Specifications

Mechanism		Elevator (Rotating)	
Capacity		50 Vehicles (Standard Spec.)	
Operation Method		Card Reader (Accepts Magnetic Strip Cards)	
Average Vehicle Delivery Time		32 Sec.*	
Vehicle Measurement Requirements	Type M	Total Width	Max. 1900 mm
		Total Width + Side Mirrors	Max. 2150 mm
		Total Height	Max. 2000 mm
		Total Length	Max. 5000 mm
		Weight	Max. 2200 kg
	Type L	Total Width	Max. 2020 mm
		Total Width + Side Mirrors	Max. 2270 mm
		Total Height	Max. 2300 mm
		Total Length	Max. 5400 mm
		Weight	Max. 2500 kg

*For specification of M type, 50 vehicles I Depends on product specifications.

*Product specifications may change without notice.
*"ECO Park" is certified by Japan's new Ministry standards.

GIKEN Construction Solutions Company

www.giken.com

CONTACT US

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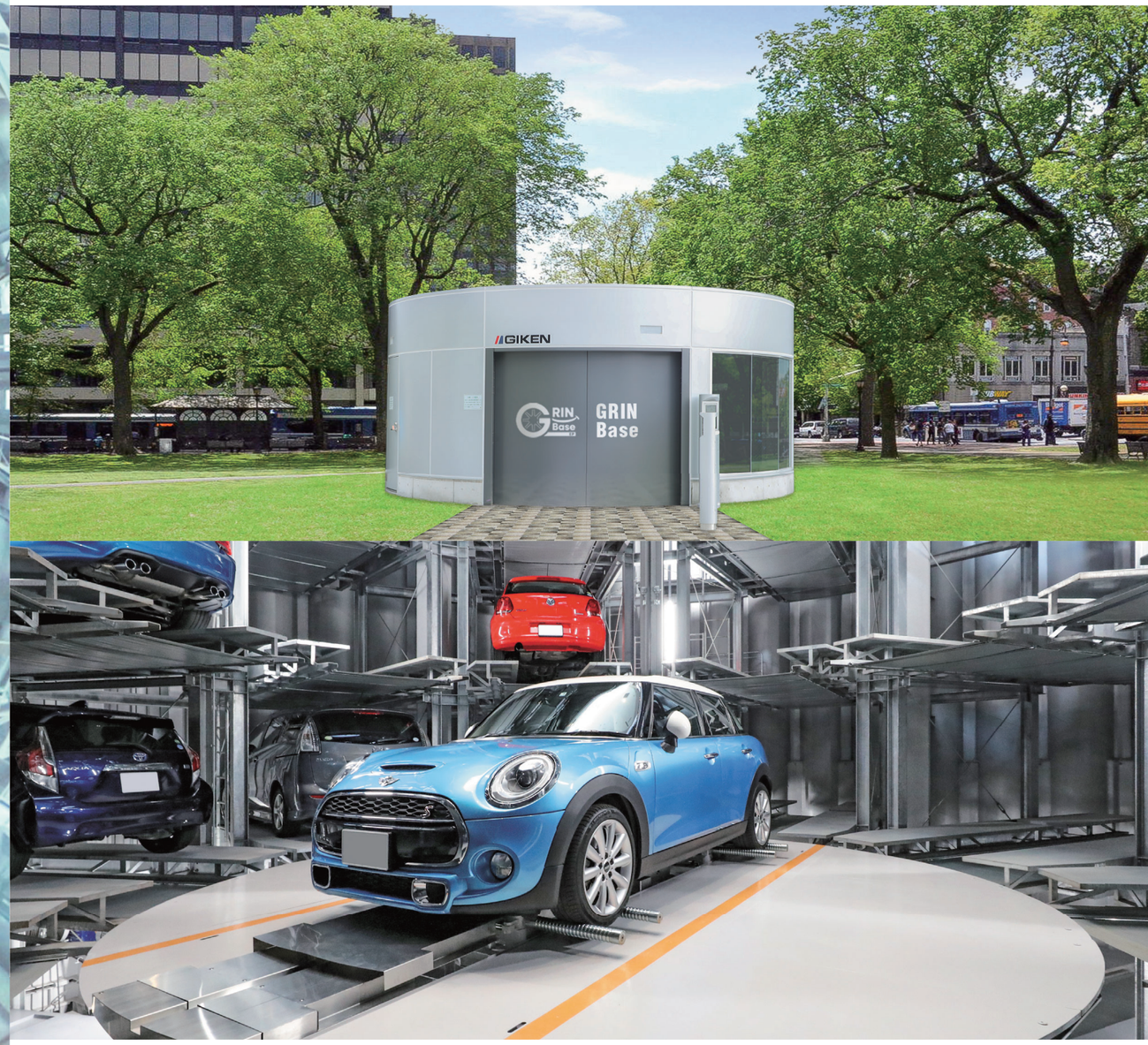
Automated Car Parking Facility

GRIN Base™ EP



GIKEN

Automated Car Parking Facility

GRIN Base™ EP

Culture Aboveground, Function Underground

GRIN Base EP is an automated car parking facility developed with the concept of "Culture Aboveground, Function Underground".
A parking capacity of over 50 cars per unit can be provided underground with a compact parking/retrieval booth on the ground. GRIN Base helps to add refinement to future urban development by accommodating parking functions underground and ensuring a minimal footprint aboveground.

You can watch a video of the GRIN Base.

Features

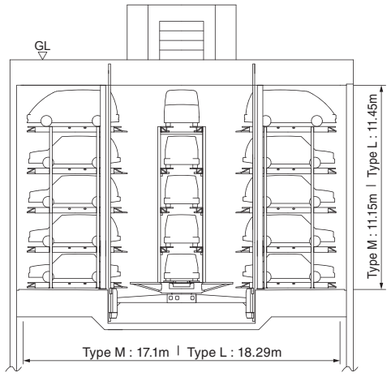
Safe, Environment-Friendly Design

GRIN Base offers a comfortable car parking environment that satisfies both the users and the community by providing easy operation, fast parking and retrieval, and a design that blends in with the surrounding environment.

Besides a seismic-proof robust structure, it features a safe and secure parking space free from rain and tampering.

Example of Parking/Retrieval Booth

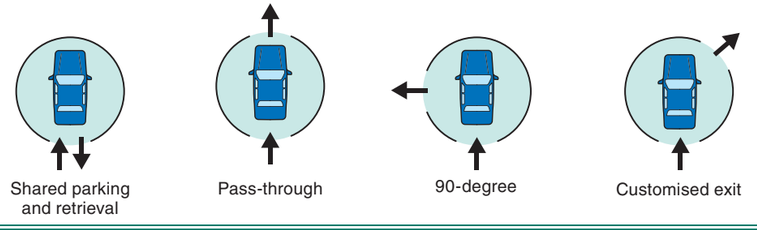
The extremely compact parking/retrieval booth minimises impact to the surrounding environment and allows the aboveground space to be effectively utilised.



Flexible Flow Line

The direction of parking and retrieval can be freely set to optimise the flow line according to the location conditions.

Examples of designs

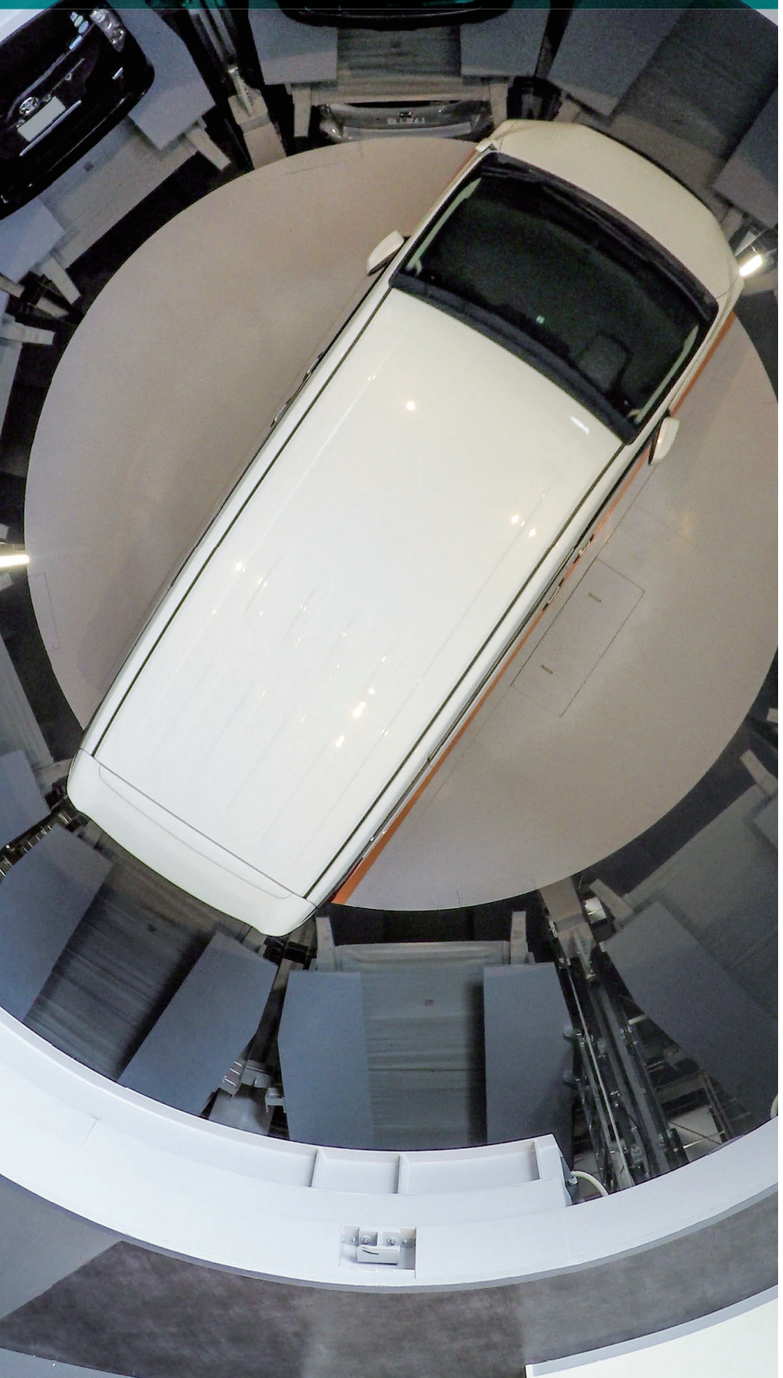


Speed

27-seconds retrieval

The fastest retrieval time is 27 seconds (average of 32 seconds), which is incredible. This performance ensures comfortable operation unaffected by congestion even during rush hours.

*Measured with the unit of M type, 50 vehicles specifications.
*Depends on product specifications.



Highly efficient parking/retrieval operation

Both parking and retrieval can be handled without the hassle of backing up. In addition, vehicles are stored in a radial pattern to improve transfer efficiency and realise amazingly rapid parking and retrieval.

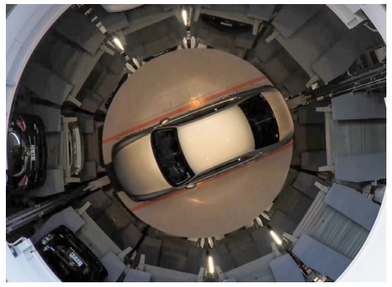
Parking

Move the vehicle forward into the parking and retrieval booth and place or insert the parking card at the operation panel outside the booth to commence storage.

1 Take the parking card and move the vehicle forward to enter.

2 Check for safety and start the parking operation.

3 The vehicle will be stored automatically.



Retrieval

Place or insert the parking card and start the retrieval operation.
Move the vehicle forward to exit the booth.

1 Place or insert the parking card and start the retrieval operation.

2 The vehicle will be retrieved automatically.

3 Move the vehicle forward and complete the retrieval.

Card reading options

IC Card

Contactless IC cards can be used repeatedly.

Magnetic Strip Card

Magnetic stripe cards, which are commonly used in hourly parking lots, can also be used.

Vehicle Types

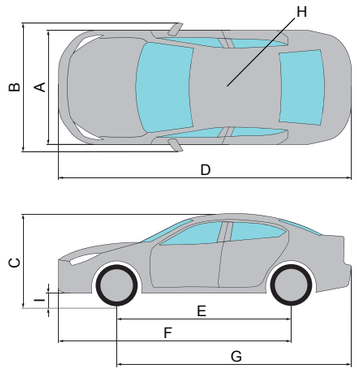
GRIN Base adopts various technologies to accommodate most of the passenger vehicles on the market. It also can accommodate a wide variety of vehicles including vans, wagons, and SUVs that are becoming popular in recent years.

Sedans/Coupes

Vans

SUVs

Sports Cars

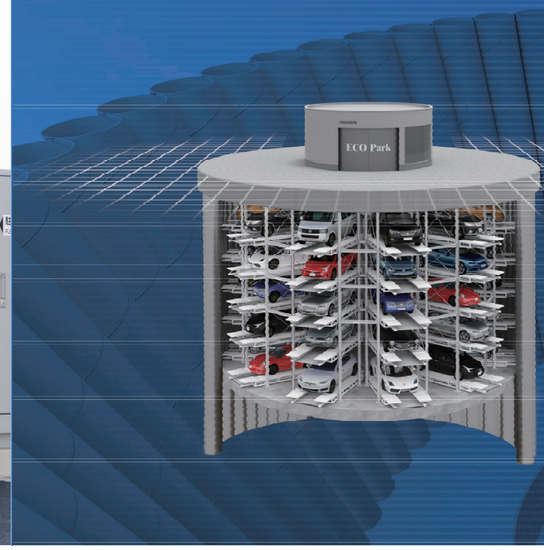


Type M	A. Total Width		Max. 1900 mm
	B. Total Width + Side Mirrors		Max. 2150 mm
	C. Total Height		Max. 2000 mm
	D. Total Length		Max. 5000 mm
	E. Wheelbase	Min. 1810 mm	Max. 3100 mm
	F. Front Bumper to Rear Axle		Max. 3995 mm
	G. Rear Bumper to Front Axle		Max. 4105 mm
	H. Weight		Max. 2200 kg
	I. Minimum Body Height from Ground		Min. 80 mm
Type L	A. Total Width		Max. 2020 mm
	B. Total Width + Side Mirrors		Max. 2270 mm
	C. Total Height		Max. 2300 mm
	D. Total Length		Max. 5400 mm
	E. Wheelbase	Min. 1810 mm	Max. 3250 mm
	F. Front Bumper to Rear Axle		Max. 4300 mm
	G. Rear Bumper to Front Axle		Max. 4400 mm
	H. Weight		Max. 2500 kg
	I. Minimum Body Height from Ground		Min. 80 mm

Safety

High Design Safety

Equipped with a full range of safety systems including various types of sensors and a camera that monitors the inside of the parking/retrieval booth.



Ecology

Design and Construction Concept

The Press-in Method, an original construction technology of GIKEN, minimises the construction period, space, noise, and vibration. The frame structure is designed for easy removal after use.

Guidance Display (Above Entry Door)

Entry Detection Sensor

Monitor

Motion Detector (Inside Booth)

Earthquake Detection Sensors (Underground)

Guidance Display — Displays guidance and information to assist the operation.

Entry Detection Sensor — Detects passage of people and vehicles into/out of the booth for proper use.

Monitor — The camera shows the entire inside of the parking/retrieval booth, allowing the operator to monitor the parking/retrieval operation in real time.

Motion Detector — The operation will be halted until the sensor detects that people have exited the booth.

Earthquake Detection Sensors — An earthquake exceeding 100 gals will trigger an automatic halt to protect the vehicle.

Short Construction Period

The simple construction process by the Press-in Method allows for completion of one unit in as short as four months.

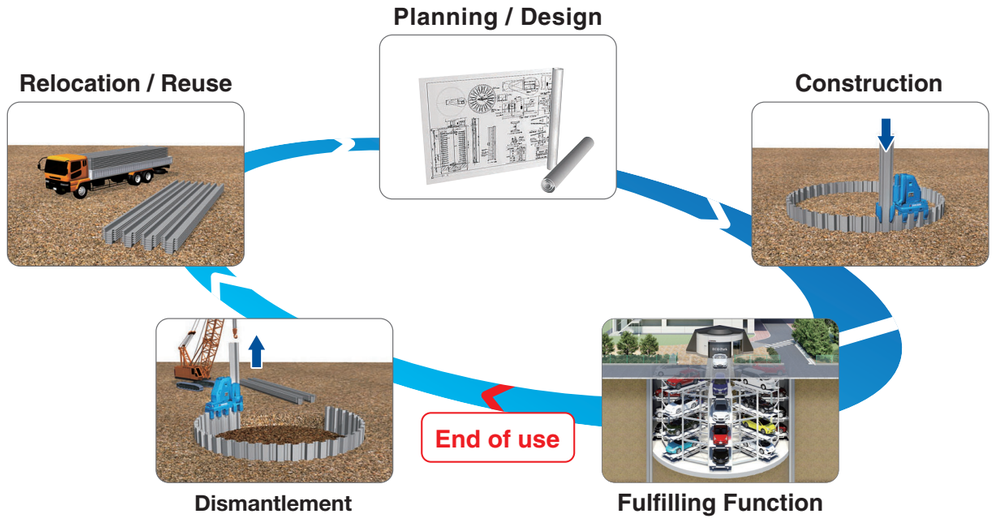
Space-saving Construction

Systematised and compact machinery enables space-saving construction. This minimises the need to regulate traffic and the impact on the surrounding environment, allowing cost-efficient construction.

Noise and Vibration-free Construction

No harmful vibration or noise will be generated during the installation of the structure, allowing construction to be carried out in densely populated areas without disturbing the daily living environment.

Functional Structure™ - Easy to relocate / reuse



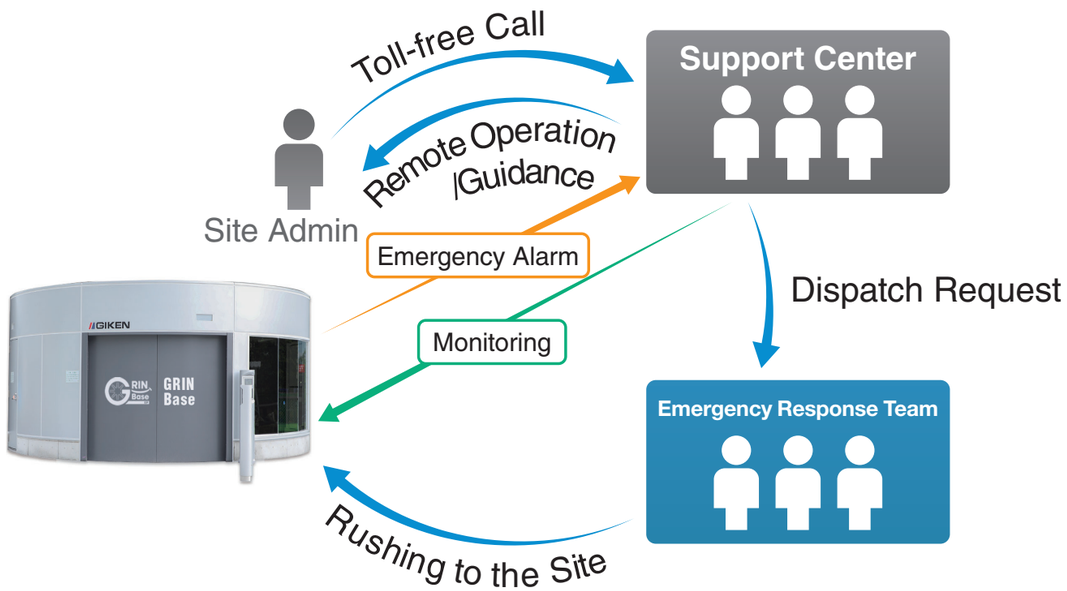
"The Right Function for the Right Time."
GRIN Base is designed with a "Functional Structure" considering up to the dismantling and removal phase when bicycle parking is no longer needed in the area. It can be easily removed, and its location can be restored to its original state by following the installation process in reverse order. The materials removed can also be reused, contributing greatly to a sustainable society.

Support

Reliable Customer Support

Our Support System

In case of any malfunction within Japan, the emergency alarm will notify our support centre and operations can be restored remotely. Technical personnel will be dispatched promptly in case remote restoration is not possible.



Real-time Monitoring

Cameras installed on GRIN Base allow the situation to be monitored 24 hours a day, providing a prompt and accurate response in the event of a problem.

*Customer Support in international markets to be developed and agreed on a contract specific basis.

Contact

GIKEN Group Companies

- GIKEN SEKO CO., LTD.
- Giken Europe B.V.
- Giken America Corporation
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