

RTN-X

Automated High-speed
Transportation and
Sorting Vehicle

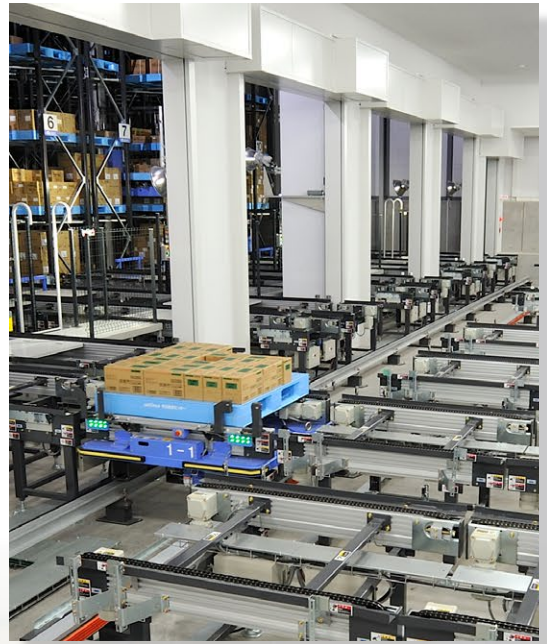


Traveling speed of 250 m/min (820 ft./min), industry-leading transport capability

Rail-guided high-speed sorting vehicle (RTN-X)

The rail-guided high-speed sorting vehicle, RTN-X can build a complex system using various methods, like combining receiving and shipping conveyors into AS/RS and transporting them between processes.

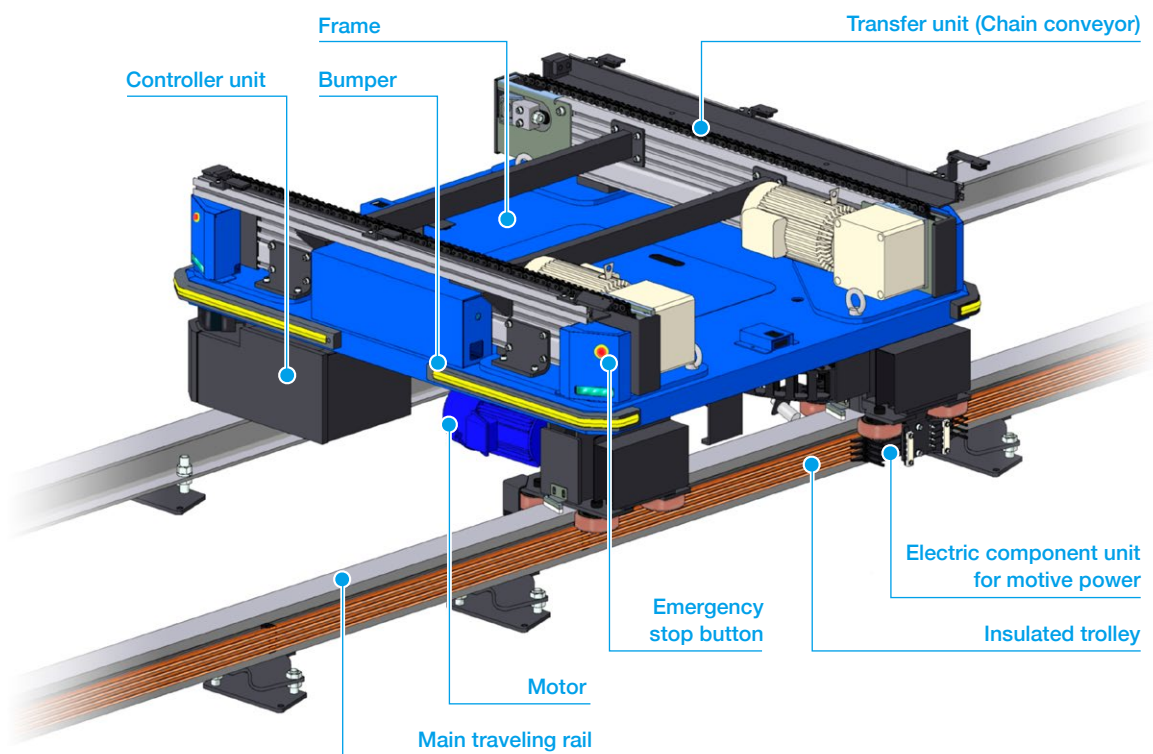
By placing work stations and storage/ retrieval stations individually, more than one activity can be conducted at the same time. The vehicle-to-vehicle communication function enables the control of the optimum vehicle distance, therefore collisions are prevented and the transport/ sorting capacity is greatly increased.



RTN-X

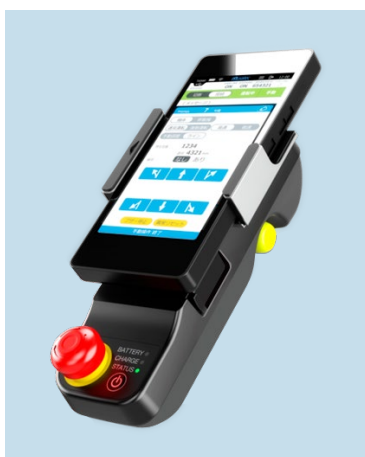
Automated High-speed Transportation
and Sorting Vehicle

Component names



Smart remote controller

The RTN-X is operated from a tablet terminal using a smart remote controller that incorporates an emergency shutdown unit (certified according to international safety standards), enabling machine operations and monitoring from a single device and/or smartphone.



Transport at high traveling speeds of 250 m/min (820 ft./min)

The state-of-the-art transport equipment has the industry-leading and world's fastest transport capability.

Collision prevention function

By vehicle-to-vehicle communication, RTN-X can keep distance from other RTN-X.

The RTN-X behind acquires data, such as the current and traveling speed of the RTN-X ahead, reduces its speed to equal speed and keeps optimum distance in order to avoid collision.

Features LCX (Leaky coaxial wireless LAN)

LCX (leaky coaxial) cable is installed along the rails. This communication method uses waves leaked from the cable, however because the cables and antenna are located close together, this has little effect on other systems, allowing for the maintenance of stable communications.

Energy-saving design

Automatic evacuation line

The automatic evacuation line streamlines the operation by using the optimum number of vehicles, in accordance with the amount of goods.

Power consumption is lowered and running cost for parts replacement and others is reduced.

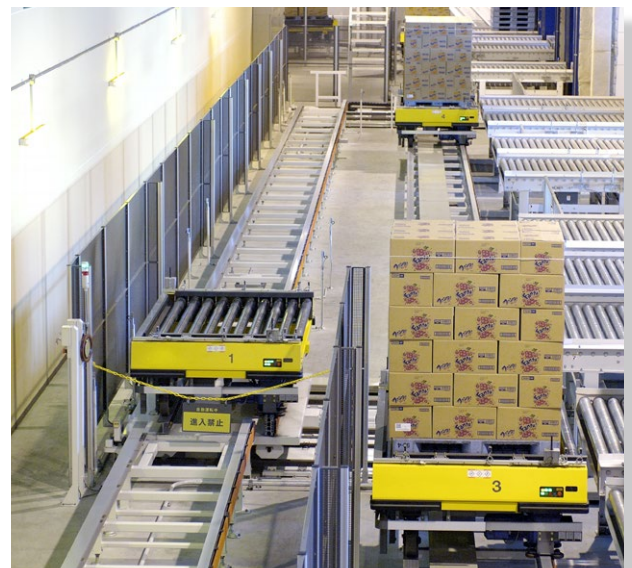
Ejection Control

With ejection control, carts on the transport route are ejected while requested carts are transported to designated stations, so only the minimum number of carts necessary are moving at any given time.

This contributes to lower running costs by both reducing energy consumption and extending the useful life of system parts.

Maintenance area

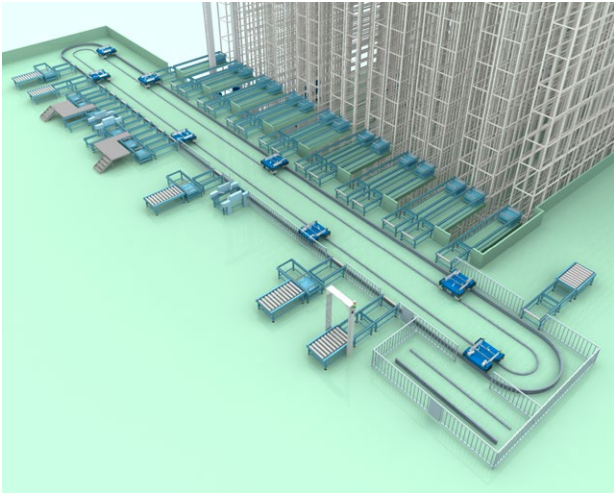
If a RTN-X is faulty, it can be moved to the maintenance area where maintenance can be safely performed without stopping the entire system operation.



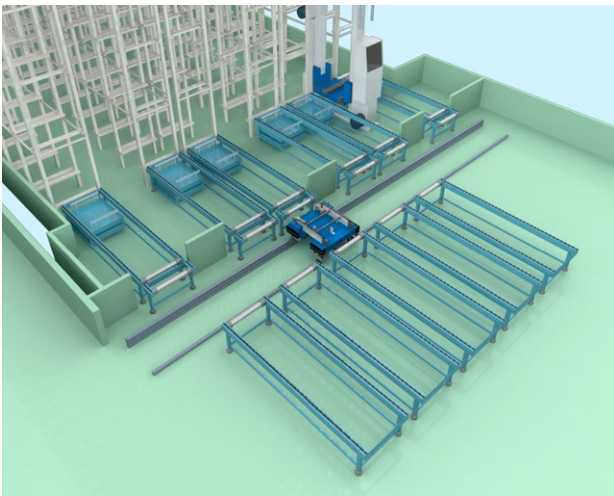
RTN-X active in various situations

Various configurations can be made depending on purpose and use by combining conveyors and stations.

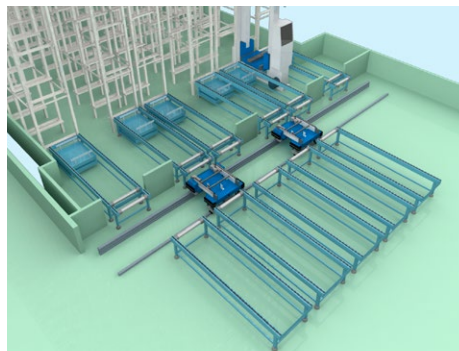
High-speed transport and sorting in distribution center in order to support receiving and shipping work



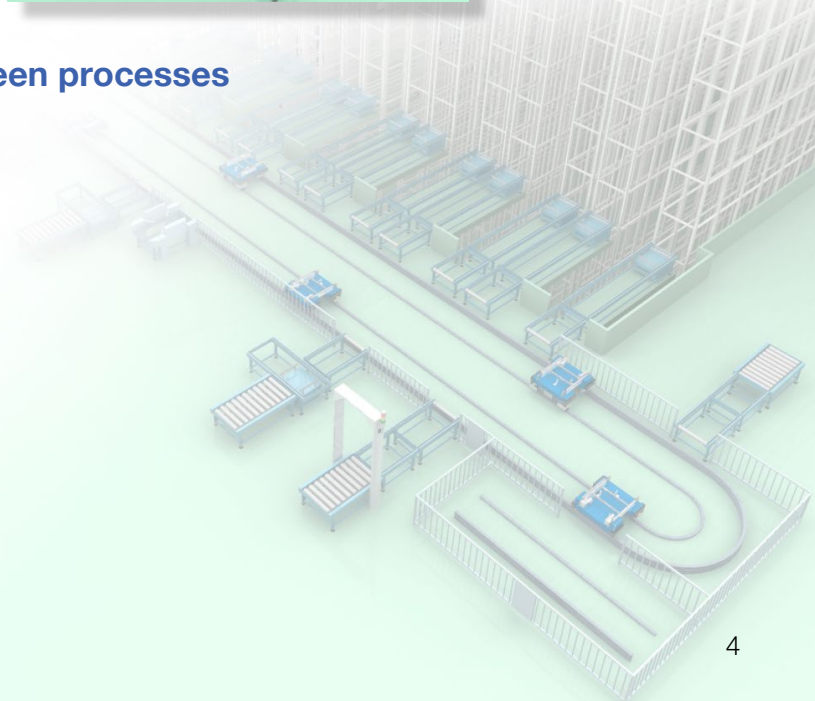
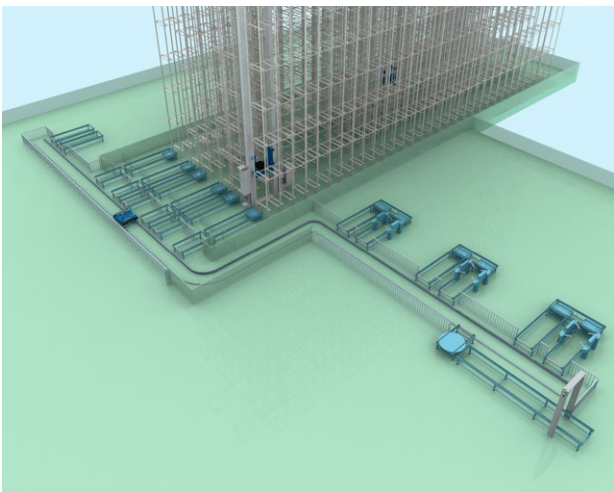
Sorting and transport to more than one station in front of AS/RS



Sorting capacity is improved by the dual system (2 vehicles on 1 rail).



Also active as a transport system between processes



Line-up

Various types of transfer units can be mounted and the most suitable type can be selected depending on purpose and use.

Chain conveyor type



Loading platform type



Roller conveyor type



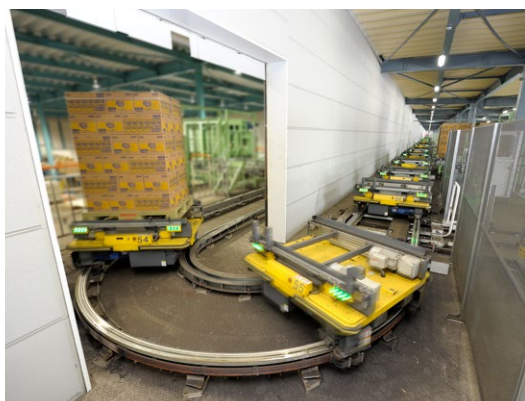
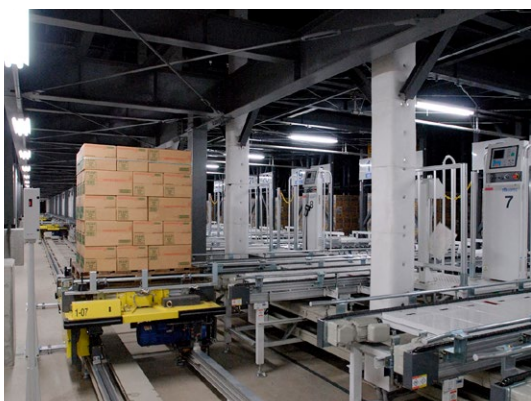
Slide fork type



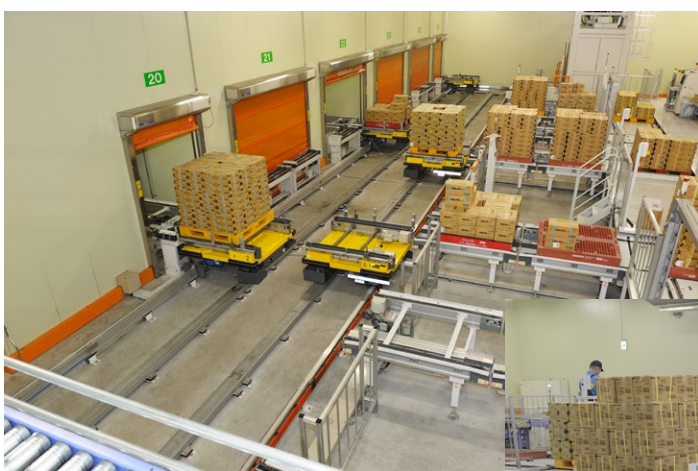
Basic specifications

Type		VX2-1000	VX2-1500	VX2-2000	VX2-3000
Rated load (Max.)		1,000 kg (2,200 lb.)	1,500 kg (3,300 lb.)	2,000 kg (4,400 lb.)	3,000 kg (6,600 lb.)
Traveling speed		250 m/min (820 ft./min)	200 m/min (656 ft./min)	160 m/min (524 ft./min)	125 m/min (410 ft./min)
Load transfer speed	High-speed transfer type	40,30 m/min (131,98 ft./min)	30 m/min (98 ft./min)	-	
	Standard transfer type	12 m/min (39 ft./min)			
Operating environment		Indoor normal (No hazardous gas, no dust particle, no volatile gas, no exposure to direct sunlight, illuminance of 30 ~ 75 lx or more)			
Temperature/ Humidity		Temperature:0 - 40 °C (32 - 104 °F)/ Humidity: 40 ~ 80 % (non condensing)			
Host communication method		Reciprocating layout including curve: LCX (Leaky coaxial wireless LAN) Loop layout: LCX (Leaky coaxial wireless LAN) Linear reciprocating layout: Optical transmission device			Optical transmission device
Communication between vehicles		LCX (Leaky coaxial wireless LAN), Optical transmission device			-
Power feeding method		Insulated trolley power feeding			
Remote controller communication method		Wired connection			
Power supply		3ø 200/220V 400V 50/60Hz			

Delivery cases



Goods receiving/shipping work and support in distribution center directly connected to Japanese largest beverage plant



Used for storage and retrieval between cold AS/RS and picking station in frozen food distribution center



Used for product storage to AS/RS and individual shipping of pallets in drug distribution center

MURATA MACHINERY, LTD. Logistics & Automation Division <http://www.muratec.co.jp>

MURATA MACHINERY, LTD.

International Business Dept.

Green-Bldg. 7F, 2-6-26, Kitahama, Chuo-ku, Osaka, 541-0041, JAPAN
TEL. +81-(0)6-6202-1387 FAX. +81-(0)6-6202-1388

MURATA SYSTEMS, LTD.

3, Kisshoin Minami-Ochiai-cho, Minami-ku, Kyoto, 601-8326, JAPAN
TEL. +81-(0)75-672-8320 FAX. 81-(0)75-671-5106

MURATA MACHINERY USA, INC.

Logistics & Automation Division

2120 Queen City Drive, P.O.Box 667609, Charlotte, N.C. 28208, U.S.A.
TEL. +1-704-394-6900 FAX. +1-704-394-2001
<http://www.muratec-usa.com/>

SALT LAKE CITY OFFICE

120 North Redwood Road Suite 3 North Salt Lake, UT 84054, U.S.A.
TEL. +1-801-683-3500 FAX. +1-801-683-3501

CIMCORP USA, INC.

1867-B McFarland Parkway Alpharetta, GA 30005, USA
TEL. +1-888-797-3703

CIMCORP AUTOMATION LTD.

635 South Service Road, Grimsby, Ontario L3M 4E8, CANADA
TEL. +1-905-643-9700 FAX. +1-905-643-9666

MURATA MACHINERY EUROPE GMBH

Hanns-Martin-Schleyer-Strasse 3, D-47877, Willich, GERMANY
TEL. +49-(0)2154-914-0 FAX. +49-(0)2154-914-188

CIMCORP OY

Satakunnantie 5, FI-28400 Ulvila, FINLAND
TEL. +358-10-2772-000 FAX. +358-10-2772-200

AGVE AB

Askims Industriväg 9, 436 34 Askim, SWEDEN
TEL. +46-(0)31-7483900

MURATA MACHINERY INDIA PRIVATE LTD.

NEW DELHI OFFICE (Registered Office)

1010, Hemkunt Tower, 98, Nehru Place, New Delhi, 110019, INDIA
TEL. +91-(0)11-2628-0046/47 FAX. +91-(0)11-2628-0048

MUMBAI OFFICE

Unit No.401, 4th Floor, Madhava Building, Bandra Kurla Complex, Bandra East, Mumbai, 400051, INDIA
TEL. +91-(0)22-2659-0275/76/77 FAX. +91-(0)22-2659-0280

COIMBATORE OFFICE

7-A1/A2, Avinashi Road, Thottiyapalayam Pirivu, Civil Aerodrome (P.O.), Coimbatore, 641014, Tamilnadu, INDIA
TEL. +91-(0)422-450-4184/85 FAX. +91-(0)422-450-4186

MURATA (THAILAND) CO., LTD.

3068 Mu 10, Sukhumvit 107 Road., Samrongnua, Muangsamutprakarn, Samutprakarn, 10270, THAILAND
TEL. +66-(0)2294-7734 FAX. +66-(0)2294-7732

MURATA MACHINERY SINGAPORE PTE. LTD.

69 Ubi Crescent #06-01, SINGAPORE, 408561
TEL. +65-6545-1228 FAX. +65-6545-2221

MURATA MACHINERY (SHANGHAI) CO., LTD.

806 Room, No. 666 West Huaihai Road, Changning District, Shanghai, 200050, CHINA
TEL. +86-(0)21-6372-3322 FAX. +86-(0)21-3331-3570

[Registry Add]

Room 1203A, Floor 12, Building 1, No.139, FuTeXiYi Road, China (Shanghai) Pilot Free Trade Zone, CHINA

BEIJING BRANCH

Rm.309 Yu Lin Bldg., Xiang Jun Nan Li Er Xiang Jia No.5, Chaoyang-qu, Beijing, 100020, CHINA
TEL. +86-(0)10-6597-8829 FAX. +86-(0)10-6591-1768

GUANGZHOU BRANCH

Room 1018, No. 238 Chang Gang Zhong Rd., Haizhu District, Guangzhou, Guangdong, 510250, CHINA
TEL. +86-(0)20-8434-2882 FAX. +86-(0)20-8434-3463

SHENZHEN OFFICE

Room 1503 A building, Yousongwuwu Dongfulong Garden, Longhua Street., Shenzhen, Guangdong, 518109, CHINA
TEL/FAX. +86-(0)755-2956-2683

SHANGHAI MURATEC AUTOMATION SYSTEMS LTD.

11F A-B Room, No. 659 Fengyang Road, Jingan District, Shanghai, 200041, CHINA
TEL. +86-(0)21-6327-6445 FAX. +86-(0)21-6327-6449

TIANJIN BRANCH

1508, International Center, Water Park North Road Luneng, Nankai District, Tianjin, 300380, CHINA
TEL. +86-(0)22-8702-8991/+86-(0)22-8702-8992 FAX. +86-(0)22-8702-8993

MURATA MACHINERY (H.K.), LTD.

Unit 502, 5/F., Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong, CHINA
TEL. +852-2332-0000 FAX. +852-2780-6340

MURATA MACHINERY TAIWAN, LTD.

18F., No.17, Sec.1, Chengde Rd., Taipei 10351, TAIWAN
TEL. +886-(0)2-2558-5505 FAX. +886-(0)2-2558-6606

HSIN-CHU SERVICE CENTER

6F.-1, No.1, Sec.3, Gongdao 5th Rd., East Dist., Hsinchu City 300, TAIWAN
TEL. +886-(0)3-561-0508 FAX. +886-(0)3-561-0515

TAICHUNG OFFICE

No.505, Sec. 1, Dunhua Rd., Beitun District, Taichung 40678, TAIWAN
TEL. +886-(0)4-2292-2325 FAX. +886-(0)4-2292-3515

TAINAN OFFICE

No.6, Zhongxin Rd., Xinshi District., Tainan City 74148, TAIWAN
TEL. +886-(0)6-589-1635 FAX. +886-(0)6-589-1634