

VIGGO

VIGGO·MAKE CLEANING EASIER



VERTRIEBS- UND SERVICEPARTNER
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PRODUCT BROCHURE

VIGGO
AUTONOMOUS DRIVING



IDRIVERPLUS

Company introduction

Beijing Idriverplus Technology Co., Ltd. (hereinafter referred to as IDRIVERPLUS) was established in 2015, focusing on the research and development of the brain of autonomous driving vehicles and committed to becoming a provider of general scene L4 solutions. The company has obtained investment from many well-known investment institutions such as HOPU-ARM Innovation Fund (Hopu fund /Arm), Baidu, Shunwei, Jingdong, etc. IDRIVERPLUS is in the head of the industry in terms of its technical and product capabilities. It has completely built the triathlon with software, hardware and data as the core. The self-developed autonomous driving brain has successfully empowered many fields, such as intelligent transportation, intelligent life and special application. It has gradually realized its corporate vision of building a smart life with autonomous driving brain.

500+

team members

1000+

patents

100+

landing scenes



IDRIVERPLUS

Core competitiveness

Through patented technologies such as effective perception, precise positioning, planning and decision-making and precise control, IDRIVERPLUS realizes empowering multi-scene applications with one autonomous driving brain and provides full-stack solutions.

The core control system that empowers the products can realize OTA remote update. At the same time, the large-scale product landing brings rich cash flow to IDRIVERPLUS and provides strong support for the company's continuous investment and development. The real-time multi-scene data back-flow also promotes the continuous update of the underlying technology platform of IDRIVERPLUS.

Core competitiveness

■ Algorithms, computing power and data build technical barriers to realize the closed loop of triathlon of autonomous driving brain

- **Algorithm barriers:** Full-stack self-developed operating system and algorithm, with hierarchical structure, high degree of decoupling and high degree of scenario reuse.

The unique technical route of "emphasizing the perception and depending less on the map" of IDRIVERPLUS can accelerate the landing of a variety of complex scenes.

- **Computing barriers:** IDRIVERPLUS developed a variety of vehicle-grade heterogeneous computing platforms, supporting multi-device and multi-scenario with low-cost and high-computing power.

- **Data barriers:** Thousands of sets of autonomous driving brains have been implemented around the world and rich data can be obtained at low cost. Algorithms iterate continuously and rapidly due to massive structured and unstructured feedback data.

■ IDRIVERPLUS has independently developed an vehicle-grade software and hardware integration platform, with a leading technical level.

- **AVOS**, an autonomous driving operating system based on human-car-road closed loop can adapt to multiple business scenarios.

- **Brainbox hardware computing platform**, a vehicle-grade hardware computing platform can meet the requirements of different modules of autonomous driving for high computing power and high real-time.

- **Completely independent and controllable top technology accumulation:** IDRIVERPLUS has more than 5 million kilometers of cumulative application mileage of autonomous driving. The company's actual road test index has won a number of domestic firsts with independent intellectual property rights.

■ The autonomous driving brain realizes the rapid application of multiple scenarios and models and has mature full-scale production capabilities of vehicle-grade products.

- **A variety of vehicle-grade products:** Strong integration of software and hardware with the autonomous driving brain as the core realizes the landing of a variety of vehicle-grade, mass-production-ready software and hardware products.

- **Multi-scenario and multi-product implementation:** The product has strong versatility and has been applied in Robotaxi, Robobus, sweeper, logistics vehicle, patrol car and other multi-scenario and multi-product implementation.

- **Construction of mature production lines:** IDRIVERPLUS has 3 production lines, which are located in Hefei, Wuhan and Zhongshan and it has achieved mass production of multiple L2+/L3/L4 products.

VIGGO

Product family introduction

VIGGO is a sub-brand of the commercialization of IDRIVERPLUS 's autonomous driving technology in the field of intelligent life and is the first brand in China to achieve large-scale mass production of unmanned cleaning vehicles.

Since the birth of the first product of the VIGGO series, VIGGO has landed in more than 100 cities and more than 1,000 customer sites, with a cumulative cleaning area of hundreds of millions of square meters.

At the same time, based on the landing application in transportation hubs, commercial supermarkets, industrial logistics, hotels, office buildings, parks, scenic spots and other scenarios, VIGGO has created a complete multi-industry and multi-scenario solution.



VIGGO S100-N
Autonomous driving floor sweeper
Sweeping/vacuuming for large indoor/outdoor areas



VIGGO SC80
Autonomous driving floor scrubber
Scrubbing/sweeping/mopping for medium & large indoor/outdoor areas



VIGGO SC50
Autonomous driving floor scrubber
Scrubbing/sweeping/mopping for small & medium indoor areas

Workstations



WSC80&WSC50
VIGGO workstation
Autonomous driving floor scrubber workstation

Functions

VIGGO SC80S
Autonomous driving floor scrubber with spray function
Scrubbing/sweeping/mopping/spraying for medium & large indoor/outdoor areas



VIGGO SC80Pro
Autonomous driving floor scrubber
Scrubbing/sweeping/mopping Large & medium-sized indoor low light scenes



VIGGO SC50S
Autonomous driving floor scrubber with spray function
Scrubbing/sweeping/mopping/spraying for small & medium indoor areas



VIGGO SC50Pro
Autonomous driving floor scrubber
Scrubbing/sweeping/mopping Small & medium-sized complicated indoor scenes



Product strengths



Safe

Dual protection of hardware and software. Vehicles are safe and people are safer.

- Leading fusion positioning and perception technology and 360 degree coverage without blind spots ensure safe driving of devices in multiple scenarios.
- A variety of safety guarantees, like electromagnetic brake, safe parking, anti-collision, anti-fall and anti-skidding, make the operation safer.
- Multi-mode intelligent obstacle avoidance, flexible narrow lane traffic, narrow lane U-turn and intelligent path planning deal with various complex scenarios easily.
- Fully self-developed vehicle-grade embedded computing platform, hardware and algorithm double guarantee, independent and controllable, technology leading



Efficient

Clean efficiently to reduce costs and increase efficiency.

- One machine has multiple functions, including floor scrubbing, sweeping, vacuuming, mopping, and spraying. It can adapt to multiple scenes and a variety of floors without worry.
- Support a variety of task modes, support a variety of obstacle avoidance and path planning algorithms, and adapt to various complex site needs.
- Access control and elevator linkage can achieve cross-area and cross-floor autonomous cleaning without manual intervention.
- Have long water and electricity endurance. Improve the battery life of a single operation. Clean large scenes more efficiently.
- Three major cleaning modes are guaranteed, eliminating omissions and leaving no dead ends, so the overall cleaning effect is guaranteed.
- High-definition fast mapping, supporting map update, map expansion and map editing lead to strong adaptability to different scenes.



Convenient

Rapid deployment, convenient interaction, intimate and perfect operation and after-sales system.

- Minimalist interactive design, simple operation interface, mobile phone service reminder and cloud platform business statistics make application easy.
- Multiple task modes support multiple management modes such as combined tasks, scheduled tasks and remote tasks, making daily operations easy and convenient.
- The cloud-based periodic cleaning report provides data dashboards such as cleaning efficiency, cleaning area and task progress, making management more worry-free.
- One-to-one manager, 7X24 hours intimate service and 30 minutes quick response make deployment, application and after-sales process worry-free.
- Remote fault handling, silent OTA upgrade and 2-hour emergency rescue for computer crash make service process uninterrupted.

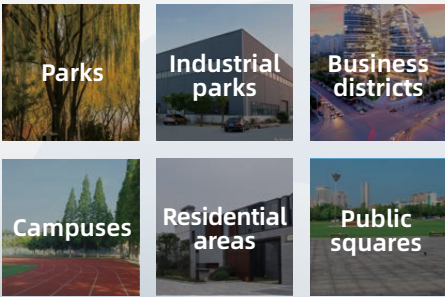
VIGGO S100-N

Autonomous driving floor sweeper

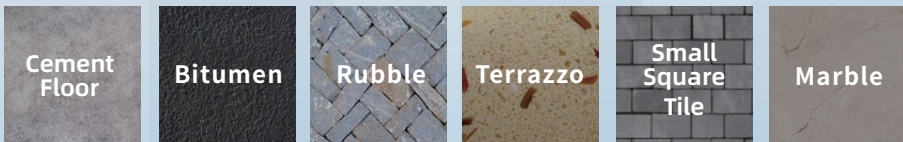


Sweeping
Large outdoor areas

■ Sites



■ Floors



■ Product functions



Simple operation
Break point resuming, automatic recall under low-battery conditions, automatic parking.



Professional cleaning
Break point resuming, automatic recall Rolling brush sweeping, large air volume vacuuming, side brush spray dust suppressing.



Efficient cleaning
Combination of main brush and side brush, cleaning rate>98%.



Edge cleaning
Active roadside identification can truly achieve zero-distance edge cleaning.



Hassle-free
Scheduled task, automatic wake up, scheduled operations.



Easy to manage
Automatically upload operation reports. Data reports are available at your fingertips.

■ Product parameters

| | |
|------------------------------------------------------------------|----------------------------------------------------------|
| Dimension: 1706(L)x927(W)x1199(H)mm | Net weight: 395kg |
| Sweeping width: 100cm | Max cleaning efficiency: 3000m²/h |
| Battery: 24V/200Ah | Range: 30~40km (with operating conditions considered) |
| Runtime per charge: 6h (with operating conditions considered) | Charging time: 4~5h |
| Trash can capacity: 60L | Water tank capacity: 60L |
| Turning Radius: 150cm | Max travel speed: 5km/h |
| Max slope: ≤10° | Applicable environment (outdoor): -15℃~40℃ |

VIGGO SC80

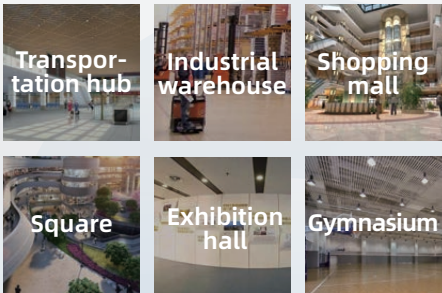
Autonomous driving floor scrubber



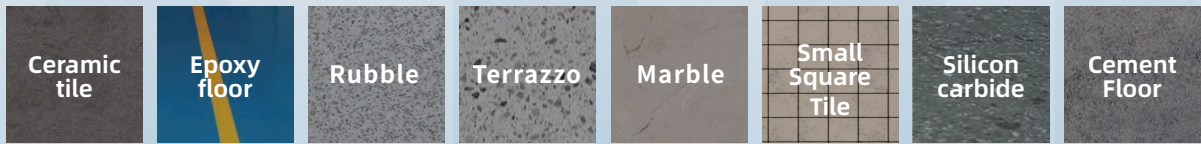
Scrubbing/sweeping/
mopping

Medium and large
indoor/outdoor areas

Sites



Floors



Product functions

- Adaptive cleaning**
Automatically adjustable roller brush, adaptable to various floors.
- High-quality cleaning**
No filtration, higher cleaning quality, lower cost on consumables and maintenance.
- Fully automatic operation**
Automatically adjustable roller brush, Break point resuming, cleaning of missed areas, automatic water filling/draining, automatic charging, access control and elevator linkage.
- Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process.
- Long-time operation**
36V/200Ah battery, 310L water tank.
- Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- Hassle-free**
cheduled tasks, automatic wake up, scheduled operations.
- Easy to manage**
Automatically upload operation reports. Data reports are available at your fingertips.

Product parameters

| | |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Dimension: 1340(L)x1024(W)x1350(H)mm | Net weight: 400kg |
| Sweeping width: 1160mm | Scrubbing width: 800mm |
| Squeegee width: 1024mm | Max cleaning efficiency: 4000m²/h |
| Battery: 36V/200Ah,LiFePO4 battery | Runtime per charge: 4~6h |
| Solution tank capacity: 140L | Recovery tank capacity: 170L |
| Trash can capacity: 1.5L | Sensors: Multi-beam LiDAR, single-beam LiDAR, depth camera, ultrasonic radar, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Operating noise: ≤70dB(A) | |
| Max slope: ≤10° | |

VIGGO SC80S

Autonomous driving floor scrubber with spray function

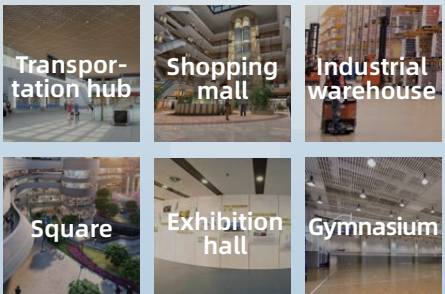


Scrubbing/sweeping/spraying/
mopping

Medium and large indoor/outdoor areas



Sites



Product functions

- All-in-one**
The cleaning and spray functions are relatively independent. Different cleaning modes of sweeping, washing and mopping can be selected when performing the spray work.
- User-friendly design**
The water filling design is convenient. The spray is stopped when parking. The spray size can be adjusted.
- Fully automatic operation**
Break point resuming, cleaning of missed areas, automatic water filling/draining, automatic charging, access control and elevator linkage.
- Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process
- Long-time operation**
36V/200Ah battery, 310L water tank. The efficiency of atomization is 1.5L/h with a 5L large spray tank.
- Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- Hassle-free**
Scheduled task, lack of liquid alarm prompt.
- Easy to manage**
Automatically upload operation reports. Data reports are available at your fingertips.

Product parameters

| | |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Dimension: 1470(L)x1030(W)x1350(H)mm | Battery: 36V/200Ah |
| Spray tank volume: 5L | Solution tank capacity: 140L |
| The size of the atomized particles: <10µm | Recovery tank capacity: 170L |
| Maximum atomization volume: 1.5L/h | Sweeping width: 1160mm |
| Atomization volume adjustable: 3 gear adjustable | Scrubbing width: 800mm |
| Water adding way of spray tank: Adding water from above | Sensors: Multi-beam LiDAR, single-beam LiDAR, ultrasonic radar, vision sensor, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Runtime per charge: 4~6h | |

VIGGO SC80Pro

Autonomous driving floor scrubber



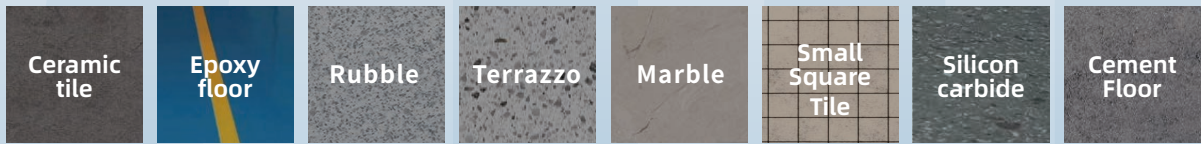
**Scrubbing/sweeping/
mopping**

Large and medium-sized indoor
low light scenes

Sites



Floors



Product functions

- Warning function**
Equipped with the warning light module, it can timely remind the position of the vehicle in different environments to ensure the safety of people and vehicles.
- Adaptive cleaning**
Automatically adjustable roller brush, adaptable to various floors.
- High-quality cleaning**
No filtration, higher cleaning quality, lower cost on consumables and maintenance.
- Fully automatic operation**
Automatically adjustable roller brush, Break point resuming, cleaning of missed areas, automatic water filling/draining, automatic charging, access control and elevator linkage.
- Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process.
- Long-time operation**
36V/200Ah battery, 310L water tank.
- Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- Hassle-free**
cheduled tasks, automatic wake up, scheduled operations.

Product parameters

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| Dimension: 1340(L)x1024(W)x1350(H)mm | Net weight: 400kg |
| Sweeping width: 1160mm | Scrubbing width: 800mm |
| Squeegee width: 1024mm | Max cleaning efficiency: 4000m²/h |
| Battery: 36V/200Ah,LiFePO4 battery | Runtime per charge: 4~6h |
| Solution tank capacity: 140L | Recovery tank capacity: 170L |
| Trash can capacity: 1.5L | Sensors: Multi-beam LiDAR, single-beam LiDAR, depth camera, ultrasonic radar, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Operating noise: ≤70dB(A) | |
| Max slope: ≤10° | |

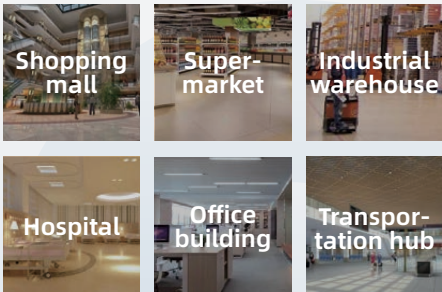
VIGGO SC50

Autonomous driving floor scrubber

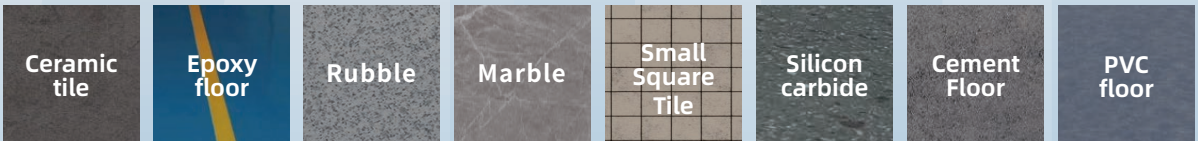


Scrubbing/sweeping/mopping
Small and medium indoor areas

Sites



Floors



Product functions

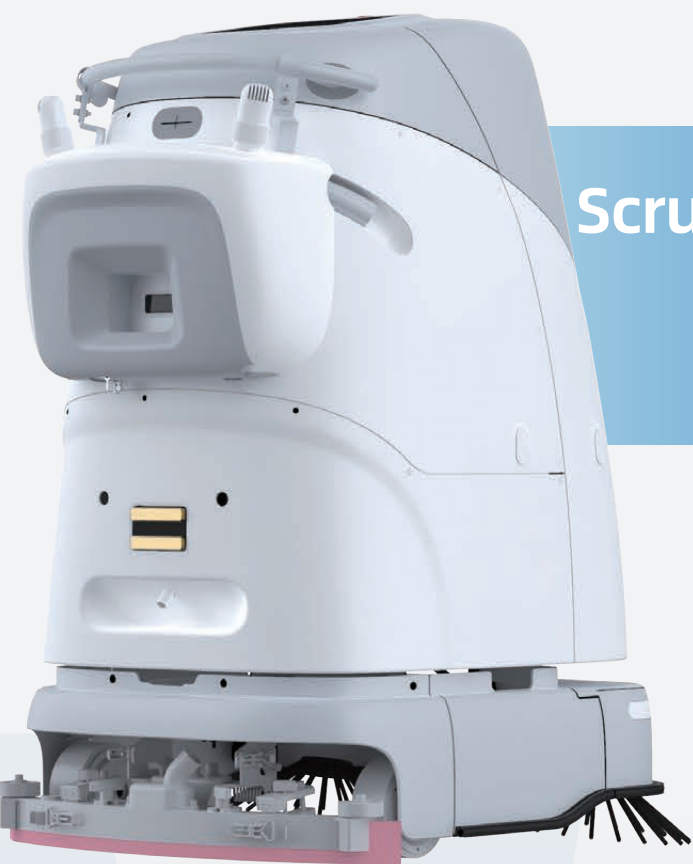
- Adaptive cleaning**
Automatically adjustable roller brush, adaptable to various floors.
- Fully automatic operation**
Automatically adjustable roller brush, Break Break point resuming, cleaning of missed areas, automatic water filling/draining, automatic charging, access control and elevator linkage.
- Long-time operation**
24V/60Ah battery, 72L water tank, optional filtering.
- Hassle-free**
Scheduled tasks, automatic wake up, scheduled operations.
- All-in-one**
Either ground washing or dust mopping module can be selected. Three functions, sweeping, scrubbing and mopping, are optional.
- Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process.
- Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- Easy to manage**
Automatically upload operation reports. Data reports are available at your fingertips.

Product parameters

| | |
|------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Dimension: 800(L)x700(W)x1200(H)mm | Net weight: 180kg |
| Sweeping width: 800mm | Scrubbing width: 500mm |
| Squeegee width: 700mm | Max cleaning efficiency: 1800m²/h |
| Battery: 24V /60Ah,LiFePO4 battery | Runtime per charge: 2~2.5h(Scrubbing) 5~7h(Mopping) |
| Solution tank capacity: 42L | Recovery tank capacity: 30L |
| Trash can capacity: 1.5L | Sensors: LiDAR, ultrasonic radar, vision sensor, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Operating noise: ≤70dB(A) | |
| Max slope: ≤8° | |

VIGGO SC50S

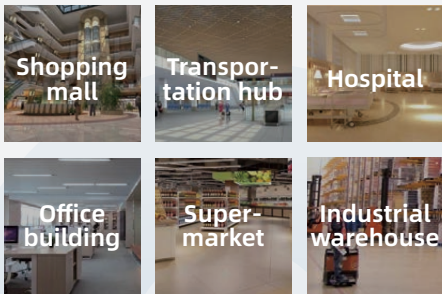
Autonomous driving floor scrubber with spray function



Scrubbing/sweeping/mopping/
spraying

Medium indoor areas

Sites



Product functions

- **All-in-one**
The cleaning and spray functions are relatively independent. Different cleaning modes of sweeping, washing and mopping can be selected when performing the spray work.
- **User-friendly design**
The water filling design is convenient. The spray is stopped when parking. The spray size can be adjusted.
- **Fully automatic operation**
Break point resuming, cleaning of missed areas, automatic water filling/draining, automatic charging, access control and elevator linkage
- **Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process.
- **Long-time operation**
24V/60Ah battery, 72L water tank. The efficiency of atomization is 1.25L/h with a 3L large spray tank.
- **Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- **Hassle-free**
Scheduled task, lack of liquid alarm prompt.
- **Easy to manage**
Automatically upload operation reports. Data reports are available at your fingertips.

Product parameters

| | |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Dimension: 900(L)x740(W)x1200(H)mm | Battery: 24V /60Ah |
| Spray tank volume: 3L | Solution tank capacity: 42L |
| The size of the atomized particles: <10µm | Recovery tank capacity: 30L |
| Maximum atomization volume: 1.25L/h | Sweeping width: 800mm |
| Atomization volume adjustable: 3 gear adjustable | Scrubbing width: 500mm |
| Water adding way of spray tank: Adding water from above | Sensors: LiDAR, ultrasonic radar, vision sensor, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Runtime per charge:2~3h(Scrubbing)/5~7h(Mopping) | |

VIGGO SC50Pro

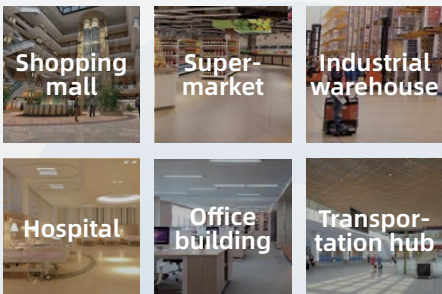
Autonomous driving floor scrubber



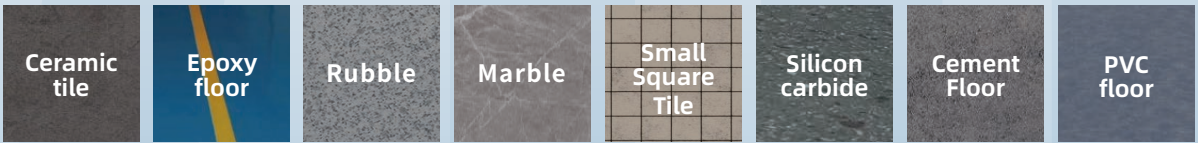
Scrubbing/sweeping/mopping

Small and medium-sized complicated indoor scenes

Sites



Floors



Product functions

- Intelligent identification**
With the obstacle avoidance identification module, the obstacle avoidance ability is stronger in complex working conditions and the safety is greatly improved.
- Adaptive cleaning**
Automatically adjustable roller brush, adaptable to various floors.
- All-in-one**
Either ground washing or dust mopping module can be selected. Three functions, sweeping, scrubbing and mopping, are optional.
- Fully automatic operation**
Automatically adjustable roller brush, Break Break point resuming, cleaning of missed areas, automatic water filling/drainage, automatic charging, access control and elevator linkage.
- Professional cleaning**
Double roller brushes+double side brushes, low risk of blocking the suction pipe, fully automatic during the operation process.
- Long-time operation**
24V/60Ah battery, 72L water tank, optional filtering.
- Edge cleaning**
Active roadside identification can truly achieve zero-distance edge cleaning.
- Hassle-free**
Scheduled tasks, automatic wake up, scheduled operations.

Product parameters

| | |
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| Dimension: 800(L)x700(W)x1200(H)mm | Net weight: 180kg |
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| Solution tank capacity: 42L | Recovery tank capacity: 30L |
| Trash can capacity: 1.5L | Sensors: LiDAR, ultrasonic radar, vision sensor, wheel speedometer, IMU, collision sensor and anti-fall sensor |
| Operating noise: ≤70dB(A) | |
| Max slope: ≤8° | |

WSC80&WSC50 VIGGO workstation

The workstation is an optional device(standard with charger) and serves to provide replenishment support to the vehicle, which can help lessen the frequency of manual intervention and boost HR efficiency.



Automatic docking



Automatic charging



Automatic water filling



Automatic draining

WSC80 Workstation



| | |
|-----------------------------------|-------------------------------|
| Dimension: 540(L)x420(W)x950(H)mm | Net weight: 43kg |
| Input voltage: 150~265VAC | Input current: ≤10A |
| Output voltage range: 8~44±0.4V | Max charging current: 40±0.5A |
| Water filling speed: 8~11L/min | Draining speed: 4~7L/min |

WSC50 Workstation



| | |
|------------------------------------|-------------------------------|
| Dimension: 530(L)x530(W)x1200(H)mm | Net weight: 46kg |
| Input voltage: 150~265VAC | Input current: ≤10A |
| Output voltage range: 8~30±0.4V | Max charging current: 50±0.5A |
| Water filling speed: 7~10L/min | Draining speed: 3~6L/min |

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VIGGO

Part of the landing cases

Industrial Sites

- Ningde Zhuogao
- GUOXUAN HIGH-TECH co., ltd
- Tianjin Great Wall Motor
- Chengdu Yongxiang Solar Energy
- Shanghai Baosteel Group
- WISCO
- Zhengzhou Foxconn
- Suzhou Luxshare



Transportation Hubs

- Wuhan Tianhe Airport
- Lanzhou Airport
- Yunnan Baoshan Airport
- Hefei South Railway Station
- Puyang East Station
- Zhengzhou East Station
- Shenzhen Qiaochengbei Subway Station
- A subway station in Xiamen



Commercial Complexes / Supermarkets / Hospitals / Office buildings

- Kaide Mall
- Chengdu IFS Shopping Mall
- Chongqing Raffles Shopping Mall
- Shanghai Fourth People's Hospital
- Chengdu Huaxi Hospital
- Wuhan Huoshenshan Hospital
- Beijing Jinshi Square
- Shanghai Chuangjing Science and Technology Center



Scenic spots / Parks

- Shougang Park of the Beijing Winter Olympics
- Beijing ice cube
- Temple of Heaven
- Beijing Botanical Garden
- Xi'an Great Tang Everbright City
- Wuzhen Design Park
- Zhuhai Changlong Ocean Park
- Xiongan China Communications Construction Future City



VIGGO

Partner



**VERTRIEBS- UND SERVICEPARTNER
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