Transport your data servers with autonomous precision & accuracy

AUTONOMOUS ORV2 AND ORV3 RACK MOVEMENT WITHIN DATA CENTERS

Transporting valuable and delicate data server racks can be a challenging task, but it doesn't have to be. The automated tugger combined with a customized dual bay server rack cart easily transports with accuracy and precision.

TAKE ON MORE

Each server rack cart has a load capacity of 7,000 pounds, supporting two servers at 3,500 pounds each. The tugger seamlessly connects to the cart through the hitch control mounted on the rear. Server racks are lifted off the ground to help transport safely and securely.

Powered by the automated tugger, the dual bay server racks can lift and lower ORV2/ORV3 data servers for transport.

IMPROVE SECURITY

Elevate your data center's security protocols with a system designed to provide safe and secure rack movement.

PRIORITIZE SAFETY

Boost comfort and the well being of your team with a solution that reduces physical strain and potential risks with rack movements.

ENHANCE EFFICIENCY

Increase productivity with a solution that helps to optimize your data center workflow.
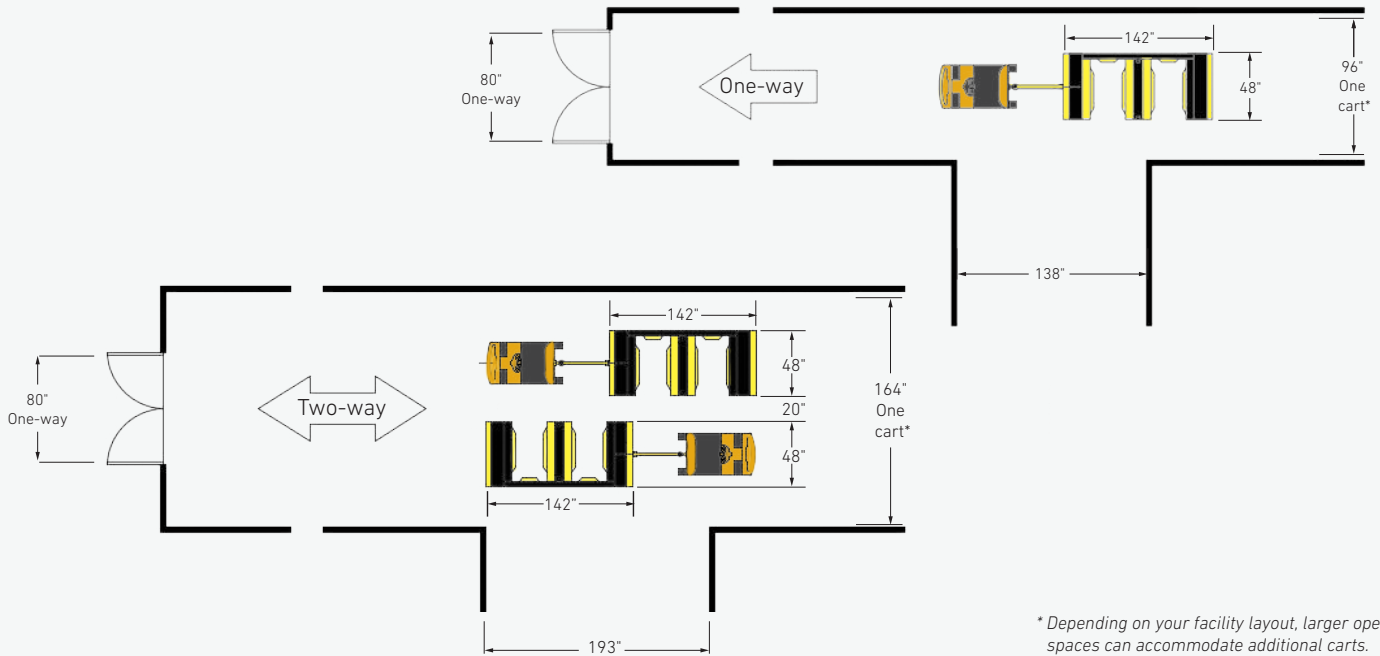
TACKLE COMPLIANCE

The automated tugger is compliant with ANSI B56.5 and UL 583 standards. Cart is NRTL certified, boosting safety and reliability.

Yale®

LIFT TRUCK TECHNOLOGIES

Horizontal transport best practices

for an automated tugger with customized data rack cart

80"
One-way

One-way

142"

48"

96"
One
cart*

138"

80"
One-way

Two-way

142"

48"

164"
One
cart*

20"

48"

142"

193"

Depending on your facility layout, larger operating spaces can accommodate additional carts.

AISLE WIDTH

- Single lane traffic:
  - cart width + 48" + 8" for each additional cart
  - turns: minimum aisle width 138"
- Two-way traffic:
  - cart 2x width + 48" + 20" center + 16" for each additional cart
  - turns: minimum aisle width 193"
- Any aisle under 158" will be reviewed with engineering
- Turn radius defined as route followed by ball hitch
- Turn radius for 90° turn should be minimum 79"
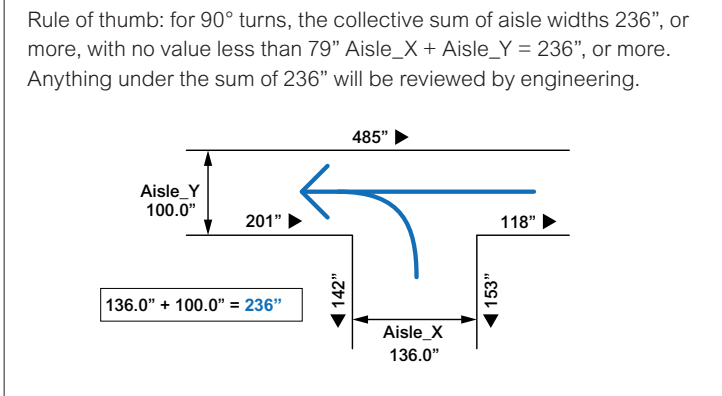- Turns greater than 90° will be reviewed with engineering

Rule of thumb: for 90° turns, the collective sum of aisle widths 236", or more, with no value less than 79" Aisle_X + Aisle_Y = 236", or more. Anything under the sum of 236" will be reviewed by engineering.

485"

Aisle_Y
100.0"

201"

118"

142"

153"

136.0" + 100.0" = **236"**

Aisle_X
136.0"

Illustration is for example only

DOORWAYS

- Single lane traffic minimum door width: 80" wide (32" + cart width)
- Two-way traffic minimum door width: 80" (anything less requires engineering review)

NAVIGATION

- Keeping navigation area clear of objects at nav sensor height (90.5")
- Auto charge docking station: preference for it to be installed along wall or large fixed structure. Anything different will be reviewed with engineering.

Contact us at robotics@yale.com

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