

JAPANESE STANDARD SAFETY EQUIPMENT

Safety in power off

Machines stop by activating electric motor's brake as power is cut off, such as blackout.

Pallet misalignment detection devices

Pallets stop once they pass by the fixed position.

Interlock of operation

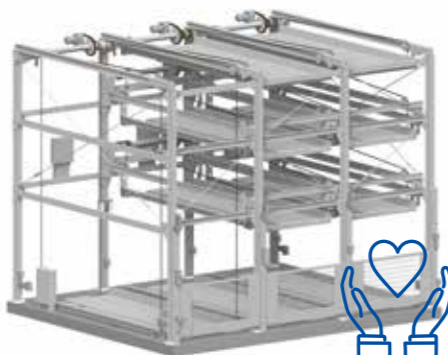
The parking system does not work unless the front gate is closed, and the front gate does not open unless the pallets get in position.

Operation verification function

You enter "Verification Number" given by individual pallet on the operation panel when getting the pallet in/out and when closing the front gate after parking your car in/out. It prevents other users from operating accidentally while you are using.

Unmanned confirmation input devices

You press the button when you confirm no humans remain in the parking system. It does not restart operating unless you press the button.



Emergency stop button

Operation stops by pressing the button on the operation panel.

Sensors

They are located inside and outside of the parking system and detect humans intruding to or remaining in the system. Operation immediately stops as soon as they react.

Pallet receivers

They catch pallets in case of chains break off when the ascent/descent pallets are in the original ascended positions.

Rear confirmation mirrors

It assists you check the back of the machine where your view is blocked by parked cars.

Front gates (for each row)

It avoids humans entering the parking system while not operating. Also, because only single gate in front of the retrieved car opens, it prevents non-users from intruding and prevent users from parking in a wrong space.

TPJ

GROUND 3-5 LEVEL (PUZZLE TYPE) PARKING SYSTEM



TPJ4



TPJ3



TPJ5

CAR RETRIEVAL PROCESS (In case of 3 rows,TPJ4)

1 : YOUR CAR

1		3
4		5
6	▲	7
8	2	9

1	2	3
4	▶	5
6	▶	7
8	▶	9

1	2	3
▼	4	5
	6	7
	8	9

	2	3
	4	5
	6	7
1	8	9

1. [2] goes up to the top

2. [4][6][8] move to the right at the same time

3. Your car [1] goes down to ground level, and front gate opens

4. Close front gate after getting your car out

PRODUCT SELLER

ShinMaywa Parking Technologies, Ltd.

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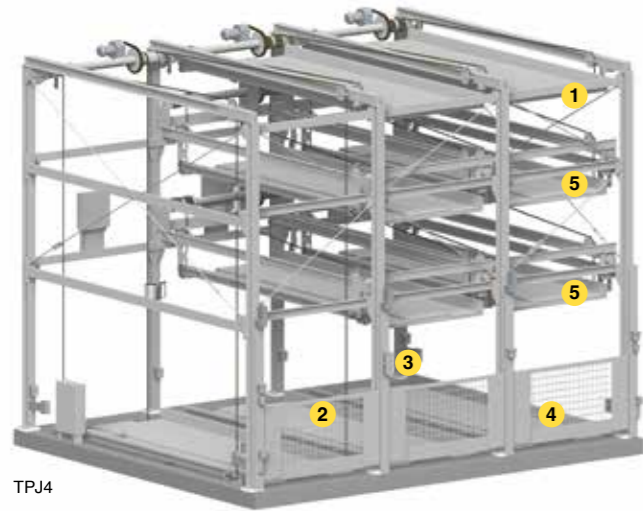
AGENCY

• The illustrations on this brochure includes options.
• The contents are subject to change without notice due to continual improvements.

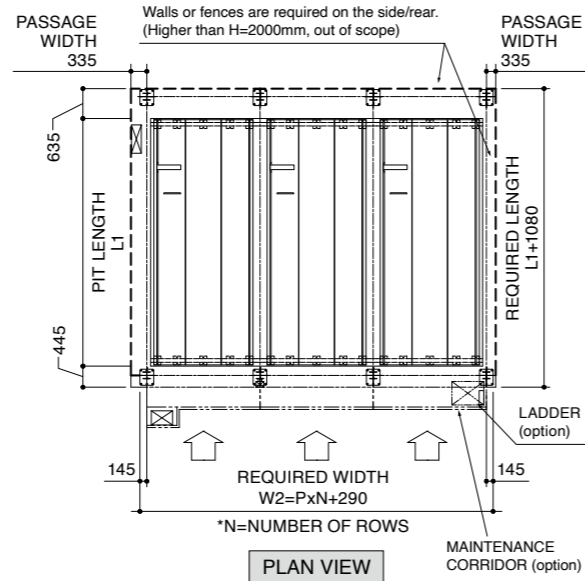


TPJ

GROUND 3 to 5-LEVEL (PUZZLE TYPE) PARKING SYSTEM



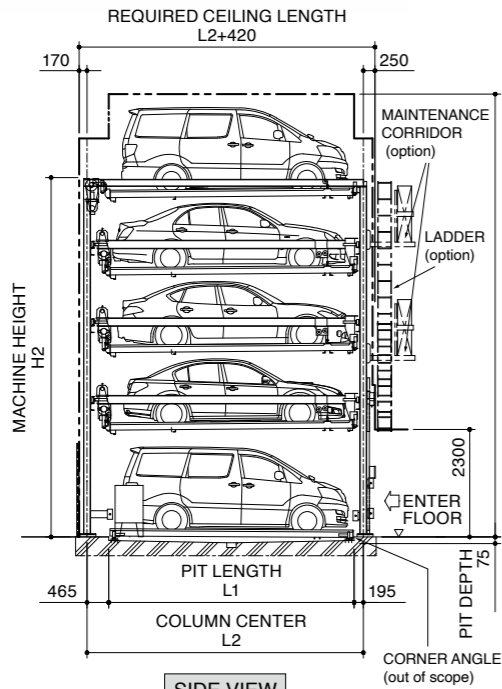
TPJ4



PLAN VIEW

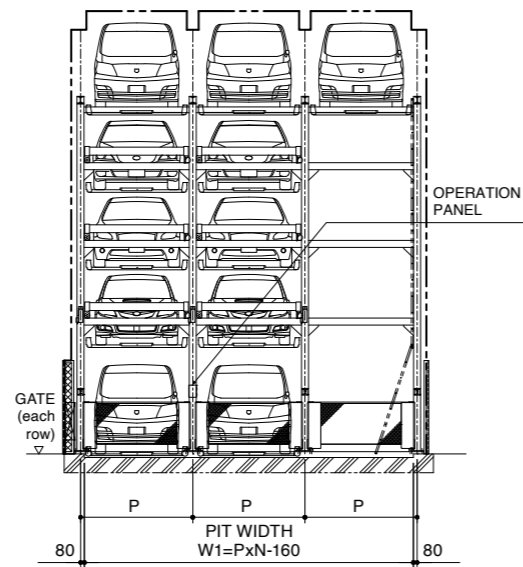
- 1 Top pallet(Ascent/Descent)
- 2 Front gate for each row
- 3 Operation panel
- 4 Ground pallet(Traverse)
- 5 Middle pallet

*Available number of rows
 3 and 4-level: 2 to 8
 5-level : 2 to 7
 Machines on this page have 3 rows

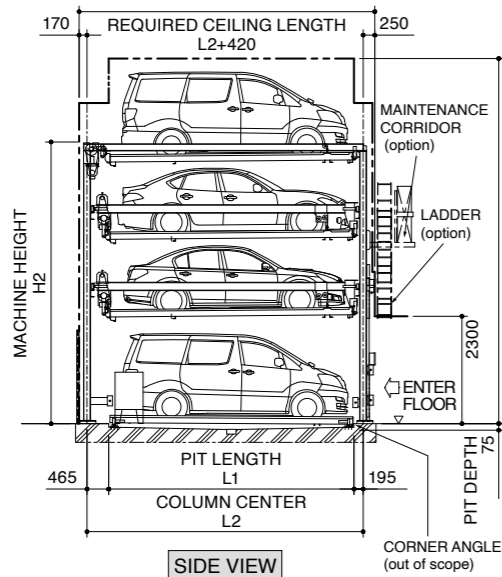


SIDE VIEW

TPJ5(Foundation with a pit)

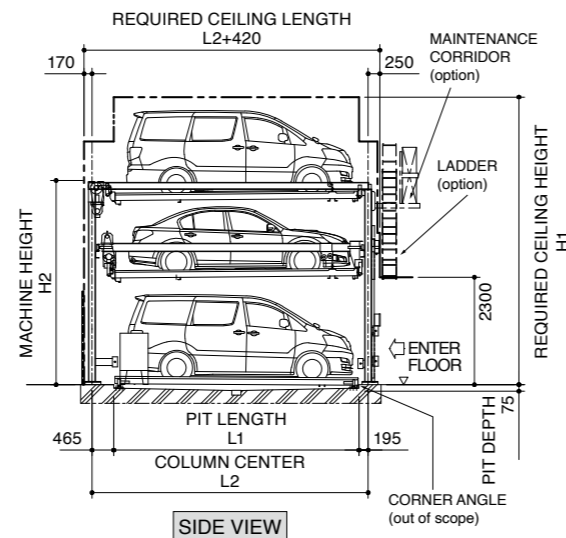


FRONT VIEW



SIDE VIEW

TPJ4(Foundation with a pit)



SIDE VIEW

TPJ3(Foundation with a pit)

CAR SIZES/DIMENSIONS

TABLE1 (WIDTH, LENGTH)

(mm)

PRODUCT NAME	5-LEVEL	TPJ5			
	4-LEVEL	TPJ4			
	3-LEVEL	TPJ3			
SYSTEM		GROUND 3 to 5-LEVEL (PUZZLE TYPE)			
MODEL (REFER TO TABLE 2 FOR *)		EM * K	LM * K	GS * K	
CAR SIZES	CAR TYPE	SMALL VEHICLE	MEDIUM VEHICLE	LARGE VEHICLE	
	LENGTH	4850	5050	5300	
	WIDTH	1850	1850	1950	
	WEIGHT(kg)	2200	2200	2300	
PITCH: P		2400	2400	2500	
REQUIRED WIDTH: W2		P x N + 290			
COLUMN CENTER: L2		5710	5910	6160	
PIT WIDTH: W1(only for a pit)		P x N -160			
PIT LENGTH: L1(only for a pit)		5050	5250	5500	
OPERATION SYSTEM		LIQUID CRYSTAL PANEL			
ASCENT/DESCENT SYSTEM	DRIVE SYSTEM	ELECTROMOTION (with roller chain drive)			
	MOTOR	2.2kW BRAKE MOTER 3-PHASE AC 200/220V (50/60Hz)			
TRAVERSE SYSTEM	DRIVE SYSTEM	ELECTROMOTION (with roller chain drive)			
	MOTOR	0.2kW BRAKE MOTER 3-PHASE AC 200/220V (50/60Hz)			

TABLE2 (HEIGHT)

(mm)

MODEL (REFER TO TABLE 1 FOR **)	** CK	** AK	** HK	** NK	** 70KZ	** 00K	** 80K	
				Only for TPJ4 and TPJ3	Only for TPJ5			
CAR HEIGHT	TOP LEVEL		1550	2100	2100	2000	2100	2100
	MIDDLE LEVEL	4-LEVEL	1550	1550	1850	1850	2000	1800
		3-LEVEL	1550	1550	2100	1550	1700	1550
	GROUND LEVEL	2-LEVEL	1550	1550	2100	1550	1550	1800
WITH PIT		1750	2100	2100	2000	2000	1950	
				1950	1950	1900		
REQUIRED CEILING HEIGHT: H1	TPJ5	8675	9475	9775				
	TPJ4	7015	7815					
	TPJ3	5355	6155					
MACHINE HEIGHT: H2	TPJ5	7440	7690	7990				
	TPJ4	5780	6030					
	TPJ3	4120	4370					

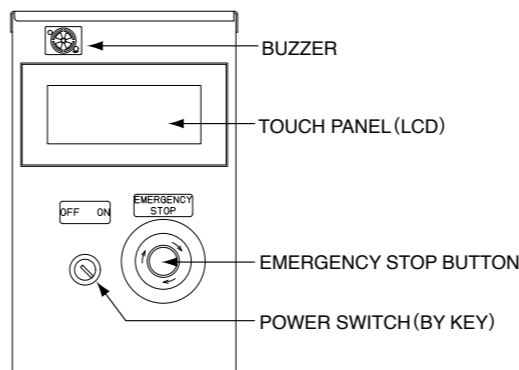
• Reverse parking only. • Other dimensions are available on request. • Car with low ground clearance under door cannot be accommodated.

Exclusion scope of work :

1. Foundation work, concrete work, anchoring work, drainage work, construction of car road for parking system
2. Power supply, down transformer (380→200V), power line connection and illumination work for parking system
3. Firefighting facilities
4. Construction of safety fences or walls around parking system
5. Acquisition of government licenses and licenses related to any projects, etc.

OPERATION PANEL

HOW TO USE: Put key in power switch and operate with touch panel



RUSTPROOF SPECIFICATION

[FOR PALLETS]

- Hot-dip galvanized steel plate & paint coating
- Hot-dip galvanizing

[FOR FRAMES]

- Hot-dip galvanizing

STANDARD PAINT COLOR



Light gray

*For paint coated pallets
 *Actual color may slightly vary from the products.