

Electromotive **Hot & Cold** Meal Trolley For Hospital Use

We promise to keep our patients happy





정무산업에너지산업



상상인용 K마크



GOOD DESIGN



Customer Satisfaction



Since Myungse CMK Co., Ltd. was established in 1994, it has focused on developing high quality meal service trolley.

Myungse CMK's know-how accumulated innovative technology in the hospital distribution system will enhance patients' satisfaction. As consuming proper meals can maintain healthy life, the importance of meal trolley is growing day by day.






Myungse CMK professionally diagnoses customer needs and endeavors to provide beyond meal delivery service trolley.



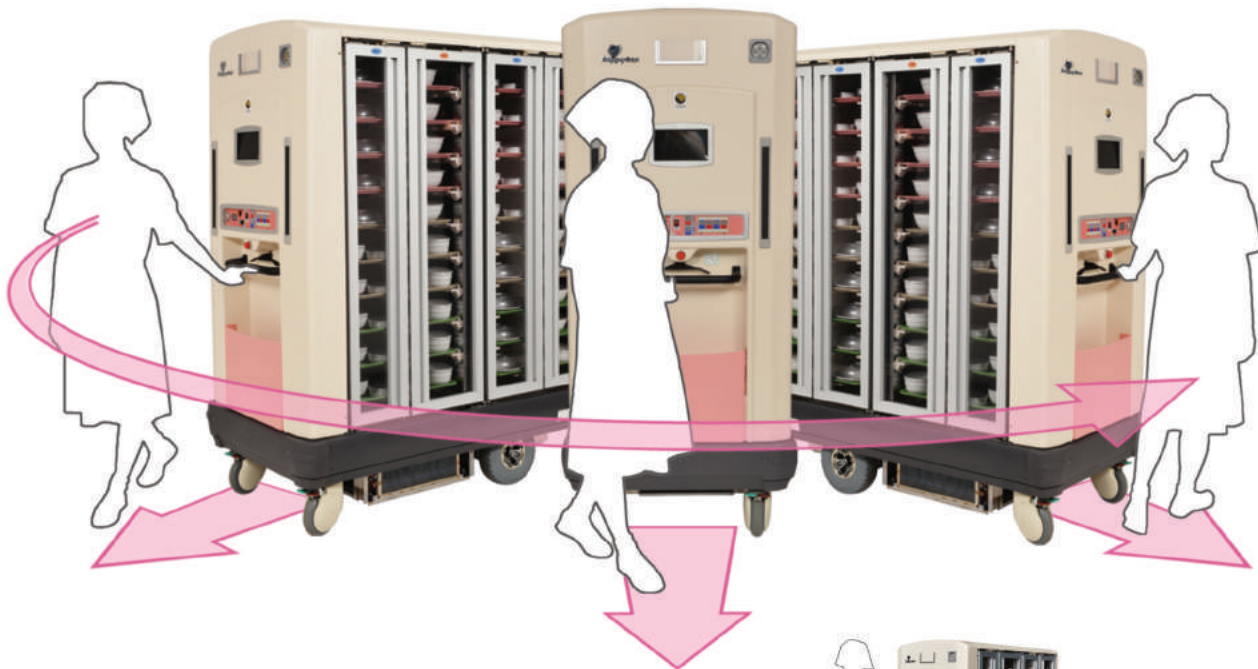


Happy cart enhances customers' satisfaction by providing fresh food to patients with its electromotive hot and cold system.

Myungse CMK Co., Ltd. is a leading manufacturer of meal delivery service trolley system in hospitals observing 6 principles.

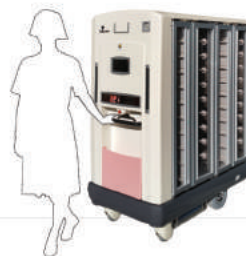
- 
R&D Continuous research and development with aggressive R&D investment for long-term successful business
- 
Tailor-made solution Tailor-made solution provided for customer preference
- 
Systematic inspection Practical and systematic inspection for quality assurance before shipping
- 
Customer care Thorough customer management
- 
First mover in Korea First mover and market leader in domestic market
- 
World best product Aiming for the world's best for meal delivery system served to inpatients in hospitals

Innovative Electromotive Driving System



General driving

By slightly pushing the lever, the fully loaded trolley can be moved easily. It is safe to drive with slow start and slow stop functions.



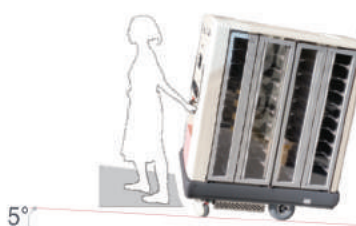
Backward driving

Pushing the reverse lever, the trolley can be driven backward. Backward driving generates melody to alert people. Through the camera on the rear body, users can see the rear view on the front monitor in real-time.



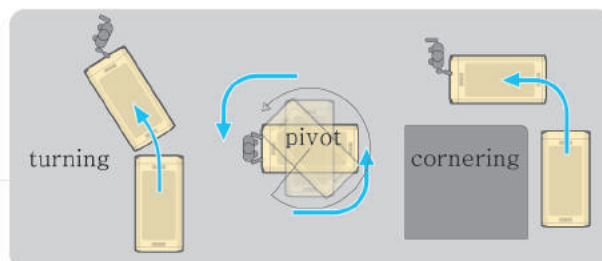
Driving on the inclined place

Without significant effort, women can drive the trolley on the incline of 5 degrees easily. On the incline, the speed is controlled automatically to maintain constant speed.



Free curve driving

With the central axis of motor wheels, front free wheels are possible for driving of pivot and turning.



Battery charging

It operates for an hour electromotive driving after charging 6-8 hours. This charging is also for keeping heating and cooling systems. When fully charged, power suppression unit automatically stops its overcharging. (Charging hours can be varied according to user environments.)



Convenience



Magnetic power plug

The plug is easily attached or detached.

Convenient central control panel



Simple operating lever

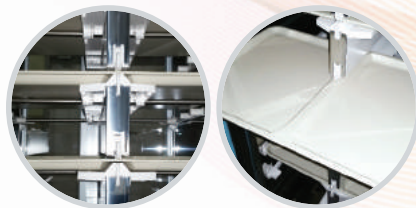


Rounded corner for easy cleaning

Preventing stains and spread of bacteria



Manual converted lever

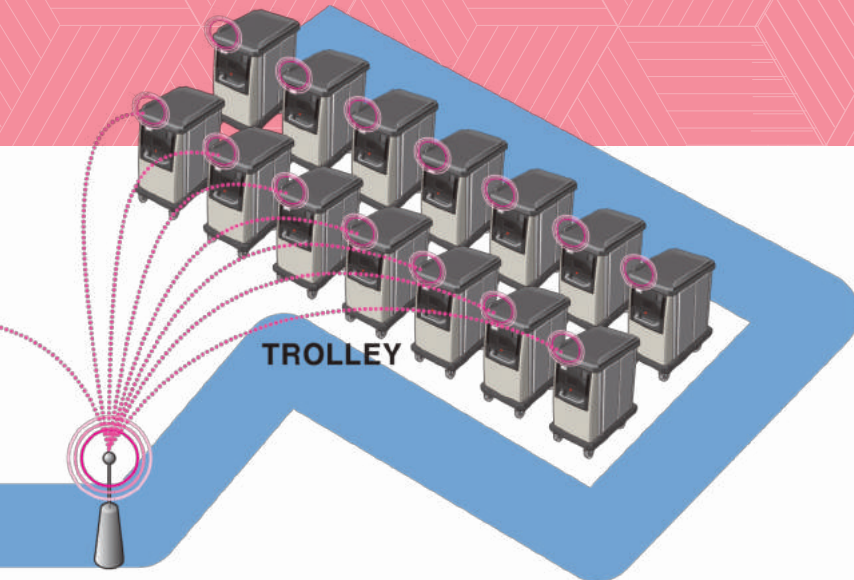


Tray-passing holder

Enhancing efficiency of repeated meal distributing process



For Always Fresh Meals



AP

Wifi wireless integrated control system (Option)

(US Patent No.: US 9,114,818 B2)

Through wifi system, multiple trolleys are controlled from the local server regarding settings of temperatures, electromotive driving mode, timer, etc.



Safety



Front monitor & Rear camera (Option)

Securing rear view through LCD monitor, and preventing safety accidents



One-touch door locking system (Option)

Locking all doors, simultaneously, preventing patients' meals from the third party

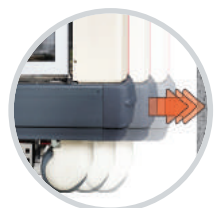


Emergency stop button & Front touch sensor (Option)

In emergency, the trolley can be controlled with the button and the touch sensor.



Wheels for safe driving

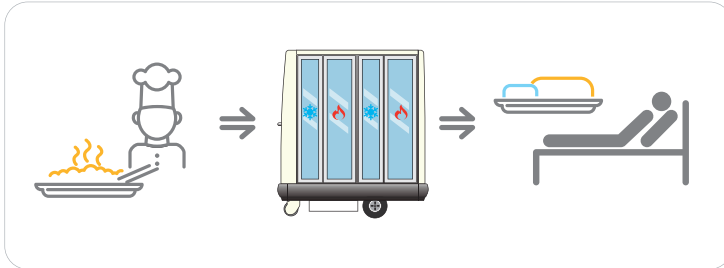


Shock-absorbing urethane bumper



Differentiated Temperature Controlling Technology

H&C meal distribution service process



With differentiated temperature controlling technology, Happy Cart can provide fresh meals for patients.

HOSPITAL

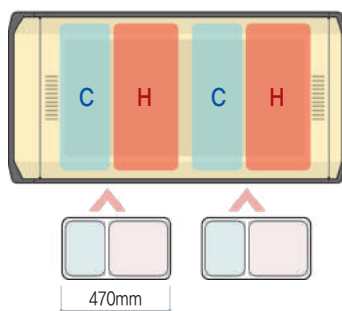
H&C temperature management



Setting temperatures are remembered in the system until the following setting change. Current room temperatures are shown on the screen.

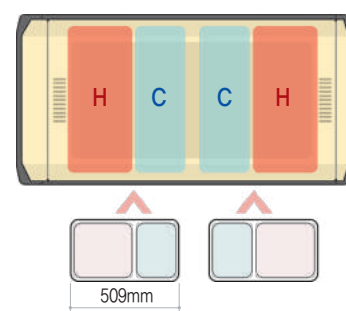
H&C arrangement on trolley

General type (Tray 470)



With C-H-C-H arrangement, Tray 470 is inserted in the same direction from all doors, efficiently.

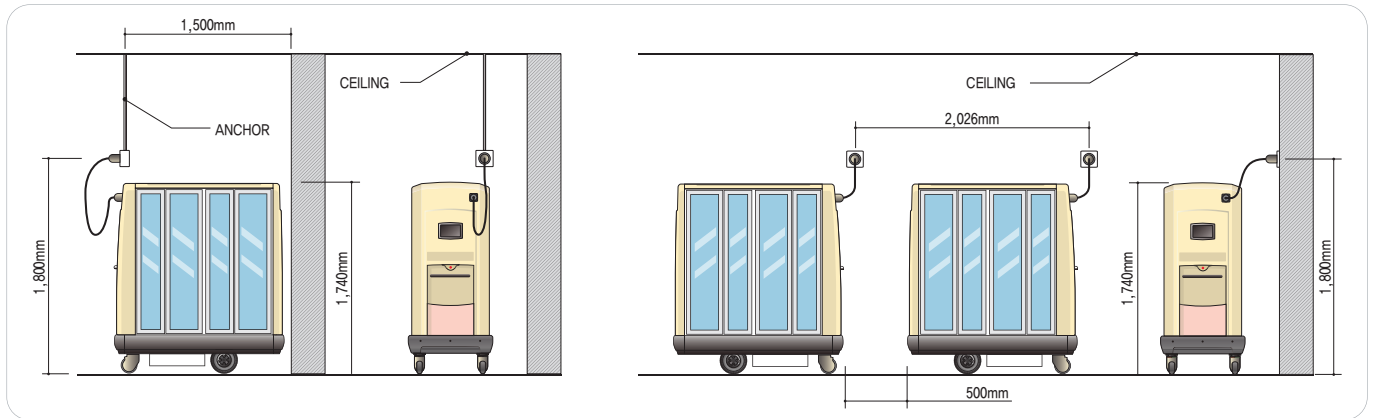
Exporting type (Tray 509)



With H-C-C-H arrangement, size of tray becomes wider as Tray 509.

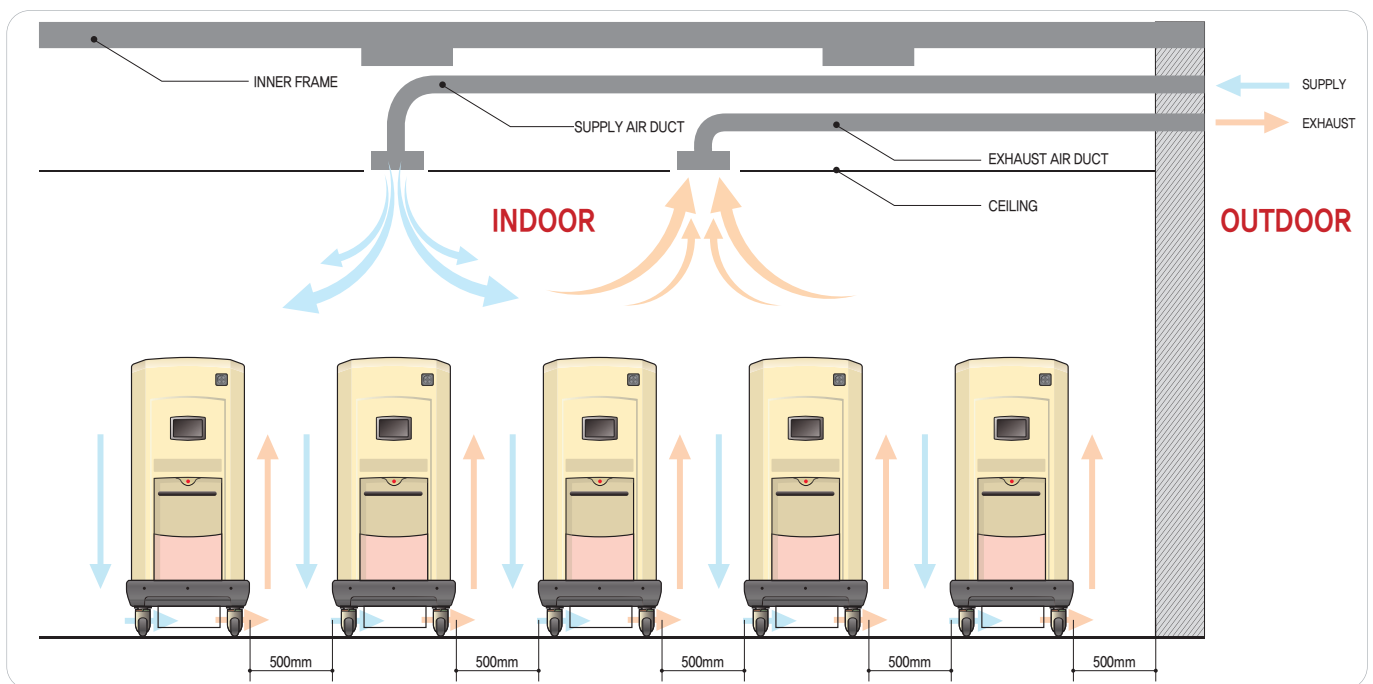
Requirements and Recommendations in Pre-installation

Example of installing power socket



- | According to the user's environment, power sockets for trolleys can be installed on the wall or on the anchor connected from the ceiling.
- | Insert the power plug into a dedicated power socket, and maintain as much space as possible between the devices.
- | One trolley requires 30 amp circuit breaker.

Example of air conditioning equipment



- | For efficient indoor air conditioning, it is recommended to secure space of arranging trolleys and equipment of supply and exhaust air ducts.
- | Heat from condenser of the model HA-HC40E is measured as approximately 3,100kcal. (This will be used for calculating how to set up air conditioning equipment.)

List of investigating points

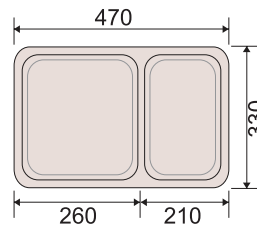
Product in and out | Driving route / Inclined way / Raised spot / Drain / Elevator size / Maximum load carrying capacity for elevator (Total weight includes weights of the device, trays, food and users.)

Place and condition | Use in the room temperature of 30°C | Install in wide area | Use where water is not easily accessible

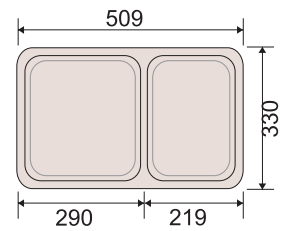
Various colours of H&C separated tray



- INDIAN PINK
- CAMEL
- GREEN



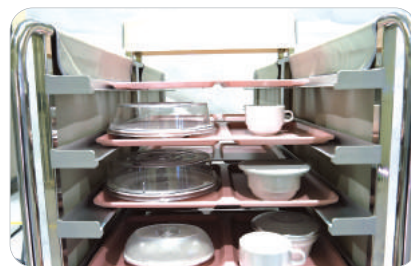
HA-T470



HA-T509 (For export)

Return cart for trays after use

- Trays can be returned neatly, after having meals.
- Convenient handle can move and turn the cart easily.
- Efficient use of space by stacking up the carts
- Water proof cover makes the cart clean.



Bumper on turning wheels



Rounded handle corner



Wide tray rails



Private type cover (option)

Specifications on models

Electromotive driving type



MODEL	Exterior size (mm)			No. of trays	Rows, Layers	Power consumption (Kw)	Weight (Kg)	Working voltage
	W	D	H					
HA-HC60E	2,176	770	1,740	60	6, 10	4.0	430	3P 380V N+E 50/60Hz
HA-HC54E	2,176	770	1,620	54	6, 9	3.7	410	
HA-HC48E	2,176	770	1,500	48	6, 8	3.4	390	
HA-HC40E	1,526	770	1,740	40	4, 10	2.7	320	1P 220V+E 50/60Hz
HA-HC36E	1,526	770	1,620	36	4, 9	2.5	300	
HA-HC32E	1,526	770	1,500	32	4, 8	2.3	280	

Manual driving type



MODEL	Exterior size (mm)			No. of trays	Rows, Layers	Power consumption (Kw)	Weight (Kg)	Working voltage
	W	D	H					
HA-HC36	1,526	770	1,620	36	4, 9	2.5	260	1P 220V+E 50/60Hz
HA-HC32	1,526	770	1,500	32	4, 8	2.3	240	



MODEL	Exterior size (mm)			No. of trays	Rows, Layers	Power consumption (Kw)	Weight (Kg)	Working voltage
	W	D	H					
HA-HC20	970	770	1,740	20	2, 10	1.8	180	1P 220V+E 50/60Hz
HA-HC18	970	770	1,740	18	2, 9	1.7	170	

Return cart



MODEL	Exterior size (mm)			No. of trays	Rows, Layers	Weight (Kg)
	W	D	H			
HA-R40	1,522	598	1,574	40	4, 10	45
HA-R36	1,522	598	1,464	36	4, 9	43
HA-R32	1,522	598	1,354	32	4, 8	41
HA-R24	1,192	598	1,354	24	3, 8	35

Custom carts



Electromotive cart for transfusion of fluid



Electromotive cart for PO2 containers



Electromotive cart for pathological containers



Electromotive cart for sterilized goods



Electromotive general cart



Electromotive carts for goods



Insulated mini manual cart



Electromotive H&C cart for sterilization



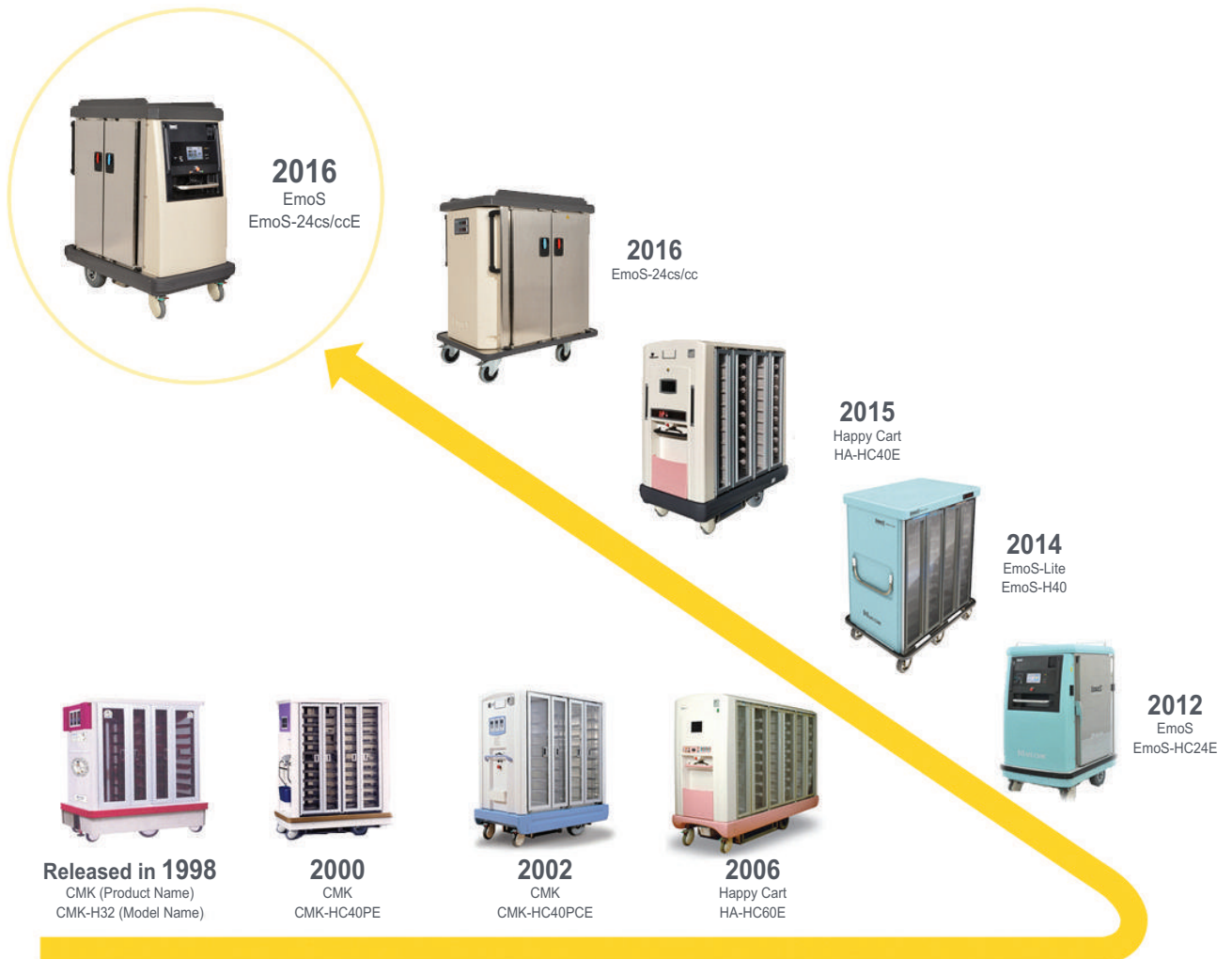
Electromotive hot cart for Hong Kong

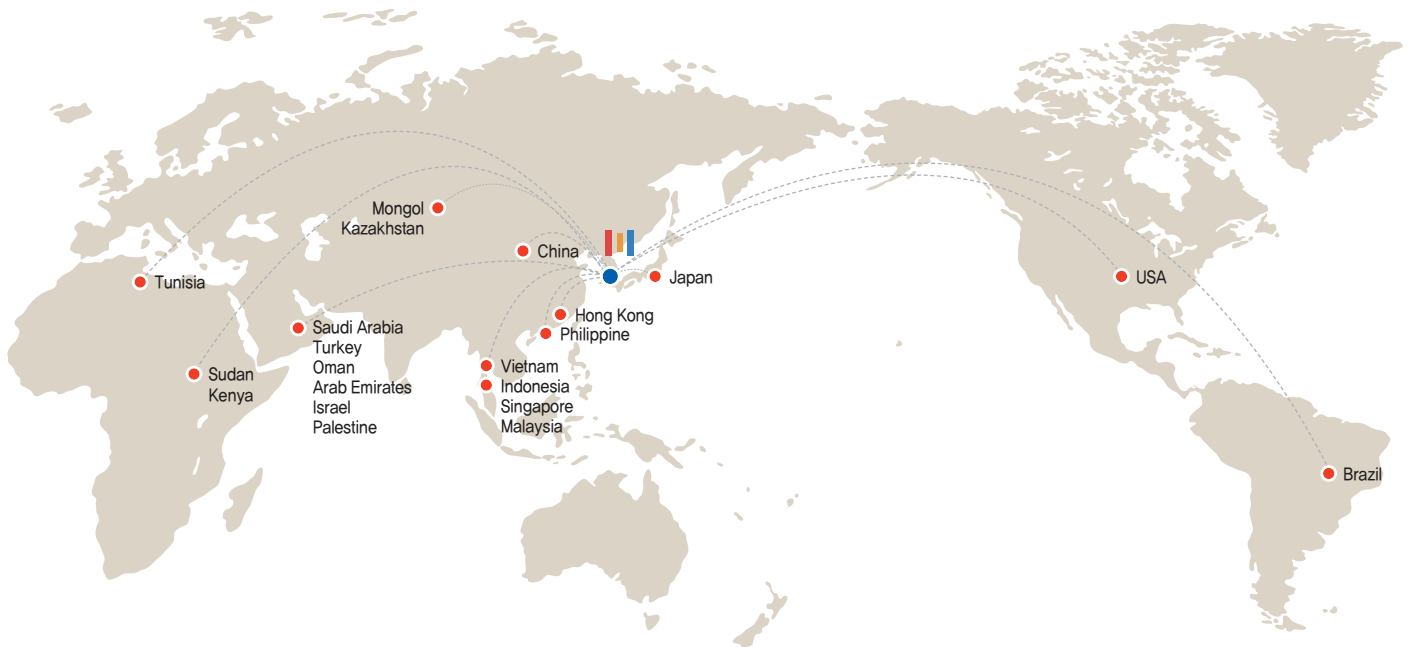
Products for the best hospitals



Model Changes by Years

Myungse CMK is continuing to invest heavily in R&D to develop technologies and services.





Head Office & Factory | 73, Sandan 3-Ro, Jeonggwan-Eup, Gijang-Gun, Busan, Korea

Tel. +82-51-518-7135~7 | Fax. +82-51-517-3549

Seoul Branch Office | Tel. +82-31-425-3905 | Fax. +82-31-425-3906

Homepage: <http://www.msckm.com>

E-mail: oversea@msckm.com, younsoo.kim@msckm.com