



VERTICAL TRANSFER SYSTEM VTS SERIES

Vertical Transfer System VTS Series Main Machine Types Overview Map

Leave it to the vertical professionals
to meet your every need.

Just as every person is different, there is endless variety in distribution locations.

Vertical conveyors need to be adaptable to fit any and all sites.

At HOKUSHO, we pride ourselves on our ability to optimize our products.



Vertical Continuous
Transfer Conveyor
VERTILATOR



Vertical Reciprocating
Transfer Conveyor
AUTOLATOR



Vertical Sorting
Transfer Conveyor
HIGH-TRAY

VTS Series - Machine Categories Map

What is a vertical transfer system (vertical conveyor)?

A vertical transfer system is a cargo-only transfer machine with a vertical transfer path, which comprises a vertical transfer apparatus (the vertical transfer machine itself) fitted with a mechanism that raises and lowers a cargo receiver, and a lateral transfer apparatus (a loading/unloading conveyor or loading/unloading device) fitted with a loading/unloading mechanism that loads and unloads cargo to and from the cargo receiver. *This is a cargo-only device, so people may not ride it under any circumstances.



*Not all machine types are represented in the machine categories shown on this map.

■ Cargo shape and guideline weight

■ JIS category (machine type/product name)

■ Machine type features/Product name, basic code

■ Max. Cargo Weight

■ Approx. transfer performance

■ Hoisting Method

■ Multi-floor capability/transfer direction structure

C Chain Hoist Type (Low/Medium-Speed)
 B Belt Hoist Type (Low/Medium-Speed)
 WR Wire Rope Hoist Type (High-Speed)

Changes according to height and hoist speed, etc.

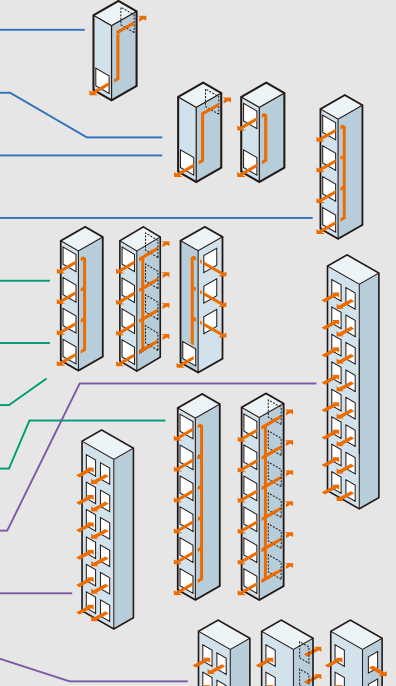
Lightweight items (guideline weight <50kg)

V JIS category: Vertical Slat Conveyor
Machine type: Vertical Continuous Transfer Machine
Product name: Vertilator

A JIS category: Vertical Reciprocating Conveyor
Machine type: Vertical Reciprocating Transfer Machine
Product name: Autolator

H JIS category: Vertical Tray Conveyor
Machine type: Vertical Sorting and Transfer Machine
Product name: High-Tray

(Case Item Transferring) Belt Hoist Type Vertical Continuous Transfer Machine Belt VERTILATOR	VBS14 B	~20kg	Approx. 3,000/hour	Belt Hoist Type	2-Floor
(Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine VERTILATOR S type	VES11 C	~30kg	*Approx. 2,000/hour	Chain Hoist Type	2-Floor
(Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine VERTILATOR F type	VEF11 C	~100kg	*Approx. 1,600/hour	Chain Hoist Type	2-Floor
(Case Item Transferring) Multi-Floor Chain Hoist Type Vertical Continuous Transfer Machine Multi-Floor VERTILATOR	VSVF C	~80kg	Approx. 500/hour	Chain Hoist Type	4-Floor
(Case Item Transferring) Belt Hoist Type Vertical reciprocating transfer Machine Belt AUTOLATOR	AEF B	~60kg	Approx. 150/hour	Belt Hoist Type	4-Floor
(Case Item Transferring) Chain Hoist Type Vertical Reciprocating Transfer Machine AUTOLATOR	AEF C	~60kg	Approx. 120/hour	Chain Hoist Type	4-Floor
(Case Item Transferring) Wire Rope Hoist Type Vertical Reciprocating Transfer Machine AUTOLATOR	AEF WR	~60kg	Approx. 150/hour	Wire Rope Hoist Type	4-Floor
High Speed Wire Rope Hoist Type Vertical Reciprocating Transfer Machine (for FOUF transfer) Clean AUTOLATOR for FOUFs	LDFW WR	~30kg	Approx. 140/hour (two-item transfer)	Wire Rope Hoist Type	6-Floor
Chain Hoist Type Vertical Sorting and Transfer Machine (for FOUF transfer) Clean HIGH-TRAY for FOUFs	HDFW C	~15kg	Approx. 400/hour	Chain Hoist Type	8-Floor
(Case Item Transferring) Energy-Saving Design Chain Hoist Type Vertical Sorting and Transfer Machine HIGH-TRAY Belt Tray Type	HBF C	~20kg	Approx. 1,500/hour	Chain Hoist Type	6-Floor
(Case Item Transferring) Chain Hoist Type Vertical Sorting and Transfer Machine HIGH-TRAY	HTF C	~50kg	Approx. 500/hour	Chain Hoist Type	6-Floor



Medium-weight items (guideline weight 50<500kg)

V (Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine
VERTILATOR P type

A (Case Item Transferring) Belt Hoist Type Vertical reciprocating transfer Machine
Belt AUTOLATOR

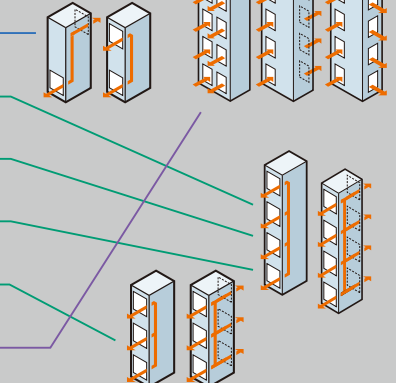
(Case Item Transferring) Chain Hoist Type Vertical Reciprocating Transfer Machine
AUTOLATOR

(Case Item Transferring) Wire Rope Hoist Type Vertical Reciprocating Transfer Machine
AUTOLATOR

(Any-package) Chain Hoist Type Vertical Reciprocating Transfer Machine
Shuttle AUTOLATOR

H (Case Item Transferring) Chain Hoist Type Vertical Sorting and Transfer Machine
HIGH-TRAY

~200kg	*Approx. 700/hour	Chain Hoist Type	2-Floor
~200kg	Approx. 130/hour	Belt Hoist Type	4-Floor
~200kg	Approx. 120/hour	Chain Hoist Type	4-Floor
~200kg	Approx. 150/hour	Wire Rope Hoist Type	4-Floor
~500kg	Transfers approx. 20/hour	Chain Hoist Type	3-Floor
~120kg	Approx. 300/hour	Chain Hoist Type	6-Floor



Heavyweight items (guideline weight 500<3000kg)

V (Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine
VERTILATOR W type

(Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine
VERTILATOR M type

(Any-package) Chain Hoist Type Vertical Reciprocating Transfer Machine
Shuttle AUTOLATOR

(Pallet Transferring) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard
Low-Top AUTOLATOR V

(Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard
Low-Top AUTOLATOR V Floor Circulation

(Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard
Low-Top AUTOLATOR V Floor Circulation E type

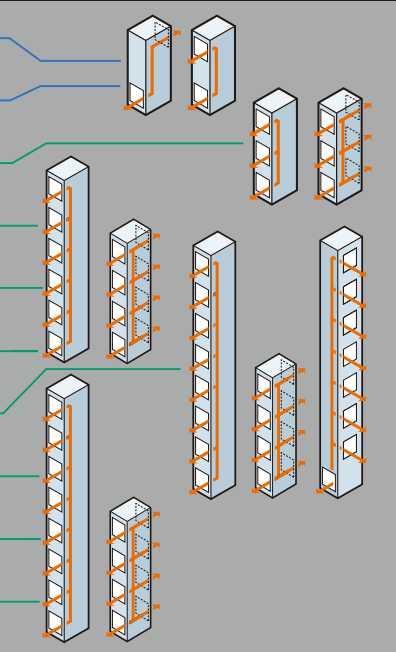
(Pallet Transferring) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard
AUTOLATOR V

(Pallet Transferring) Belt Hoist Type Vertical reciprocating transfer Machine *Equipped with E-VEAS or VEAS as standard
Belt AUTOLATOR V

(Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard
AUTOLATOR V Floor Circulation

(Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard
AUTOLATOR V Floor Circulation E type

~1,440kg	*Approx. 200 pallets/hour	Chain Hoist Type	2-Floor
~2,700kg	*Approx. 180 pallets/hour	Chain Hoist Type	2-Floor
~1,000kg	Transfers approx. 19/hour	Chain Hoist Type	3-Floor
~2,000kg	Approx. 70 pallets/hour	Chain Hoist Type	6-Floor
~1,500kg	Transfers approx. 65/hour	Chain Hoist Type	6-Floor
~1,500kg	Transfers approx. 65/hour	Chain Hoist Type	6-Floor
~3,000kg	Approx. 90 pallets/hour	Chain Hoist Type	8-Floor
~1,000kg	Approx. 85 pallets/hour	Belt Hoist Type	8-Floor
~2,000kg	Transfers approx. 75/hour	Chain Hoist Type	8-Floor
~2,000kg	Transfers approx. 90/hour	Chain Hoist Type	8-Floor



*E-VEAS and VEAS refer to the energy-saving control device fitted to heavy-duty AUTOLATOR models.

*These values are for the Z type. The transfer performance of the C type is approximately 1/2 that of the Z type.

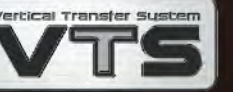
■ Installation environment: Indoors, surrounding temp. 0 - 40°C (no condensation) ● General environments compatible [Steel Chain Hoist Type/Wire Rope Hoist Type] ● Clean environments compatible (does not produce oil mist/metal filings) [Resin Belt Hoist Type] ○ Special environments: ① Low-temp. compatible (-5 - -30°C) [Cold Resist Specifications], ② Washable [All Stainless Steel Specifications], ③ Explosive gas/powders environment compatible [Explosion-Proof Specifications], ④ Clean environment compatible [Clean Room Specifications] *Specifications differ depending on the required cleanliness grade.

■ Building floors: 2 - 8 *Due to its frame construction, installation is possible in locations without a hoistway (fire shaft) if an anti-shake buffer is fitted (although there is a height limit). However, firewalls must be checked in the case of floor apertures. ○ Special order specifications: ① When exceeding max. floors [Additional Machinery/Control Specifications], ② When exceeding max. height [Main Unit Frame Reinforcement Specifications], ③ When transferring super-heavy cargo (over 3 tons) [Load Bearing Upgrade Specifications], ④ Adjacent to building/outdoor specifications [Outdoor Cladding]

VTS Series - Machine Categories Map

What is a vertical transfer system (vertical conveyor)?

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*Not all machine types are represented in the machine categories shown on this map.

■ Cargo shape and guideline weight
■ JIS category (machine type/product name)
■ Machine type features/Product name, basic code
■ VTS Series Lineup

■ Chain Hoist Type (Low/Medium-Speed)
■ Belt Hoist Type (Low/Medium-Speed)
■ Wire Rope Hoist Type (High-Speed)

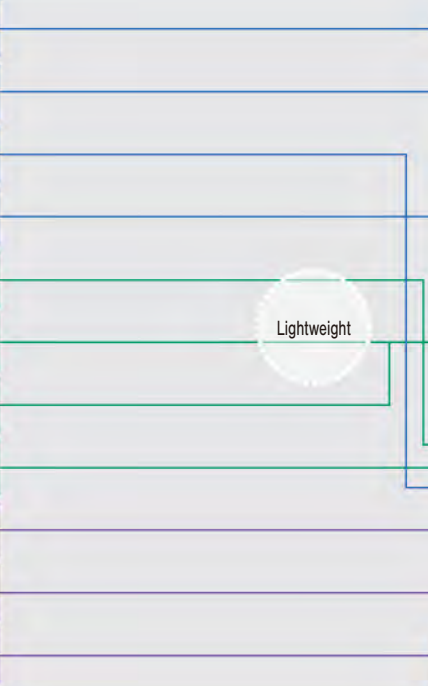
Lightweight items (guideline weight <50kg)

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Machine type: Vertical Sorting and Transfer Machine
Product name: High-Tray

(Case Item Transferring) Belt Hoist Type Vertical Continuous Transfer Machine	Belt VERTILATOR	VBS14 [B]
(Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine	VERTILATOR S type	VES11 [C]
(Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine	VERTILATOR F type	VEF11 [C]
(Case Item Transferring) Multi-Floor Chain Hoist Type Vertical Continuous Transfer Machine	Multi-Floor VERTILATOR	VSVF [C]
(Case Item Transferring) Belt Hoist Type Vertical reciprocating transfer Machine	Belt AUTOLATOR	AEF [B]
(Case Item Transferring) Chain Hoist Type Vertical Reciprocating Transfer Machine	AUTOLATOR	AEF [C]
(Case Item Transferring) Wire Rope Hoist Type Vertical Reciprocating Transfer Machine	AUTOLATOR	AEF [WR]
High Speed Wire Rope Hoist Type Vertical Reciprocating Transfer Machine (for FOUF transfer)	Clean AUTOLATOR for FOUFs	LDFF [WR]
Chain Hoist Type Vertical Sorting and Transfer Machine (for FOUF transfer)	Clean HIGH-TRAY for FOUFs	HDFH [C]
(Case Item Transferring) Energy-Saving Design Chain Hoist Type Vertical Sorting and Transfer Machine	HIGH-TRAY Belt Tray Type	HBF [C]
(Case Item Transferring) Chain Hoist Type Vertical Sorting and Transfer Machine	HIGH-TRAY	HTF [C]



Belt VERTILATOR VBS14 [B] [Max. transfer load: 20kg]

VERTILATOR S type VES11 [C] [Max. transfer load: 30kg]

Multi-Floor VERTILATOR VSVF [C] [Max. transfer load: 80kg]

AUTOLATOR AEF [C] [Max. transfer load: 60kg] / AEF [WR] [Max. transfer load: 60kg]

Belt AUTOLATOR AEF [B] [Max. transfer load: 60kg] / AEP [B] [Max. transfer load: 200kg]

Clean AUTOLATOR for FOUFs LDFF [WR] [Max. transfer load: 30kg]

Clean HIGH-TRAY for FOUFs HDFH [C] [Max. transfer load: 15kg]

HIGH-TRAY Belt Tray Type HBF [C] [Max. transfer load: 20kg]

HIGH-TRAY HTF [C] [Max. transfer load: 50kg]

Medium-weight items (guideline weight 50<500kg)

V (Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine

A (Case Item Transferring) Belt Hoist Type Vertical reciprocating transfer Machine

H (Case Item Transferring) Chain Hoist Type Vertical Sorting and Transfer Machine

(Case Item Transferring) Chain Hoist Type Vertical Continuous Transfer Machine	VERTILATOR P type	VEP11 [C]
(Case Item Transferring) Belt Hoist Type Vertical reciprocating transfer Machine	Belt AUTOLATOR	AEP [B]
(Case Item Transferring) Chain Hoist Type Vertical Reciprocating Transfer Machine	AUTOLATOR	AEP [C]
(Case Item Transferring) Wire Rope Hoist Type Vertical Reciprocating Transfer Machine	AUTOLATOR	AEP [WR]
(Any-package) Chain Hoist Type Vertical Reciprocating Transfer Machine	Shuttle AUTOLATOR	LZSW [C]
(Case Item Transferring) Chain Hoist Type Vertical Sorting and Transfer Machine	HIGH-TRAY	HTP [C]



VERTILATOR P type VEP11 [C] [Max. transfer load: 200kg]

VERTILATOR F type VEF11 [C] [Max. transfer load: 100kg]

Shuttle AUTOLATOR LZSW [C] [Max. transfer load: 500kg] / LZSH [C] [Max. transfer load: 1,000kg]

AUTOLATOR AEP [C] [Max. transfer load: 200kg] / AEP [WR] [Max. transfer load: 200kg]

HIGH-TRAY HTP [C] [Max. transfer load: 120kg]

Heavyweight items (guideline weight 500<3000kg)

V (Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine

A (Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine

A (Any-package) Chain Hoist Type Vertical Reciprocating Transfer Machine

A (Pallet Transferring) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard

A (Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard

A (Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard

A (Pallet Transferring) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard

A (Pallet Transferring) Belt Hoist Type Vertical reciprocating transfer Machine *Equipped with E-VEAS or VEAS as standard

A (Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard

A (Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard

(Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine	VERTILATOR W type	VKW [C]
(Pallet Transferring) Chain Hoist Type Vertical Continuous Transfer Machine	VERTILATOR M type	VCM [C]
(Any-package) Chain Hoist Type Vertical Reciprocating Transfer Machine	Shuttle AUTOLATOR	LZSH [C]
(Pallet Transferring) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard	Low-Top AUTOLATOR V	AVVW [C]
(Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard	Low-Top AUTOLATOR V Floor Circulation	AVNWW [C]
(Pallet/Non-pallet) Low ceiling-compatible Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard	Low-Top AUTOLATOR V Floor Circulation E type	AVEVW [C]
(Pallet Transferring) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with E-VEAS or VEAS as standard	AUTOLATOR V	AEVW [C]
(Pallet Transferring) Belt Hoist Type Vertical reciprocating transfer Machine *Equipped with E-VEAS or VEAS as standard	Belt AUTOLATOR V	AEVW [B]
(Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard	AUTOLATOR V Floor Circulation	AENWW [C]
(Pallet/Non-pallet) Chain Hoist Type Vertical reciprocating transfer machines with energy efficient control *Equipped with VEAS as standard	AUTOLATOR V Floor Circulation E type	AEVW [C]



VERTILATOR W type VKW [C] [Max. transfer load: 1,440kg]

VERTILATOR M type VCM [C] [Max. transfer load: 2,700kg]

AUTOLATOR V Floor Circulation AENWW [C] [Max. transfer load: 2,000kg] / Low-Top AVNWW [C] [Max. transfer load: 1,500kg]

Belt AUTOLATOR AEW [B] [Max. transfer load: 1,000kg] / **Belt AUTOLATOR V** AEWV [B] [Max. transfer load: 1,000kg]

AUTOLATOR V AEWV [C] [Max. transfer load: 3,000kg] / **AUTOLATOR** AEW [C] [Max. transfer load: 3,000kg]

Low-Top AUTOLATOR V AVVW [C] [Max. transfer load: 2,000kg] / **Low-Top AUTOLATOR** AVV [C] [Max. transfer load: 2,000kg]

Vertical Reciprocating Transfer Machine AUTOLATOR for Heavyweight Cargo

VEAS Energy-Saving Control Device Start-Up Power Assist System [VEAS]

E-VEAS [BCP-Compatible] Energy-Saving Control Device Start-Up Power Assist System [E-VEAS]

垂直往復コンベヤにおける省エネおよび停電時の自立起動技術について

Access QR code to the website. [VEAS] & [E-VEAS] Presentation (Japanese)

https://www.hokusho.co.jp/video_jp/page/std_veas_present.html

■ Installation environment: Indoors, surrounding temp. 0 - 40°C (no condensation) ● General environments compatible [Steel Chain Hoist Type/Wire Rope Hoist Type] ● Clean environments compatible (does not produce oil mist/metal filings) [Resin Belt Hoist Type] ○ Special environments: ① Low-temp. compatible (-5 - -30°C) [Cold Resist Specifications], ② Washable [All Stainless Steel Specifications], ③ Explosive gas/powders environment compatible [Explosion-Proof Specifications], ④ Clean environment compatible [Clean Room Specifications] *Specifications differ depending on the required cleanliness grade.

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