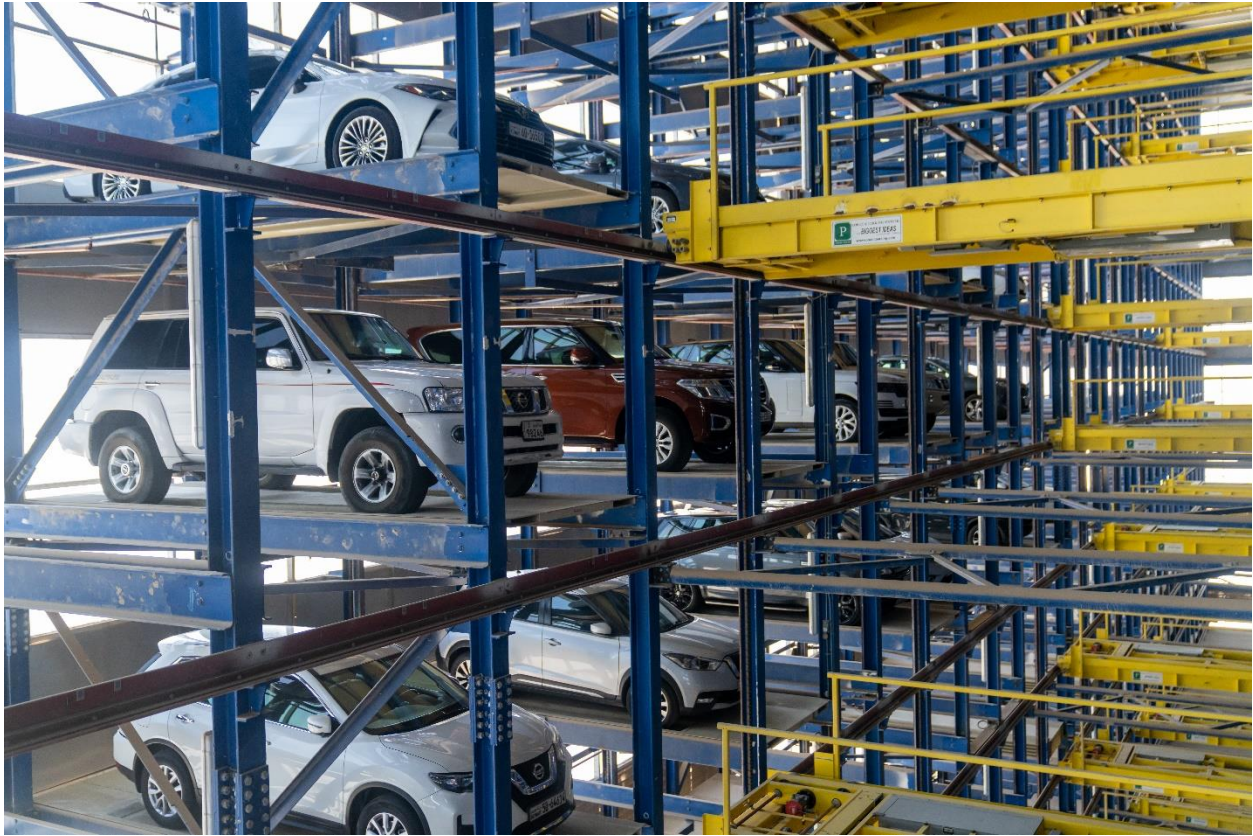


RPS 1000 FULLY AUTOMATED SYSTEM TECHNICAL SPECIFICATIONS



Car Specifications:

- Length: maximum 19 feet (5.8 meters)
- Width: maximum 7 feet 4 inches (2.23 meters)
- Height: 5 feet to 6 feet 9 inches (2.1m) for SUV's, larger heights can be accommodated upon request
- Car Weight: maximum 6,600 lbs. (3.0 Tons)
- Suitable for all sedans, SUVs, minivans and trucks within the dimensional range above.
- Custom solutions can be designed based on request.

Terminal (Entry / Exit Terminal):

- Swappable entry / exit on the fly based on live traffic.
- Spacious 4 feet (1.2 meters) wide platform on the left and right for patrons to exit the Terminal.
- ADA compliant Terminals can be provided as an option.

- Two high resolution cameras are installed to take pictures before storage and after the car is retrieved.
- Additional camera to record activity on the driveway for patron safety.
- Multiple scanners and laser sensor driver guidance system with a 42-inch display screen and an additional convex mirror. Terminals are equipped with safety sensors (to measure car boundaries), load cells (to measure car weight), motion detection devices (for safety), and guidance systems (for easily positioning the car on the pallet). Additionally, an emergency STOP button is located inside the Terminal and on the kiosk.
- Heartbeat detectors upon request

Transportation System Type: Steel Pallets:

- Steel pallets as a design feature ensure one of the highest standards of product liability protection for automated parking facilities. No machinery ever touches the car.
- Pallets prevent the dripping of any oil, acids, air-conditioning condensation, salt water, snow, ice, and sand onto cars from the parking system machinery or the cars stored inside the facility.
- Pallet Cleaning system can be provided as an option for regions with snow.

Garage Access Systems:

- Kiosks installed outside the Terminals allow users to initiate storage.
- Kiosks in the lobbies allow users to receive their cars and are equipped with contactless RFID cards, fobs, or an NFC (Near Field Communication) app.
- Custom-built phone apps are available and can be used to trigger the storage and retrieval process. The system can also be integrated with various payment options using either credit card or online transactions.
- Automated parking systems are intended to have a lobby that is equipped with user interface systems.

Transportation Machinery Specifications:

- Machine construction: steel frames
- In-house engineering and manufacturing. All machines are made in the USA.
- Machine mechanics: electromechanical only (NO hydraulic or pneumatics).
- Electrical drive: servo motor-based system.
- Electrical power: 3 Ph 400/480, 1 Ph: 220-240, 50 Hz/60 Hz. Support multiple voltages based on country specifics.
- Mechanical gearboxes: cycloidal gearbox (less wear and contactless gears for less maintenance and longer life). Helical bevel in lifting devices
- Programmable logical controller: General Electric PLC architecture with ladder logic.
- Machine working temperature: -20 Deg C to +60 Deg C (ambient garage temperature)

- Humidity up to 90%.
- Noise level on working machines measured in close proximity: less than 70 dB(a).
- Machine panels are NEMA 4/ IP-65 class protection.
- All machine parts are sourced from USA, Europe and Japan.

Software and Hardware:

- In-house software development under Cimplicity® / Tracker platform. This is a high-level software and communication system that is built to perform multiple movements on the X, Y, and Z axes simultaneously with real time graphical interface.
- In-house software development for GE PLC ladder logic, garage machine communication systems and garage access systems.
- The software offers sophisticated routing algorithms to increase peak traffic and diagnostics with pre-warning features to avoid down time.
- Hardware includes highly reliable Stratus servers with 99.999% uptime. Every piece of data (including garage configuration, location, and identity of every car, etc.) and every command are stored on two redundant servers in real time. If one server fails, the second, redundant server automatically takes over with no interruption of service (“hot swappable”).
- CCTV system with 24 x 7 video monitoring and video access for safety.

Approvals and Design Codes:

- Complies with NFPA-88a fire codes for automated parking systems.
- Conforms to NPA guidelines for automated parking design.
- Complies with IBC Special Industrial Occupancies.
- Electrical panels are UL/ETL certified.
- Complies to ISO 9000:2015 Quality Standard.
- System complies with ASME: B30.13 code.



Robotic Parking Systems, Inc.

