

HANKOOK

Automated Car Parking System

SOLUTION PROVIDER

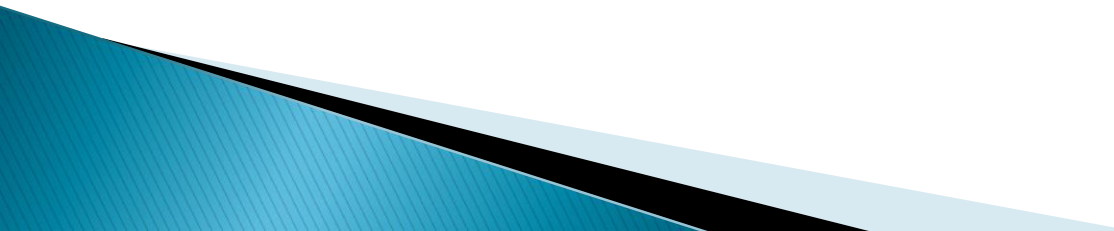
1. Hybrid Parking

2. Fork Tower Parking

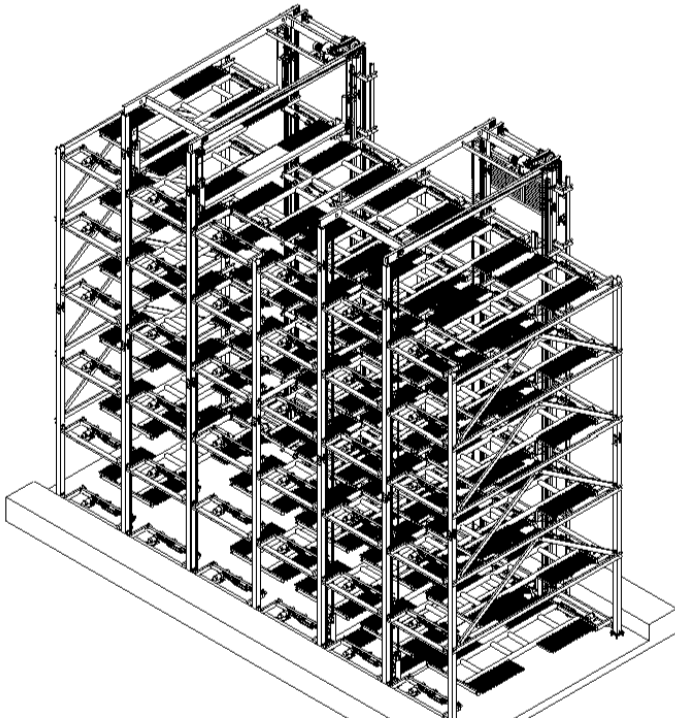
3. AGV (Automated Guide Vehicle)

HYBRID PARKING #1

****Features :** on the combination of Puzzle and Lift system

- 1. Operating up to 15 Levels in yard / 25 Levels in built-in**
 - 2. More than 50% faster on retrieval time**
 - 3. No wire rope for safety reason**
 - 4. Simpler structure (Easy Maintenance)**
 - 5. Less entry required. Alternative drive way**
 - 6. Fork Type (Speed, Safety, Maintenance)**
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HYBRID PARKING #2

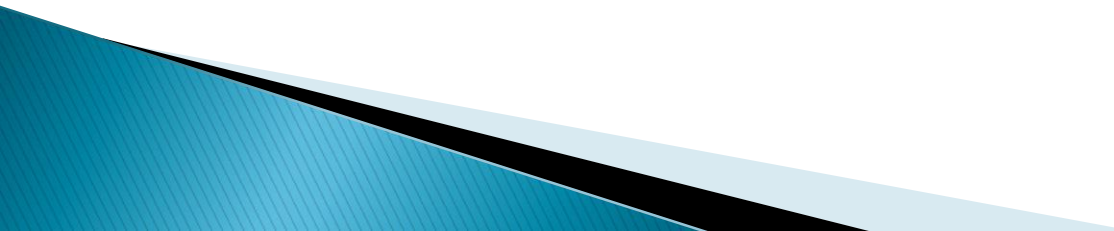


MODEL	HK-HYBRID-00		
Car Size	Length	Sedan	5000mm
	Width		2000mm
	Height		1600mm
	Weight		2500kg
	Length	SUV	5200mm
	Width		2000mm
	Height		2000mm
	Weight		2500kg
Exterior Dimensions	Clear Length		
	Clear Width		
	Clear Height		
Drive Method	Electric Motor System (Geared Motor)		
Operating Method	Touch Screen		
Power Supply	AC 380 x 4P x 50Hz		
Motor Capacity	5.5KW(25KW) x 4P - 1/30		
	0.2KW x 4P x 50Hz - 1/90		
Lifting Speed	9~10m/min, 58m/min		
Lather Speed	6~9m/min		
Rotating Speed	1~4minutes		
Pallet Size	5050 x 2000		

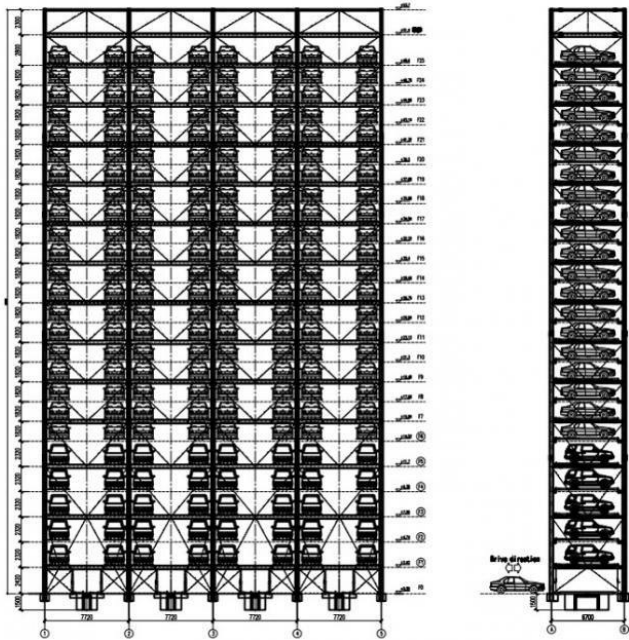
HYBRID PARKING #3

Hybrid Parking Advantages over Conventional Puzzle Parking		
	COVENTIONAL Puzzle	HANKOOK Hybrid
1	Operating Maximum 7~8 Level	Operating up to 15 Levels / 25 Levels
2	Taking 6 minutes for retrieval time	More than 50% faster on retrieval time (Approx 4 Mins for 15~25 Levels)
3	Need all entries or not able to park the cars in the concern bay. All Car Park drive way required at ground level	Less Entry required. Entry option. Drive way is required with alternate drive way, column in between can be given same parking numbers without any loss
4	Using Wire rope (with drum type)	No wire rope for safety reason. Fully Motorized with chain/ rope and counter weight system.
5	2.2KW and 0.4KW motor per palette are required.	Simpler structure system(Easy maintenance) for less breakdown and less maintenance time.
6	2 Motors required per pallet for Horizontal & Vertical Movements. Wire Rope hanging with Break Motor on each trolley	Only 1 Motor for Vertical movement. Lift one motor for All 15~25 Levels Pallet with Break motor. Car falling due to motor failure is not there
7	Coventional (Heavy) Palette	Fork type palette and tray (Speed, Space Saving)
8	All Above Ground Pallets hanged with Wire Rope & Trolley arrangement. Need to adjust Wire Rope periodically, Trolley limit switch dependency	Wire Rope & Trolley not required. Racking arrangement makes it safe for each vehicle parked
9	Limit switch application every operation required. Break down mostly due to Limit switch malfunction	No Limit switch required as no Trolley is there (using proximity sensor). Less Break down
10	Less Safety System	Safety Device: Vehicle detection system, Chain breakaway detection system, Weight speed detection system, Motor load detection system, Photo sensor, Emergency switch

FORK TOWER PARKING #1

- ▶ Tower Parking on the combination of Chain/Rope with Lift System on Fork type
 - ▶ Our direct drive system benefit (vs. Indirect drive system) : Improves motor efficiency, reduces parts replacement cycle, improves parking accuracy, and reduces component loss.
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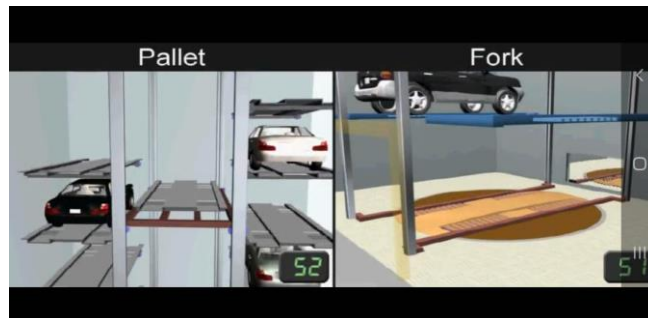
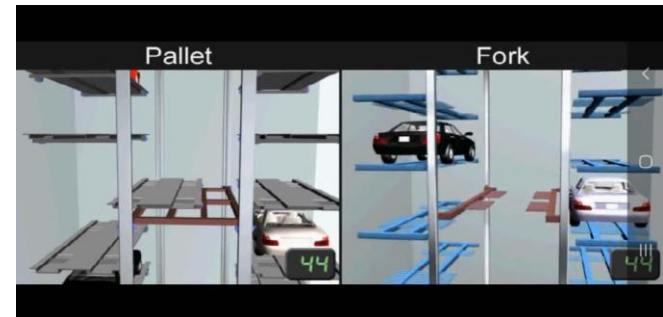
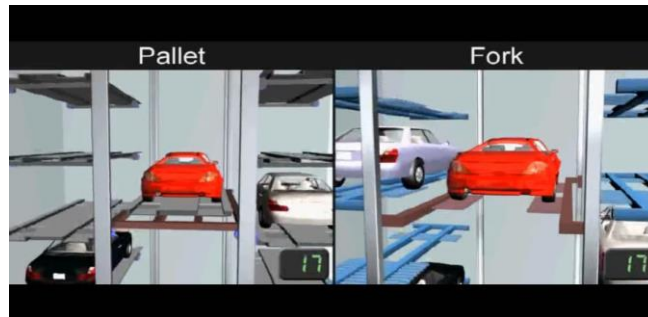
FORK TOWER PARKING #2



MODEL	HW-TOWER-00		
Car Size	Length	Sedan	5000mm
	Width		2000mm
	Height		1600mm
	Weight		2500kg
	Length	SUV	5200mm
	Width		2000mm
	Height		2000mm
	Weight		2500kg
Exterior Dimensions	Clear Length		
	Clear Width		
	Clear Height		
Drive Method	Electric Motor System (Geared Motor)		
Operating Method	Touch Screen		
Power Supply	AC 380 x 4P x 50Hz		
Motor Capacity	7.5KW(25KW) x 4P - 1/30		
	0.2KW x 4P x 50Hz - 1/90		
Lifting Speed	9~10m/min, 58m/min		
Lather Speed	6~9m/min		
Rotating Speed	1~4minutes		
Pallet Size	5400 x 2000		

FORK TOWER PARKING #3

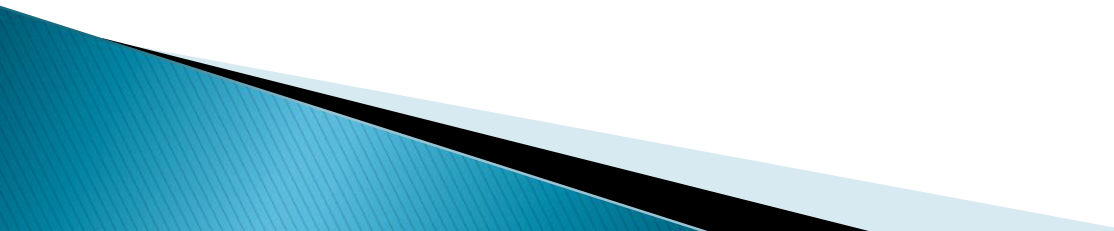
Conventional Pallet VS Fork Pallet



Safety, Speed, Maintenance,
Simple Retrieval Process

SUMMARY

Why HanKook?

1. Cutting Edge Technology with simpler structure with full safety
 2. Less breakdown and Less repair & maintenance time
 3. Faster retrieval time
 4. Longer durability
 5. Competitive offer in overall project
 6. All components are purchased in India and our new design (version. 2024) is adapted to India environment.
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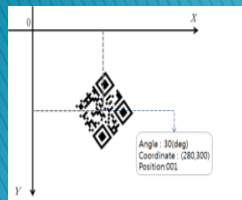
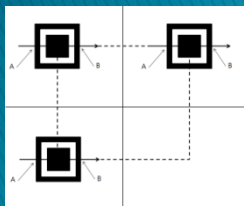


Why do we need Smart Parking Robot System?



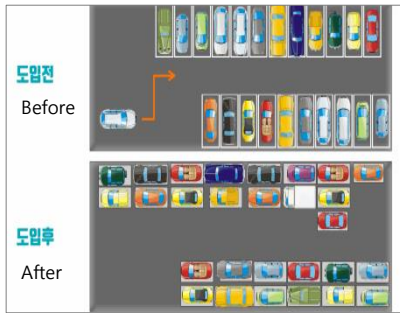
AGV is a New Luxury Creation of Future Car Parking Solution to avoid all the trouble of Mechanical Car Parking System

Our smart parking robot system is the first R&D and commercialized system in Korea and has been recognized for its technology in QR code-based autonomous driving technology, motor driving technology, sensor technology, and robot control system.



System Features

More parking spaces



Over 30% parking pace up

Convenient



Robot valet parking system

Safe



No accident for unmanned

Eco-Friendly



No idle for eco-friendly parking lot

Anti-theft



No idle in parking lot

Cost reduced



No construction and manpower cost

Easy to extend



Easy to change the lay out

Fast parking / retrieval



Fast parking and exit

Types of Parking Robot



Pallet type _ MP3P-3000

It is a pallet-type parking robot system in which robots lift vehicles parked on the pallet to find empty spaces and move autonomously.



Palletless type _ MPL3-3000

It is a parking robot that enters the bottom of the vehicle without the need for a pallet and lifts the vehicle, and is more advanced than a pallet-type parking robot with state-of-the-art sensor technology and autonomous movement technology.

THANK YOU

HanKook Industries Pvt. Ltd.

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