

VERTICAL CONVEYOR LIFTER

CONTENTS

What is a vertical conveyor?

A vertical slat conveyor that can be used as production and conveyance equipment of factories. It is unnecessary to carry in and out things or directly intervene. The work efficiency will be improved greatly because there is no need to wait for calling of the load carrying platform or door opening/closing. Full automation can be realized by making the layout with our conveyors.



Vertical conveyors for continuous vertical conveyance

Case conveyor

• 100-kg type	MCZ-100 • MCC-100	P100
• 250-kg type	MCZ-250 • MCC-250	P102

Pallet conveyor

• 500-kg type	MPZ-500 • MPC-500	P102
• 1000-kg type	MPZ-1000 • MPC-1000	P104
• 1500-kg type	MPZ-1500 • MPC-1500	P106

Clean environment type

• 12-kg type	MCPZ-12 • MCPC-12	P108
--------------	-------------------	------

Vertical lifter for reciprocating vertical conveyance

Reciprocating vertical conveyor

• 50-kg aluminum type	BEL	P110
• 50-kg steel type	JEL	P111
• 200-kg type	JEL-200	P112
• 500-kg type	JEL-500	P113
• 1000-kg type	JEL-1000	P113

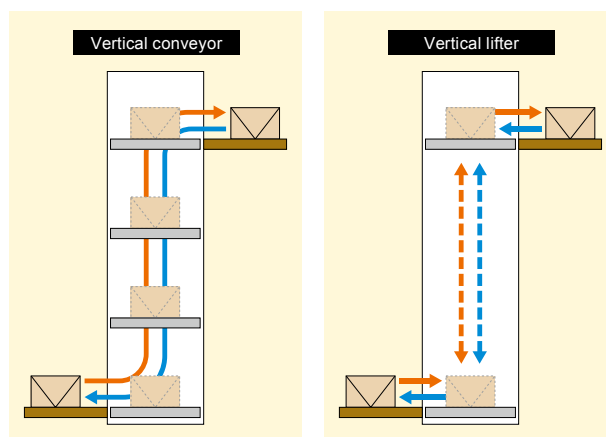
Difference between vertical conveyor and vertical lifter

A vertical conveyor that carries things continuously has a transport capacity at least twice as large as that of a vertical lifter because the load carrying platform carries things without reciprocating. The transport capacity can further be enhanced by increasing the number of slats.

Rough standard for which type to use

- <When the carried items are 50 kg or below and the lifting height is 5 m>
- Vertical conveyor: 120 pieces or more/hour
 - Vertical lifter: 120 pieces or less/hour

*Contact our person in charge for details.



MCZ-100 MCC-100 Vertical conveyor

Continuous conveyance

Maximum transport load 100 kg



Carries things vertically and continuously in a small space between two fixed points. Many variations are available depending on the size of the items to be carried. High-level conveyance of maximum transport capacity of 1,200 pieces (600 pieces)/hour, which is the feature of the vertical conveyor (continuous conveyance), is realized.



Control panel
(The signal tower is available as option.)

■ Specifications

(Unit: mm)

Model	MCZ-100	MCC-100
Direction of conveyance	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)
Drive system	Chain drive (#60)	
Movable load	Max 100 kg/slat (specified in dimension table)	
Lifting height	Max 25000	
Loading height	Min 500 (Min 700 when the lifting height exceeds 6,000 mm)	
Nominal frontage (W)	700W 900W 1100W	
Nominal depth (L)	820L 1010L 1200L	
Transport velocity	15m/min 20m/min 25m/min 30m/min	
Motor output	0.75kW 1.5kW 2.2kW 3.7kW	
Power supply	220 VAC (three phase) × 60 Hz 200 VAC (three phase) × 50 Hz	
Control power	Standard: 24 VDC Option: 200 VAC (single phase), 100 VAC	
Exterior	Standard: steel sheet Option: PET resin, expand metal	
Paint color	Major green S31-513 (Japan Paint Manufacturers Association Standard Paint Colors) Close to Munsell symbol 2.5G 6/3	
Safety device	Stop failure detection PH, loading check PH, delivery detection, optional devices (product height detection PH, fall detection PH)	
Separate estimate	Loading conveyor, fire shutter, control panel, operation panel, electric wiring work inside machine	

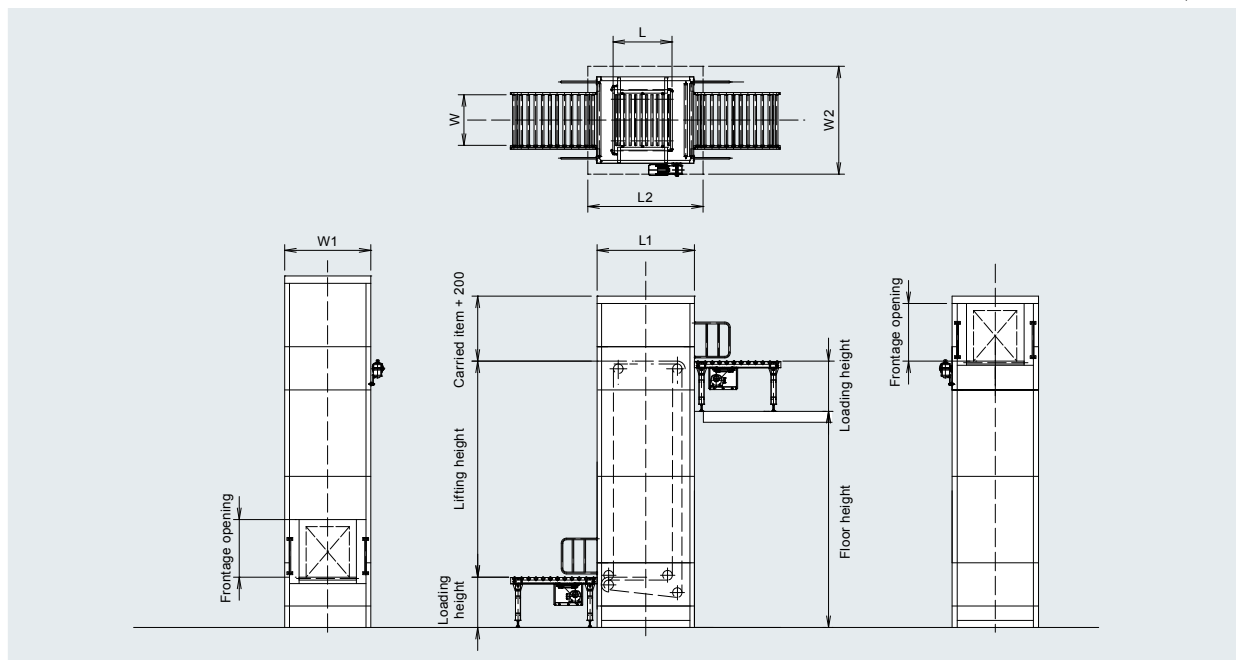
Model indication

MCZ - **100** - **5000** - **800** - **1010** - **20** - **1.5**
 Type: C: Case conveyor
 Direction of conveyance: C: Type with entrance and exit on the same surface, Z: Type with entrance and exit on front and back
 Withstand load: Max 100kg
 Lifting height (mm)
 Nominal frontage (mm)
 Nominal depth (mm)
 Transport velocity (m/min)
 Motor capacity (kW)

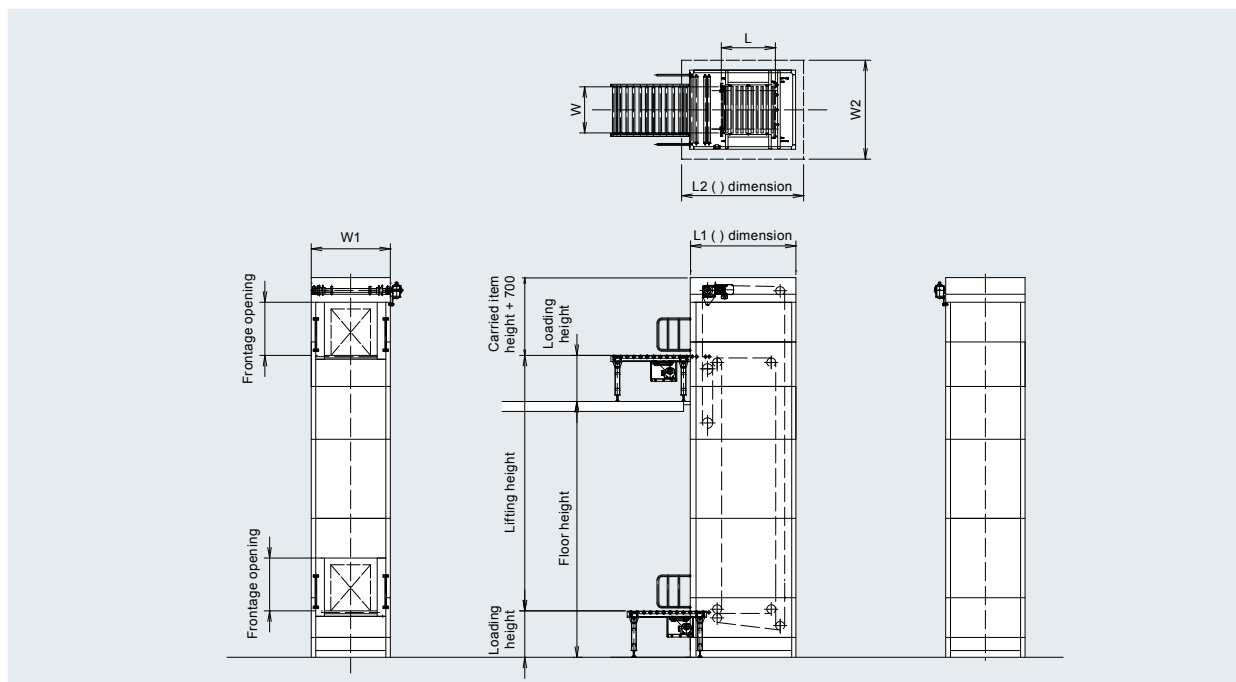
*Please note that the transport capacity differs depending on various factors.

MCZ-100 model

(Unit: mm)



MCC-100 model



■Dimension table

(Unit: mm)

Load carrying platform dimensions		Max. item to be carried			Max. carrying capacity	Body dimensions		Floor opening dimensions		Loading height
Nominal frontage (W)	Nominal depth (L)	Width	Length	Height	Load (kg)	Width (W1)	Depth (L1)	Width (W2)	Depth (L2)	Min. dimension
600	705	500	500	600	100	1100	1236 (1486)	1400	1500 (1700)	500 (700)
	819		600		100		1350 (1600)		1600 (1800)	500 (700)
	1200		1000		80		1731 (1981)		2000 (2200)	600 (700)
800	705	700	500	800	100	1300	1236 (1486)	1600	1500 (1700)	500 (700)
	819		600		100		1350 (1600)		1600 (1800)	500 (700)
	1200		1000		80		1731 (1981)		2000 (2200)	600 (700)
1000	705	900	500	1000	100	1500	1236 (1486)	1900	1500 (1700)	500 (700)
	819		600		80		1350 (1600)		1600 (1800)	500 (700)
	1200		1000		70		1731 (1981)		2000 (2200)	600 (700)

*The maximum carrying capacity is a value indicated by a distributed load. Please note that it differs depending on the condition.

*The numbers in the () of the body and the opening indicate the dimension of the MCC model.

*The numbers in the () of the loading height indicate the numbers when the lifting height is high.

*The above dimensions may be changed.

MCZ-250 MCC-250 Vertical conveyor MPZ-500 MPC-500

Continuous conveyance

Maximum transport load 250 kg

Maximum transport load 500 kg



Carries things vertically and continuously in a small space between two fixed points. Many variations are available depending on the size of the items to be carried. High-level conveyance of maximum transport capacity of 150 pieces (100 pieces)/hour, which is the feature of the vertical conveyor (continuous conveyance), is realized.



Control panel
(The signal tower is available as option.)

■ Specifications

(Unit: mm)

Model	250-kg type		500-kg type	
	MCZ-250	MCC-250	MPZ-500	MPC-500
Direction of conveyance	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)
Drive system	Chain drive (#80)		Chain drive (#80)	
Movable load	Max 250 kg/slat (specified in dimension table)		Max 500 kg/slat (specified in dimension table)	
Lifting height	Max 20000		Max 20000	
Loading height	Min 700		Min 700	
Nominal frontage (W)	1000W 1200W		1300W 1400W	
Nominal depth (L)	1250L 1400L		1450L 1500L	
Transport velocity	15/18m/min (50/60Hz)		10/12m/min (50/60Hz)	
Motor output	2.2kW 3.7kW		3.7kW 5.5kW	
Power supply	220 VAC (three phase) × 60 Hz 200 VAC (three phase) × 50 Hz			
Control power	Standard: 24 VDC Option: 200 VAC (single phase), 100 VAC			
Exterior	Standard: steel sheet Option: PET resin, expand metal			
Paint color	Major green S31-513 (Japan Paint Manufacturers Association Standard Paint Colors) Close to Munsell symbol 2.5G 6/3			
Safety device	Stop failure detection PH, loading check PH, delivery detection, optional devices (product height detection PH, fall detection PH)			
Separate estimate	Loading conveyor, fire shutter, control panel, operation panel, electric wiring work inside machine			

Model indication

MPZ

500

20000

1400

1500

12

5.5

Type
P: Pallet conveyor
C: Case conveyor

Direction of conveyance
C: Type with entrance and exit on the same surface
Z: Type with entrance and exit on front and back

Withstand load
Max250kg
Max500kg

Lifting height
(mm)

Nominal frontage
(mm)

Nominal depth
(mm)

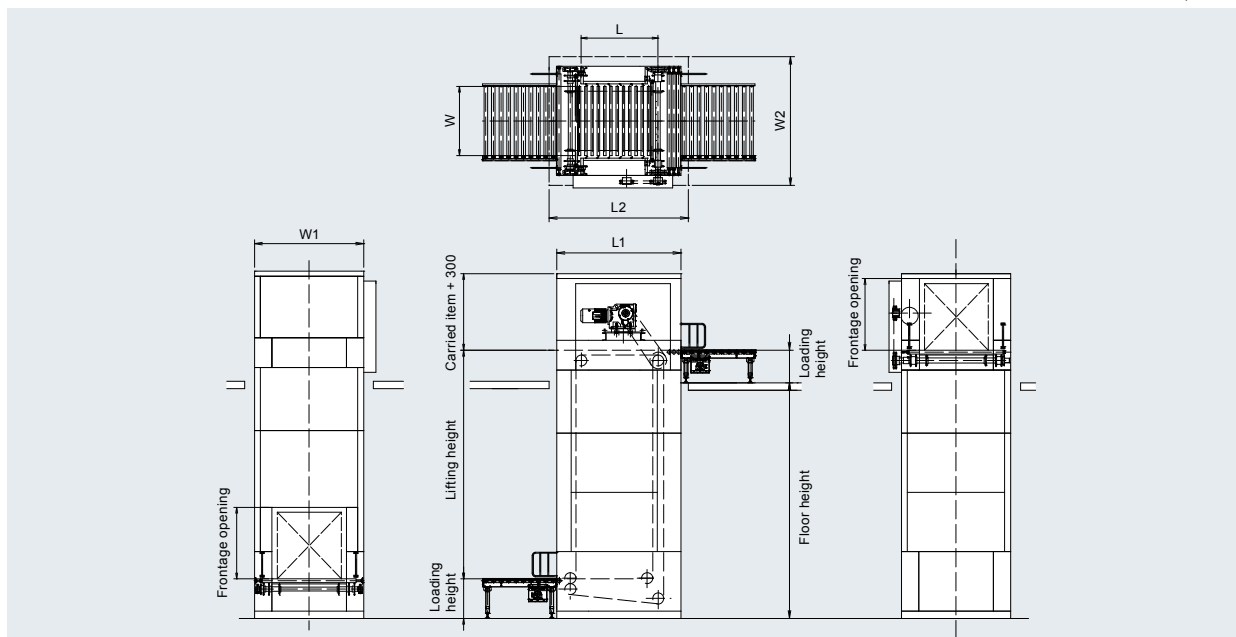
Transport velocity
(m/min)

Motor capacity
(kW)

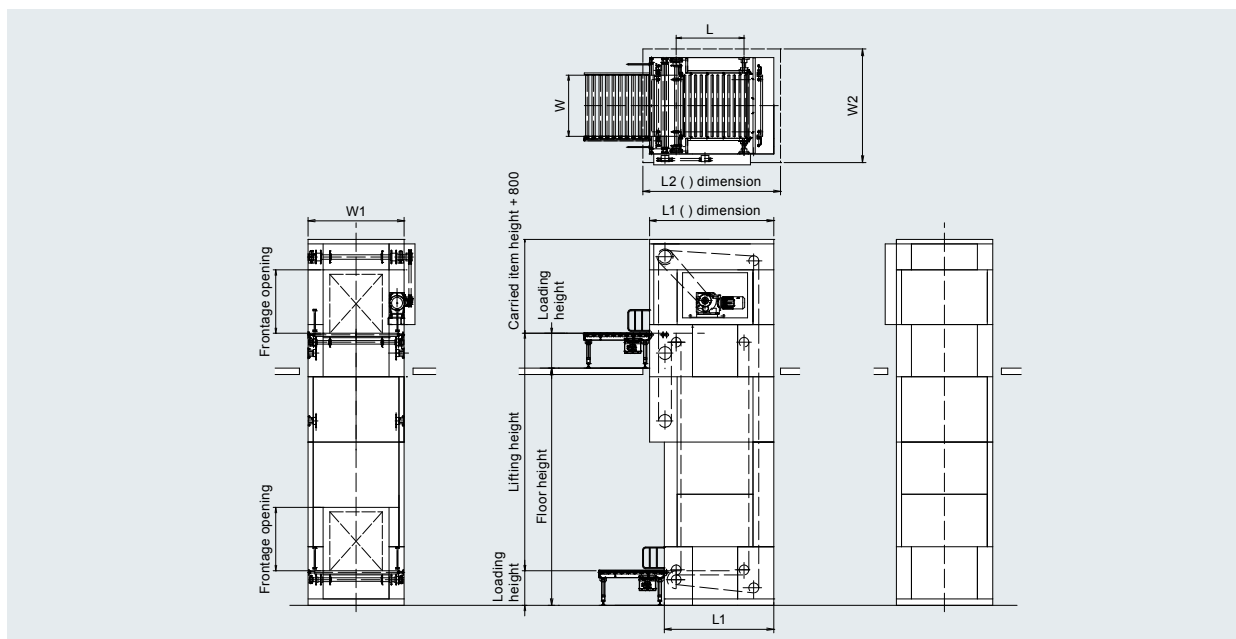
*Please note that the transport capacity differs depending on various factors.

MCZ-250 model MPZ-500 model

(Unit: mm)



MCC-250 model MPC-500 model



■ MCZ-250 MCC-250 (250-kg type)

(Unit: mm)

Load carrying platform dimensions		Max. item to be carried			Max. carrying capacity	Body dimensions		Floor opening dimensions		Loading height
Nominal frontage (W)	Nominal depth (L)	Width	Length	Height	Load (kg)	Width (W1)	Depth (L1)	Width (W2)	Depth (L2)	Min. dimension
1000	1250	900	900	1000	250	1500	1960 (2230)	1800	2200 (2500)	700
	1400		1100				2110 (2380)		2400 (2600)	
1200	1250	1100	900			1700	1960 (2230)	2000	2200 (2500)	
	1400		1100				2110 (2380)		2400 (2600)	

■ MPZ-500 MPC-500 (500-kg type)

Load carrying platform dimensions		Max. item to be carried			Max. carrying capacity	Body dimensions		Floor opening dimensions		Loading height
Nominal frontage (W)	Nominal depth (L)	Width	Length	Height	Load (kg)	Width (W1)	Depth (L1)	Width (W2)	Depth (L2)	Min. dimension
1300	1450	1100	1100	1500	500	2000	2200 (2550)	2400	2500 (2900)	700
	1500		1200				2250 (2600)		2600 (3000)	
1400	1450	1200	1100			2100	2200 (2550)	2500	2500 (2900)	
	1500		1200				2250 (2600)		2600 (3000)	

*The maximum carrying capacity is a value indicated by a distributed load. Consult us because it differs depending on the condition.

*The numbers in the () of the body and the opening indicate the dimension of the MPC model. *The above dimensions may be changed.

Continuous vertical pallet conveyor

MPZ-1000 MPC-1000 Vertical conveyor

Continuous conveyance

Maximum transport load 1,000 kg



Carries things vertically and continuously in a small space between two fixed points. Many variations are available depending on the size of the items to be carried. High-level conveyance of maximum transport capacity of 150 (100)/hour, which is the feature of the vertical conveyor (continuous conveyance), is realized.



Control panel
(The signal tower is available as option.)

■ Specifications

(Unit: mm)

Model	MPZ-1000	MPC-1000
Direction of conveyance	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)
Drive system	Chain drive (#100)	
Movable load	Max 1,000 kg/slat (specified in dimension table)	
Lifting height	Max 20000	
Loading height	Min 700	
Nominal frontage (W)	1300W 1500W	
Nominal depth (L)	1430L 1620L	
Transport velocity	10/12 m/min (50/60Hz)	
Motor output	5.5kW 7.5kW 11kW	
Power supply	220 VAC (three phase) × 60 Hz 200 VAC (three phase) × 50 Hz	
Control power	Standard: 24 VDC Option: 200 VAC (single phase), 100 VAC	
Exterior	Standard: steel sheet Option: PET resin, expand metal	
Paint color	Major green S31-513 (Japan Paint Manufacturers Association Standard Paint Colors) Close to Munsell symbol 2.5G 6/3	
Safety device	Stop failure detection PH, loading check PH, delivery detection, optional devices (product height detection PH, fall detection PH)	
Separate estimate	Loading conveyor, fire shutter, control panel, operation panel, electrical wiring work inside machine	

Model indication

MPZ

1000

6000

1300

1620

10

7.5

Type
P: Pallet conveyor
Direction of conveyance
C: Type with entrance and exit on the same surface
Z: Type with entrance and exit on front and back

Withstand load
Max1000kg

Lifting height
(mm)

Nominal frontage
(mm)

Nominal depth
(mm)

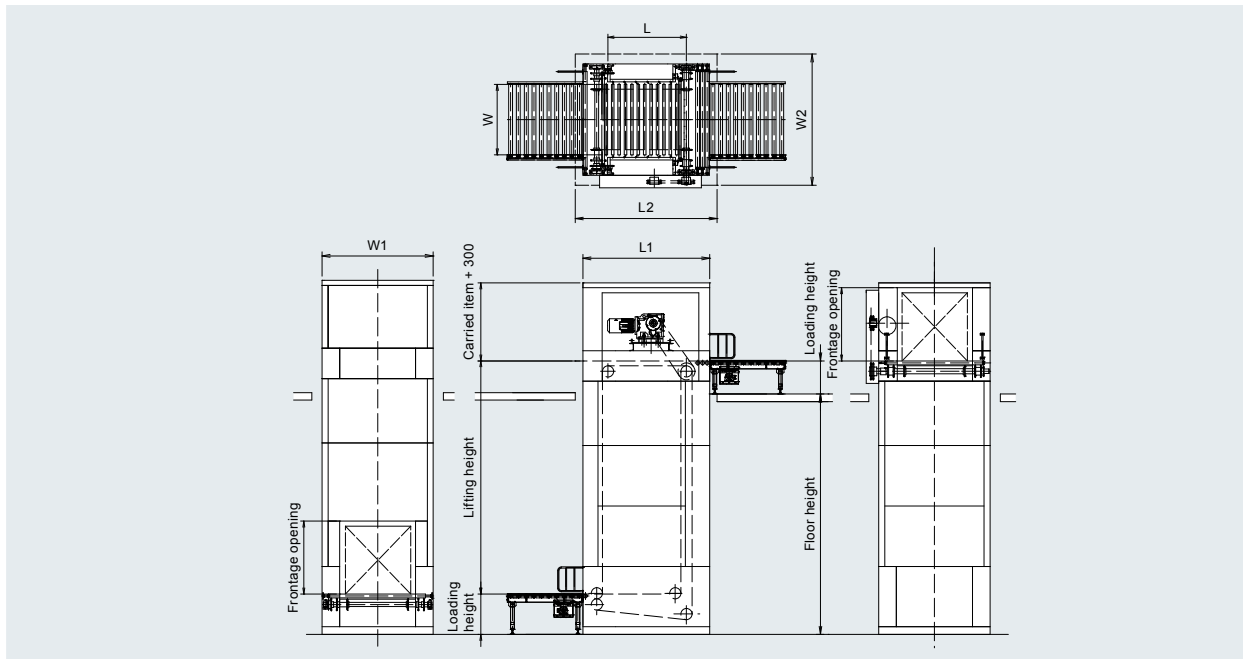
Transport velocity
(m/min)

Motor capacity
(kW)

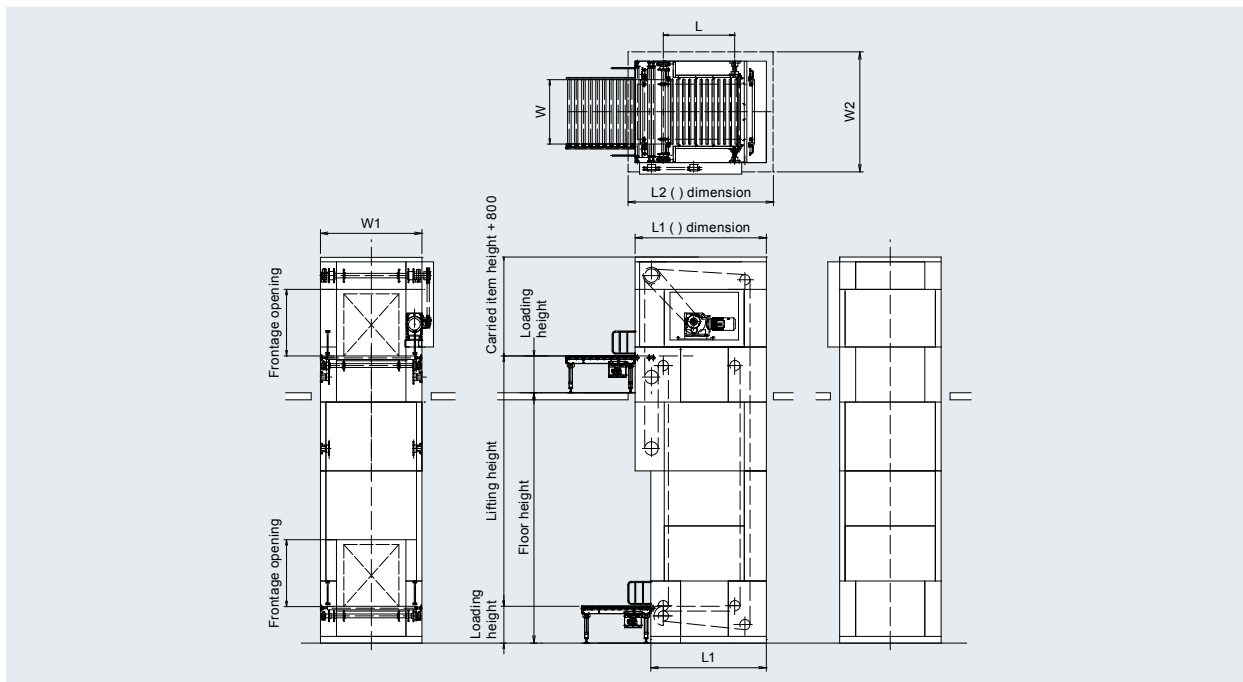
*Please note that the transport capacity differs depending on various factors.

MPZ-1000 model

(Unit: mm)



MPC-1000 model



■Dimension table

(Unit: mm)

Load carrying platform dimensions		Max. item to be carried			Max. carrying capacity	Body dimensions		Floor opening dimensions		Loading height
Nominal frontage (W)	Nominal depth (L)	Width	Length	Height	Load (kg)	Width (W1)	Depth (L1)	Width (W2)	Depth (L2)	Min. dimension
1300	1430	1100	1100	1500	1000	2110	2400 (2740)	2500	2600 (3000)	700
	1620		1300				2590 (2930)		2800 (3200)	
1500	1430	1300	1100			2310	2400 (2740)	2700	2600 (3000)	
	1620		1300				2590 (2930)		2800 (3200)	

*The maximum carrying capacity is a value indicated by a distributed load. Consult us because it differs depending on the condition.

*The numbers in the () of the body and the opening indicate the dimension of the MPC model.

*The above dimensions may be changed.

Continuous vertical pallet conveyor

MPZ-1500 MPC-1500 Vertical conveyor

Continuous conveyance

Maximum transport load 1,500 kg



Carries things vertically and continuously in a small space between two fixed points. Many variations are available depending on the size of the items to be carried. High-level conveyance of maximum transport capacity of 150 (100)/hour, which is the feature of the vertical conveyor (continuous conveyance), is realized.



Control panel
(The signal tower is available as option.)

■ Specifications

(Unit: mm)

Model	MPZ-1500	MPC-1500
Direction of conveyance	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)
Drive system	Chain drive (#140)	
Movable load	Max 1,500 kg/slat (specified in dimension table)	
Lifting height	Max 15000	
Loading height	Min 800	
Nominal frontage (W)	1300W 1500W	
Nominal depth (L)	1560L 1650L	
Transport velocity	10/12m/min (50/60Hz)	
Motor output	7.5kW 11kW 15kW	
Power supply	220 VAC (three phase) × 60 Hz 200 VAC (three phase) × 50 Hz	
Control power	Standard: 24 VDC Option: 200 VAC (single phase), 100 VAC	
Exterior	Standard: steel sheet Option: PET resin, expand metal	
Paint color	Major green S31-513 (Japan Paint Manufacturers Association Standard Paint Colors) Close to Munsell symbol 2.5G 6/3	
Safety device	Stop failure detection PH, loading check PH, delivery detection, optional devices (product height detection PH, fall detection PH)	
Separate estimate	Loading conveyor, fire shutter, control panel, operation panel, electric wiring work inside machine	

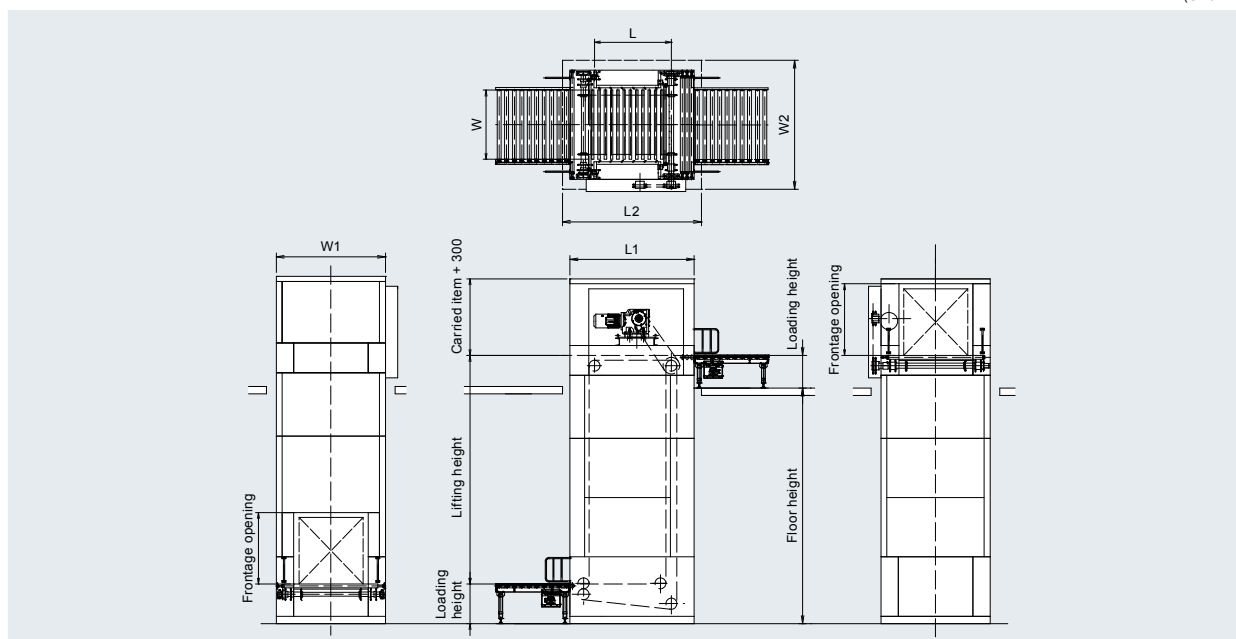
Model indication

MPZ - **1500** - **1000** - **1300** - **1560** - **10** - **11**
 P: Type Pallet conveyor Direction of conveyance Withstand load Max 1500kg Lifting height (mm) Nominal frontage (mm) Nominal depth (mm) Transport velocity (m/min) Motor capacity (kW)
 C: Type with entrance and exit on the same surface Z: Type with entrance and exit on front and back

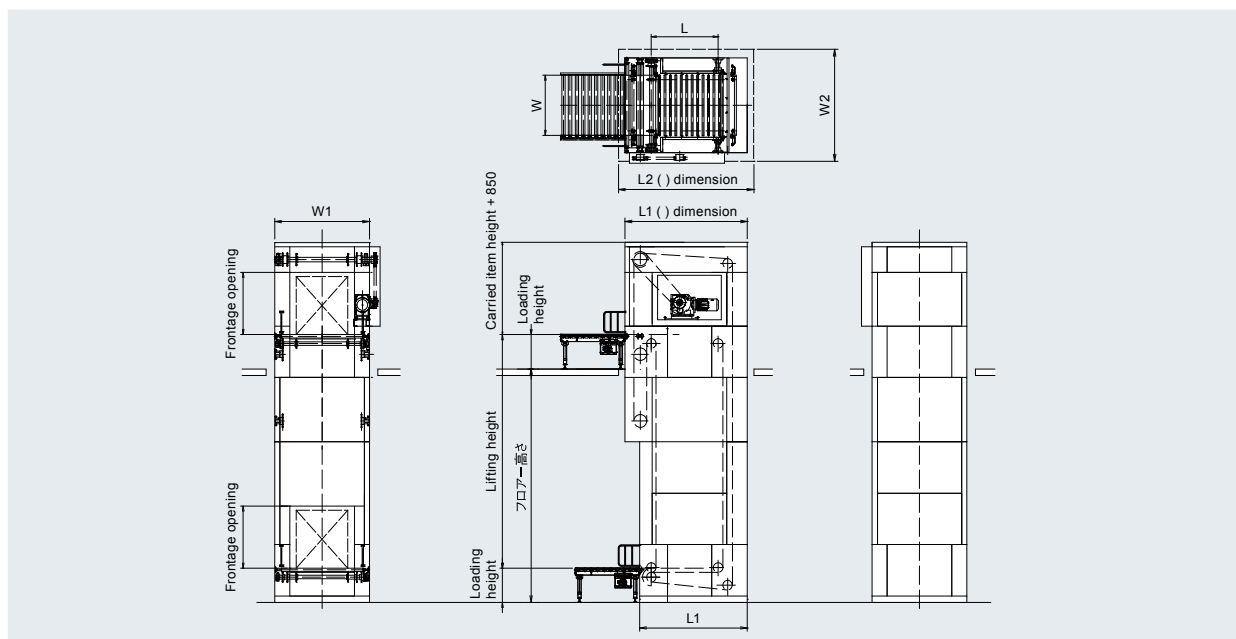
*Please note that the transport capacity differs depending on various factors.

MPZ-1500 model

(Unit: mm)



MPC-1500 model



■Dimension table

(Unit: mm)

Load carrying platform dimensions		Max. item to be carried			Max. carrying capacity	Body dimensions		Floor opening dimensions		Loading height
Nominal frontage (W)	Nominal depth (L)	Width	Length	Height	Load (kg)	Width (W1)	Depth (L1)	Width (W2)	Depth (L2)	Min. dimension
1300	1560	1100	1200	1500	1500	2400	2700 (3210)	2800	3000 (3500)	800
	1650		1300				2790 (3300)		3100 (3600)	
1500	1560	1300	1200			2600	2700 (3210)	3000	3000 (3500)	
	1650		1300				2790 (3300)		3100 (3600)	

*The maximum carrying capacity is a value indicated by a distributed load. Consult us because it differs depending on the condition.

*The numbers in the () of the body and the opening indicate the dimension of the MPC model.

*The above dimensions may be changed.

MCPZ-12 MCPC-12 Vertical conveyor

Continuous conveyance

Maximum transport load 12 kg

No-oil-supply is realized by adopting Makitech's unique plastic plate chain and plastic chain. Eco-friendly and clean conveyance is also realized by employing a plastic sprocket. The weight and energy consumption are greatly reduced by making the slat and the main chain plastic.

Patent
being
applied



Pla Slat®



Slat: plastic suitable for food
(connecting shaft is SUS304)



Main chain: plastic suitable for food
(connecting pin is SUS304)

■ Specifications

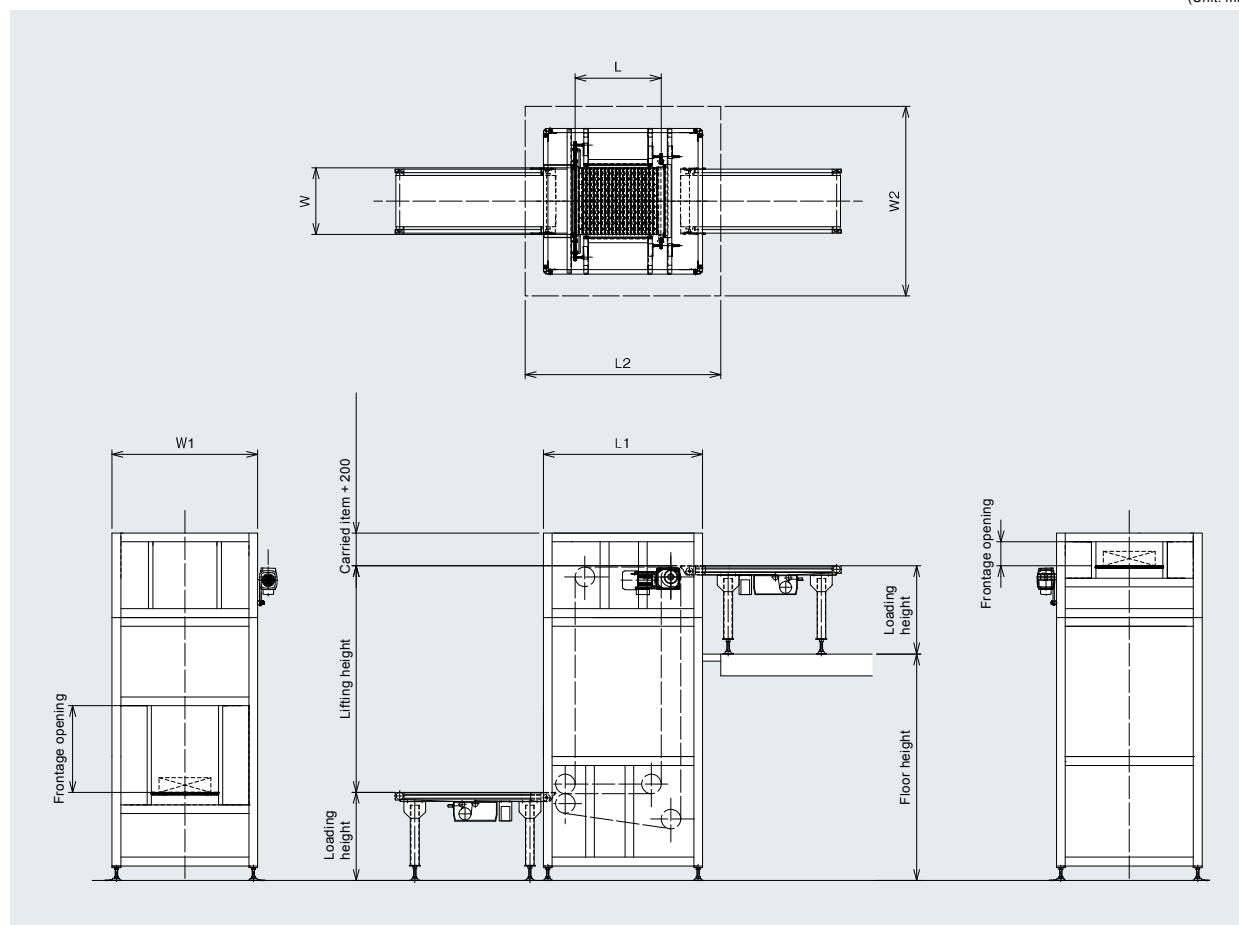
(Unit: mm)

Model	MCPZ-12	MCPC-12
Direction of conveyance	Z type (type with entrance and exit on front and back)	C type (type with entrance and exit on the same surface)
Drive system	Plastic chain #60 (connecting pin is SUS304)	
Slat	Plastic #80 (connecting shaft is SUS304)	
Movable load	Max 12 kg/slat	
Lifting height (mm)	Max 3500	
Loading height (mm)	Min 450	
Slat width	456W 608W	
Slat length	514L 591L 705L	
Transport velocity	5m/min ~ 30m/min	
Motor output	0.4kW 0.75kW	
Power supply	220 VAC (three phase) × 60 Hz 200 VAC (three phase) × 50 Hz	
Control power	Standard: 24 VDC Option: 200 VAC (single phase), 100 VAC	
Exterior	Standard: PET resin	
Body	Aluminum, stainless steel, iron	
Safety device	Stop failure detection PH, loading check PH, delivery detection, optional devices (product height detection PH, fall detection PH)	
Separate estimate	Loading conveyor, fire shutter, control panel, operation panel, electric wiring work inside machine	

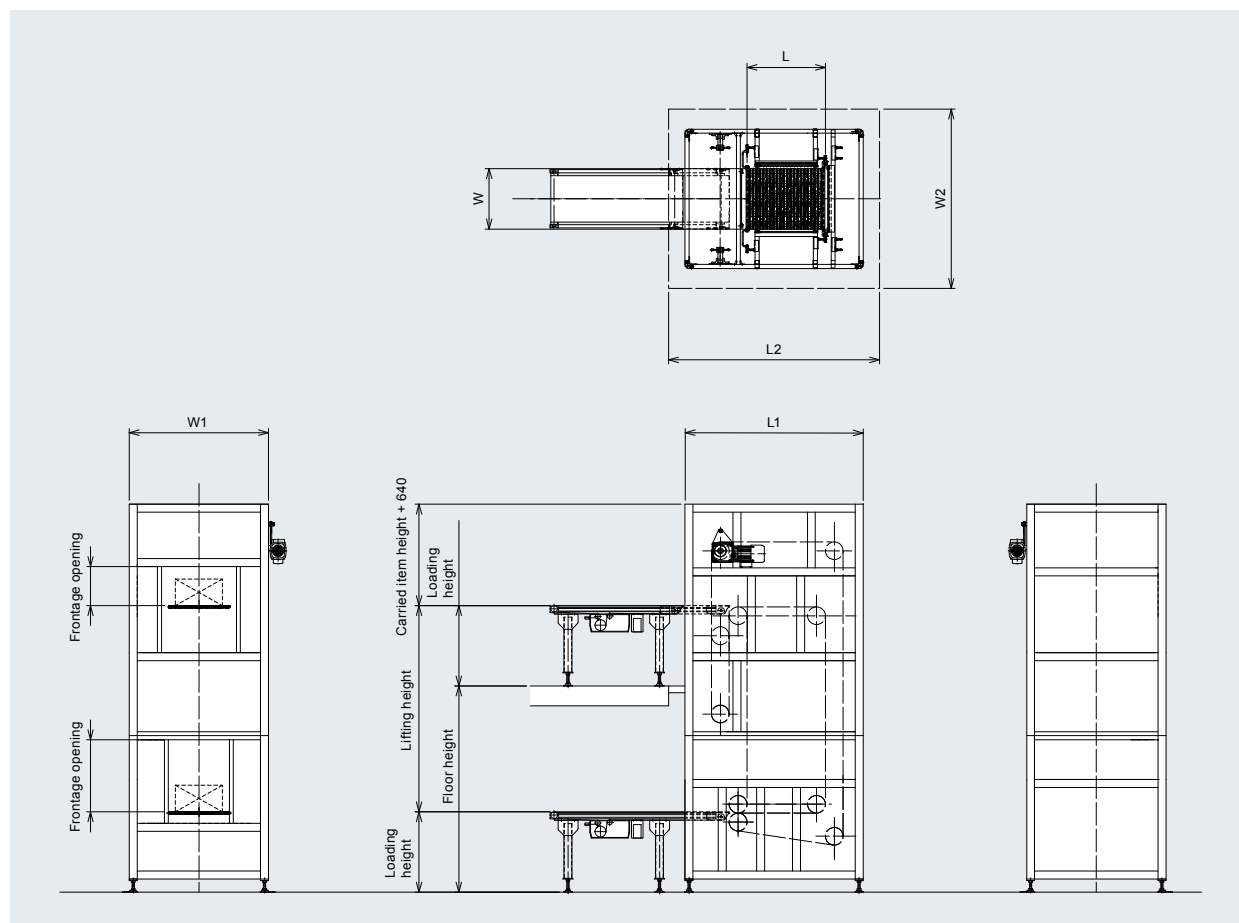
*A stainless steel frame type that can be washed with water can also be made.

MCPZ-12

(Unit: mm)



MCPC-12



Reciprocating vertical conveyor

BEL Vertical lifter

Aluminum

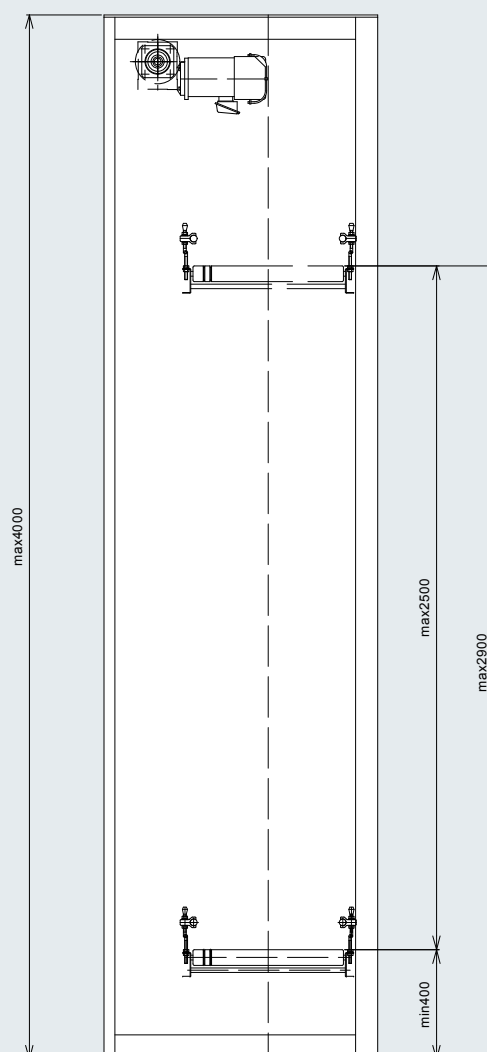
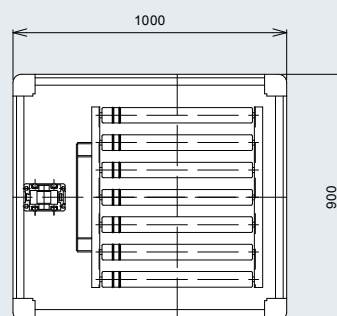
Medium weight model

Maximum transport load 50 kg

A lifting conveyor for vertical conveyance of light weight things.
It can be used for designing a three-dimensional conveyor line.



(Unit: mm)



■ Specifications

(Unit: mm)

Model	BEL
Drive system	Chain drive #50
Lifting height (H2)	2,500 (400~2,900)
Minimum height (H1)	400
Lifting velocity (m/min)	max 30
Motor output (kW)	0.75 kW equipped with brake
Transport capacity (kg)	max 50
Max. item to be carried	max 500W×600L×500H
Min. item to be carried	min 300W×300L×30H
Conveyor model	SST-57D equipped with brake
Power	200 VAC (three phase)

*Contact us for other available specifications besides the standard.

JEL Vertical lifter

Steel

Medium weight model

Maximum transport load 50 kg

A stable and simple lifter for vertical conveyance. It is optimum for lifting light weight things.



■ Specifications

(Unit: mm)

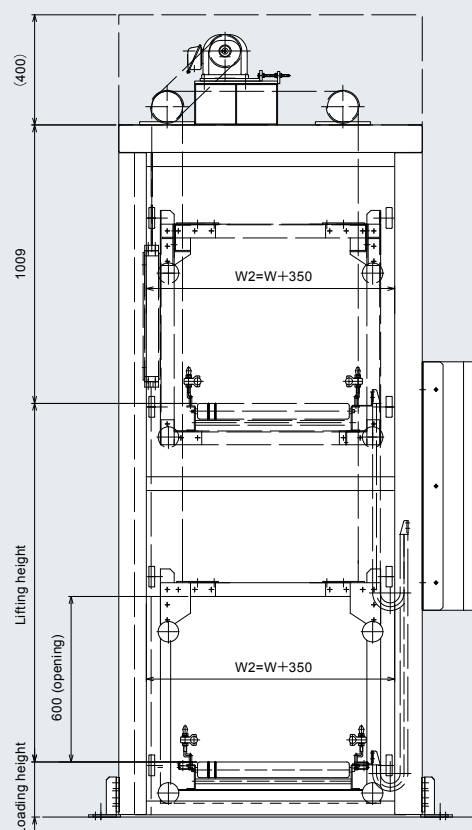
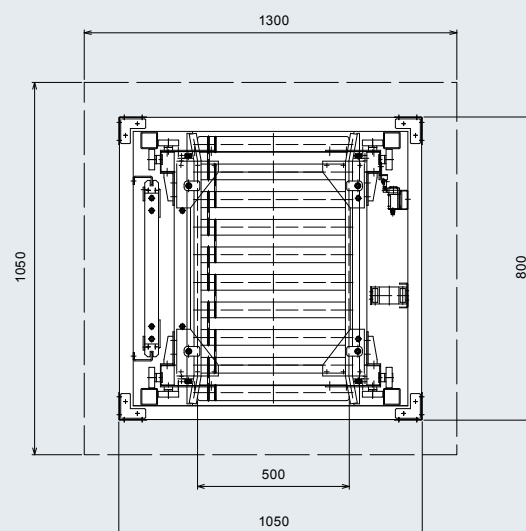
Model	JEL
Drive system	Chain drive #50
Lifting height (H2)	max 4,000
Minimum height (H1)	200
Lifting velocity (m/min)	max 40
Motor output (kW)	0.4 0.55 0.75 1.5 2.2
Transport capacity (kg)	max 50
Max. item to be carried	500W×600L×500H
Min. item to be carried	300W×300L×30H
Conveyor model	SST-57D equipped with brake
Power	200 VAC (three phase)

*Contact us for other available specifications besides the standard.

*An iron plate cover can also be made.

*The blue numbers indicate the sub standardsubstandard specification.

(Unit: mm)



Reciprocating vertical conveyor

JEL-200 Vertical lifter

Steel

Medium weight model

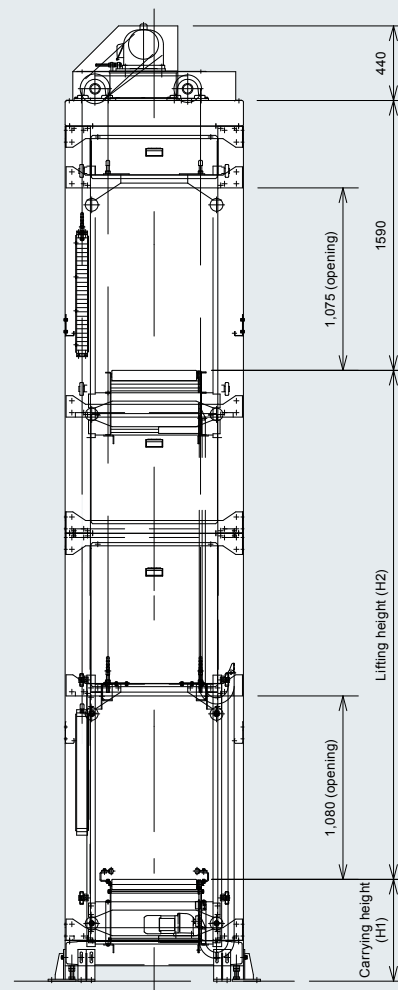
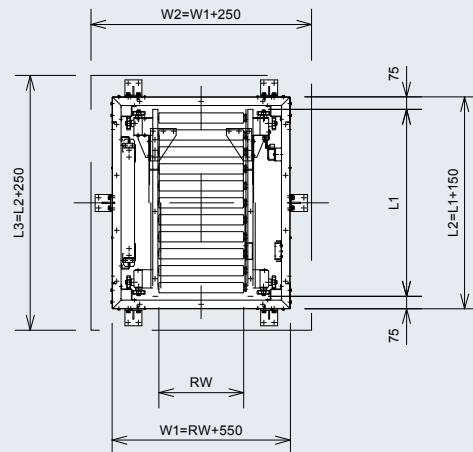
Maximum transport load 200 kg

A stable and simple lifter for vertical conveyance.

Carried items of up to 200 kg can be lifted to a height of 9 m at maximum.



(Unit: mm)



■ Specifications

(Unit: mm)

Model	JEL-200
Drive system	Chain drive (#60)
Transport capacity (kg)	Max 200kg
Lifting height (H2)	3000~9000
Minimum height (H1)	600
Lifting velocity (m/min)	10・20・30・40m/min
Motor output (kW)	0.75kW 1.5kW 2.2kW
Roller width (RW)	500RW~800RW
Machine length (L1)	1100L~1200L
Max. item to be carried	800W×1000L×1000H
Min. item to be carried	300W×400L×30H
Conveyor model	KR-604010S (equipped with brake)
Power	200 VAC (three phase)

*An aluminum frame type can also be made.

*Contact us for other available specifications besides the standard.

JEL-500 JEL-1000 Vertical lifter

Steel
Maximum transport load 500 kg
Maximum transport load 1,000 kg

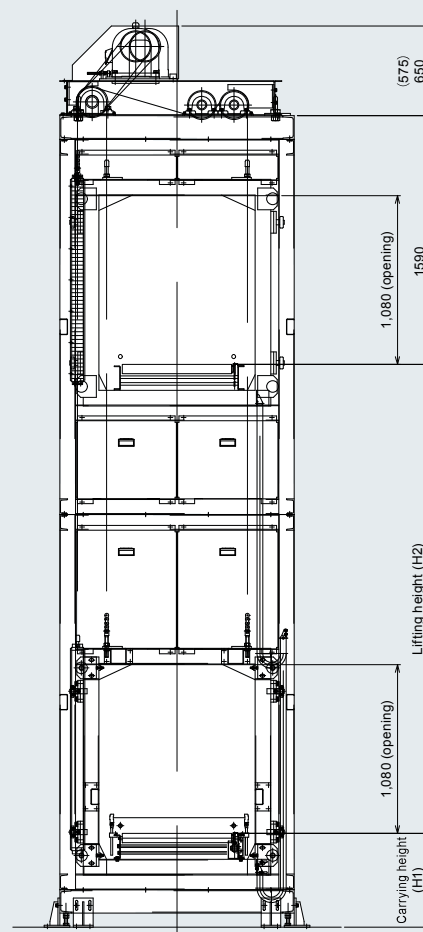
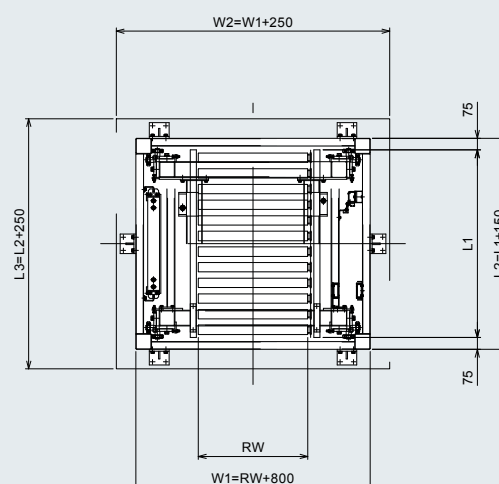
A stable and simple lifter for vertical conveyance.

Carried items of up to 500/1,000 kg can be lifted to a height of 9 m at maximum.



JEL-500

(Unit: mm)



■ Specifications

(Unit: mm)

Model	JEL-500	JEL-1000
Drive system	Chain drive (#80)	Chain drive (#100)
Lifting height (H2)	3000~9000	3000~9000
Minimum height (H1)	600	600
Lifting velocity (m/min)	6・10・20・33m/min	6・9・18m/min
Motor output (kw)	1.5kW 2.2kW 3.7kW 5.5kW	2.2kW 3.7kW 5.5kW
Transport capacity (kg)	Max 500kg	Max 1000kg
Roller width (RW)	700RW~1100RW	800RW~1000RW
Machine length (L1)	1200L~1400L	1200L~1400L
Max. item to be carried	Max 1100W× 1200L×1000H	Max 1300W× 1300L×1000H
Min. item to be carried	min 500W×500L×150H	min 500W×500L×150H
Conveyor model	Roller & chain	Roller & chain
Power	200 VAC (three phase)	200 VAC (three phase)

*Consult us for other lifting speed and lifting height besides the standard.

*It also supports high speed types by servo motor drive.