Reference specifications

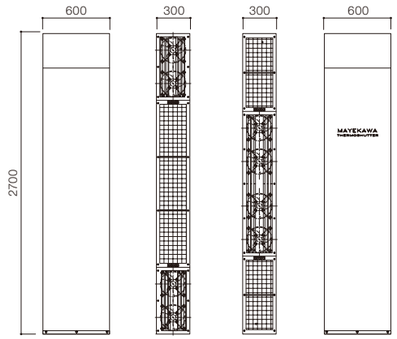
Type		MTS-205	MTS-215	MTS-225	MTS-235	MTS-245	MTS-255	MTS-265	MTS-275	MTS-285	MTS-295
Outer dimensions	Height (mm)	2,000	2,100	2,200	2,300	2,400	2,500	2,600	2,700	2,800	2,900
	Width (mm)	600									
	Length (mm)	300									
Standard opening width (mm)		Up to 3,000									
Estimated weight: Left + Right (kg)		80 + 80		85 + 85		95 + 95		100 + 100		105 + 105	
Power supply		3-phase 200V, 50/60 Hz									
Main materials		Stainless steel (SUS304) Hairline finish (except for fans and other internal parts)									
Fan	Model	22 cm pressure bearing flow fan									
	No. of fans	6				8					
	Nominal output (W/fan)	75									
	Voltage	3-phase 200V									
	Electricity consumption (50Hz/60Hz) in kW	0.66/0.84				0.88/1.12					
Ambient conditions		Operating temperature: -10°C to 45°C, relative humidity: up to 90% (without icing or frosting)									
Accessories		Control panel									
Options		Ceiling blind plate, shear packing, drain socket, inverter specification (50Hz range)									

Type		MTS-305	MTS-315	MTS-325	MTS-335	MTS-345	MTS-355	MTS-365	MTS-375	MTS-385	MTS-395	MTS-405
Outer dimensions	Height (mm)	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,700	3,800	3,900	4,000
	Width (mm)	600										
	Length (mm)	300										
Standard opening width (mm)		Up to 3,000										
Estimated weight: Left + Right (kg)		110 + 110		115 + 115		120 + 120		130 + 130		140 + 140		145+145
Power supply		3-phase 200V, 50/60 Hz										
Main materials		Stainless steel (SUS304) Hairline finish (except for fans and other internal parts)										
Fan	Model	22 cm pressure bearing flow fan										
	No. of fans	10					12					
	Nominal output (W/fan)	75										
	Voltage	3-phase 200V										
	Electricity consumption (50Hz/60Hz) in kW	1.1/1.4					1.32/1.68					
Ambient conditions		Operating temperature: -10°C to 45°C, relative humidity: up to 90% (without icing or frosting)										
Accessories		Control panel										
Options		Ceiling blind plate, shear packing, drain socket, inverter specification (50Hz range)										

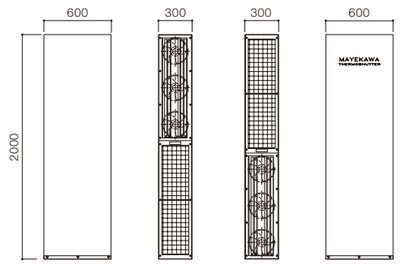
●Consult Mayekawa office, if a different height is required from the list above. ●Installing a ceiling blind plate can prevent air flow from spreading out more efficiently blocking the flow out. Shear packing are required if there are gaps between Thermo shutter and walls or doors. ●If there is a pressure differential between the outside and inside, air flow may be affected, reducing the efficiency of the system.

Outer dimensions

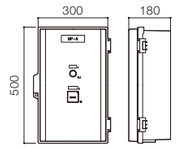
2700H



2000H



Standard control panel with plastic enclosure



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MAYEKAWA MYCOM

Horizontal Air Circulation Heat Shield Air Curtain

Thermo shutter

Optimal shielding of incoming warm air and outgoing cold air

Heat Barrier

The first horizontal air circulation system
Keep cold air in and warm air out

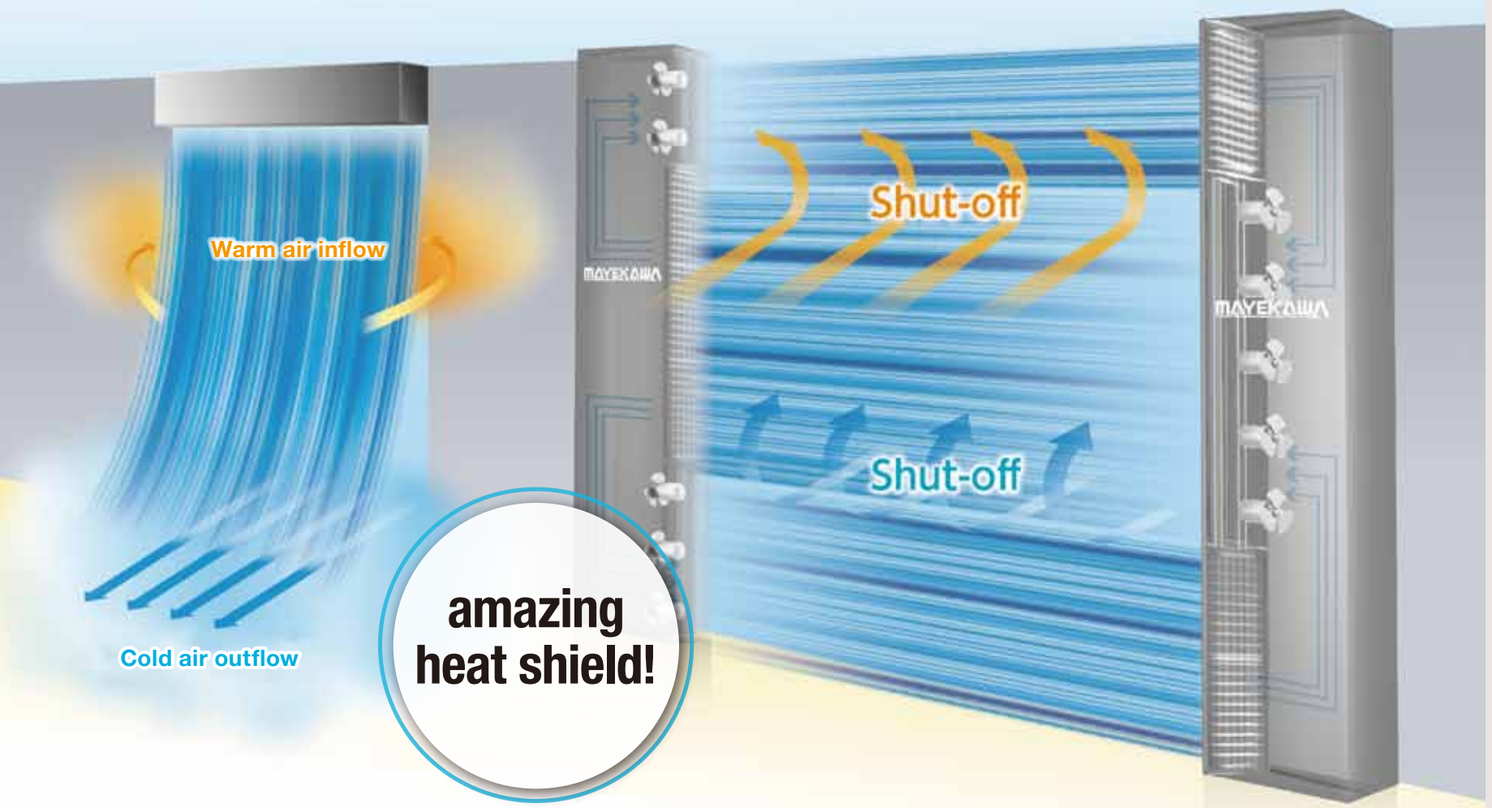
With the ever advancing small-lot, high-demand delivery, doors in cold storage are opened more frequently.
Thermo Shutter provides reliable heat shield performance that solves these problems.

Conventional air curtain
[Vertical air from the top]

The air downflow at the bottom is not strong enough to block cold air flowing out.

Thermo shutter [Horizontal air circulation]

The horizontal air circulation shields cold air at the bottom and warm air at the top which have been the weakest area of the conventional air curtain.



amazing heat shield!

Feature 1 Stable storage temperature ensures product quality.

Feature 2 Less condensation and frost in a cold storage decreases the defrost frequency.

Feature 3 Prevention of heat loss reduces power consumption.

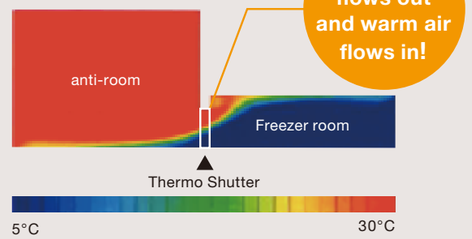
How Thermo Shutter heat shield works

Average heat shield efficiency **75%** *According to Mayekawa research

CFD analysis shows obvious effect!

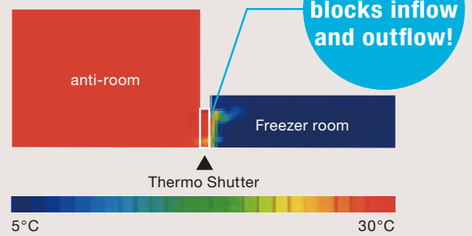
Temperature change simulation affected by warm and cold air flow with the doors open for 15 seconds while Thermo Shutter stopped and in operation.
The pictures show the shielding effect even with the doors left open.

● Thermo Shutter stopped
15 seconds with doors opened.



Cold air flows out

● Thermo Shutter in operation
15 seconds with doors opened.



Cold air stopped by horizontal circulation air

The examples of installation

Over **2,000** systems installed

This product has shown its effect in various applications.

Thermo shutter has been adopted in a number of industries to high praise, including cold storage, logistic centers and loading docks. The table shows an energy reduction by adopting the product.

	Before*1 Power consumption		After*2 Power consumption		Energy saving
Logistic center Inside 10°C / Outside air temperature (Thermo Shutter: 6 sets)	556 kWh/day	→	385 kWh/day	=	31%
Loading dock Inside 10°C / Outside air temperature (Thermo Shutter: 44 sets)	2,058 kWh/day	→	1,562 kWh/day	=	24%
Cold storage Inside -20°C / Outside 10°C (Thermo Shutter: 1 set)	96.7 kWh/day	→	64.9 kWh/day	=	33%

*1 Power consumption of cooling system.
*2 Power consumption includes power consumption of Thermo Shutter as well.

Cold storage
Inside -25°C / Outside 5°C
Size: 3,000mm (h) x 2,600mm (w)
Door opening by Pull switch

Stats for outside installation on loading docks
Inside 5°C / Outside air temperature
Size: 2,000mm (h) x 2,600mm (w)
Upward sliding door

Cold storage
Inside -25°C / Outside -5°C
Size: 2,600mm (h) x 2,200mm (w)
Door opening by Pull switch