, personal belongings...

For a cleaner city !

VORAX 240 - Essential cleaning tool for : cities, industries, streets, walkways, parks, markets, car parks, train stations, airports, schools...



Walkways
Streets
Sidewalks

Airports
Train stations
Exhibition halls

Amusement parks
Zoos
Camping sites

Places
Universities
Schools
Industries

Embankments
Ports
Bike path

No more dusts ! Automatic filter cleaning

Designed to improve the air quality, to optimize the performance of the machine and to increase its effectiveness.

The electric shaker is the ultimate solution with regard to filtration.

This system increases the lifetime of the filter at reduced costs. Equivalence filtration's surface = 30 m².

With a start-up time of 10 seconds, the electric shaker removes most of the fragments from the filter.

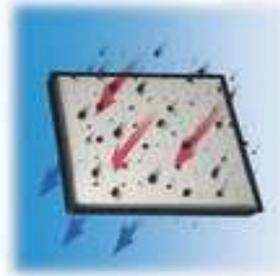
The electric shaker maintains a high suction capacity, maintains the filter's efficiency, and prevents dust clogging. Actionable at any time, an automatism cuts the suction of the turbine during the shaking operation, otherwise the operation would be ineffective.

The regular use of this function allows to finish the work without cleaning the filter. The electric shaker allows to annihilate the charge losses during the day.

It is important to realize this operation also before replacing the full container by an empty one.



Electric shaker
(Standard equipment)



Filtre F9

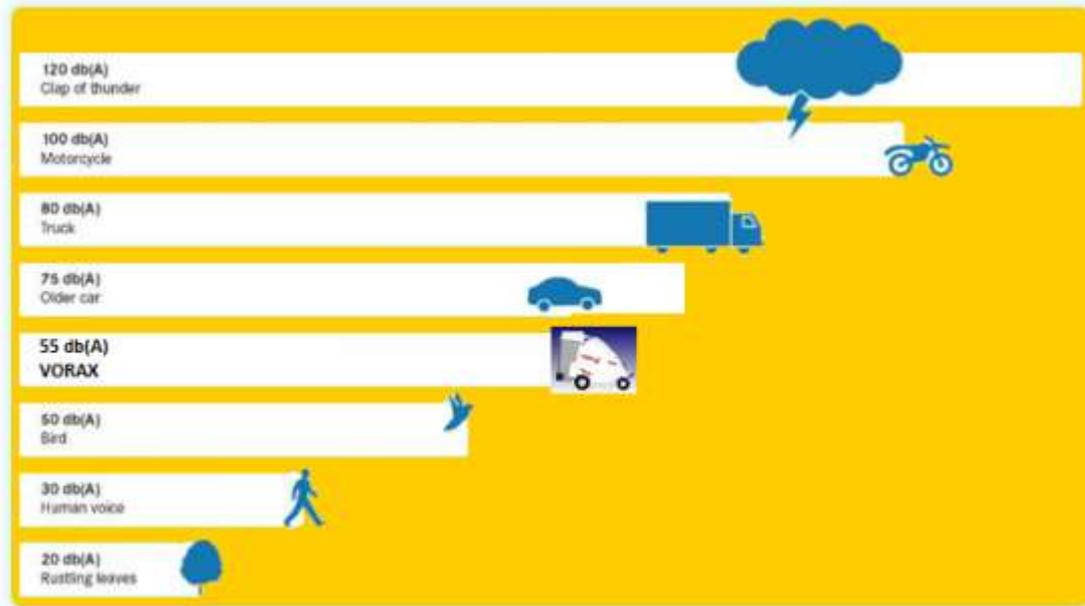


Spraying system
(Option)

Noises : That's enough !

VORAX 240 noise level : close to silence, sound pressure = 55 db(A)

More silence for the comfort of the population



Standard equipment

The trap door allows to throw in the container all voluminous wastes which cannot be sucked up. The total volume of 240 liters can be used.

The trap door can be opened while the suction is running.
Voluminous wastes are no longer visible in the streets.

To prevent bad smells : the door is hermetically closed and a deodorant is sprayed inside.

Option

Spraying system in the 240 liters container (Optional)

Disinfects, perfumes and moistens the container. Constant humidity reduces the risk of fire.

Trap door for voluminous wastes with sealing gasket



MP ENVIRONNEMENT REFERENCES

Our main customers are the municipalities : more than 1.500 references.

Other customers are highway companies (SA Paris Rhin Rhône, ATMB, ...) cemeteries, schools, colleges, high schools, hospitals, Departmental Equipment and some services providers as ONYX, ONET, GEPUR ou OTN.

National market share = 60% - International = 40%.

Non-exhaustive list of our references :

France

BALARUC LE VIEUX (34) – LA ROCHE SUR YON (85) – BAGNEUX (92) – NICE (06) - CONSEIL GENERAL DE L'ARDECHE (07) - ISSOIRE (63) – METZ (57) – LE CHAMBON FEUGEROLLES (42) – TOURCOING (59) – MACON (71)– LOURDES (65) - GRANVILLE (50) – ST GENIX/GUIERS (73) – ST JULIEN DE CONCELLES (44) – VIERZON – MERIGNAC (33) – VINCENNES (94) – VILLIERS/MARNE (94) – ST CHELY D'APCHER (48) – ANGET (64) – AUXERRE (89) – VERVINS (02) – LE POULIGUEN (44) – DOUARNENEZ (29) – CONCARNEAU (29) - GUJAN MESTRAS (33) – FONTENAY SOUS BOIS (94) – DREUX (28) - ROUBAIX (59) – LE PONT DE BEAUVOISIN (38) - ANSE (69) - AULNAY-SOUS-BOIS (93) - Autoroute Tunnel du Mont Blanc (74) - AVRANCHES (50) - BEAUCAIRE (30) - BELLEVILLE (69) - CADIERE D'AZUR (83) - CHAMALIERES (63) - CHAMPIGNELLE (89) - CLERMONT FERRAND (63) –COUBLEVIE (38) - COUTANCES (50) - ECHIROLLES (38) - FAVERGES (74) - FERRIERE EN GATINOIS (45) - FONTENAY SOUS BOIS (94) - GARDANNE (13) - HONFLEUR (14) - HYERES (83) - LADON (45) - LIBOURNE (33) - MANTES LA JOLIE (78) - MONTBRISON (42) - MONTREUIL (93) - MONTROND LES BAINS (42) - MOZAC (63) - NOGENT SUR MARNE (94) - Parc Zoologique de PARIS (75) - PARIS (75) - PAU (64) - PEAGE DE ROUSSILLON (38) - Racing Club de France (75) - ROMANS (26) - RUOMS (07) - S.A. Paris Rhin Rhône - SAINT DOULCHARD (18) - SAINT JEAN DE MOIRANS (38) - SAINT JUST (34) - SAINT LAURENT D'ANDENAI (77) - SANNOIS (95) - SEILLANS (83) - ST MARTIN LA GARENNE (78) - SURY LE COMTAL (42) - TINTÉNIAC (35) - VARGES (38) - Sté VEOLIA - VEYRAC (34) - VILLEFRANCHE DE ROUERQUE (12) - VILLEFRANCHE SUR SAONE (69)

International

SOUTH AFRIC- ALGERIA - GERMANY - ANDORRA - GREAT BRITAIN- ARGENTINA - AUSTRALIA - AUTRIA - BELGIUM - BRAZIL - CANADA - CYPRUS - COLOMBIA - CROATIA - DENMARK - EGYPT - SPAIN - USA - FINLAND - GREECE - IRLAND - ISRAEL - ITALY - KOWEIT - LATVIA - LEBANON - LUXEMBOURG - MOROCCO - MEXICO - NORWAY - NEW ZEALAND - OMAN - POLAND - PORTUGAL - QUEBEC - SWITZERLAND, TURKEY





The urban cleaning is easier !



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