

**ARCHITECTURAL / ENGINEERING BULLETIN**

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Bulletin No. 2021-006

Bulletin Title: **Emergency Evacuation Chairs – Manual & Powered**

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**Background**

Emergency evacuation chairs provide a fast, safe and reliable means to ensure safe evacuation of persons with mobility challenges. The Design Professional of Record (AoR) providing design services for the Los Angeles Community College District (LACCD) shall reference – and are to include in their designs for new construction and major renovations – California Code of Regulation, Title 8, Section 3220, Emergency Action Plans.

**Directive**

Evacuation chairs are required for all LACCD Buildings/Facilities over one (1) story or with a basement requiring general access to regularly scheduled programs or services.

- One (1) manual emergency evacuation chair with lockable cabinet shall be provided at the top floor level at each exit stair (minimum for new construction).
  - See attached “Evacu-Trac” evacuation chair specification (with optional cabinet), or equal
- One (1) powered emergency evacuation chair shall be provided at basement level. When not in use, it shall be stored in a secure area. The secure area should be lockable and include labeling identifying the content.
  - See attached “Evacu-Trac” evacuation chair specification, or equal

During Programming+Project Criteria Phase, consider or as may be directed by the campus – adding a second emergency evacuation chair at the second floor exit stairs for buildings over four (4) stories.

Emergency Evacuation Chairs are considered Group 1 FF&E; and are to be purchased and installed by the contractor (CFCI).

The evacuation chair and cabinet should be placed near the exit stair; and the storage or secure area cabinet placement shall not intrude into the accessible path of travel.

Refer to manufacturer's specifications for stairway clearances and maximum stair slope requirements.

**Note**

- Colleges are standardized on Garaventa Lift (exception for Los Angeles Trade Tech - Stryker is the standard).
  - Garaventa Lift “Evacu-Trac” is the most commonly procured item for the District and may be purchased directly from the manufacturer – Garaventa Lift / 866-824-8314 / Contract #40488
  - Stryker Evacuation Chair 6254 – Stryker Sales Corporation / 424-289-5614 / Contract #40472
- For existing buildings, stairwell clearances must be verified that existing conditions will support the operation of the specified evacuation chair.



## **Specifications for an Emergency Evacuation Chair**

### **1.1 Model Type**

The emergency evacuation chair shall be a Garaventa Evacu-Trac CD-8

### **1.2 Descent Speed Control Mechanism**

The emergency evacuation chair shall be equipped with a hydraulic speed governor that controls the descent speed to a range that is safe for the passenger and the operator. Descent speed may vary slightly based on passenger weight and stair angle. As a standard measurement, on a stair slope of 35 degrees and with a passenger of 220 lbs. (100kg), the speed control mechanism shall limit the descent speed to a maximum of 3.6 ft/sec. This descent speed control mechanism shall limit the maximum speed regardless of the operating environment or strength and size of the operator.

### **1.3 Rubber Track Design**

The emergency evacuation chair shall have rubber crawler tracks to grip the stair noses. The tracks shall have lugs or teeth to ensure positive traction with the stair noses. The rubber crawler tracks shall have integrated steel wires that minimize the likelihood of stretching or breakage.

### **1.4 Carrying Capacity and Stair Angle**

The emergency evacuation chair shall be able to carry passengers weighing up to 400 lbs (180kg) and capable of stopping on the stairway at full weight capacity. The device should be capable of operating on a stair slope of up to 40 degrees.

### **1.5 Passenger Size Accommodation**

The emergency evacuation chair shall be designed to not unduly limit the physical dimensions of passengers that can be carried. The seating sling shall be open on the sides and shall not be designed with bars that surround or restrict the seating area.

### **1.6 Passenger Restraining Straps**

The emergency evacuation chair shall be equipped with three (3) safety straps to ensure the passenger will be securely restrained in the chair. The safety straps shall secure the passenger's legs, mid-section, and chest and arms.

### **1.7 Parking Brake and Stability on Flat Surfaces**

When occupied by a passenger, the evacuation chair must be able to remain stable and stationary when left unattended on flat surfaces. The evacuation chair shall include a brake system that will prevent it from rolling when unattended in the parked position.

### **1.8 Emergency Brake and Stability on Stairs**

The emergency evacuation chair shall be equipped with a secondary, fail-safe, emergency braking system, in addition to the main speed control system. While a passenger occupies it, the chair must be able to come to a complete stop on the stairway without any special effort being exerted by the operator. The brake must operator in a failsafe manner, activating if the operator was to accidentally let go of the handle. It shall be capable of remaining in the stopped position unattended (if required). The evacuation chair shall be able to go from a speed of 3.6-ft per/sec (1.1 m/sec) to a complete stop within 1 second, without assistance from the operator.

### **1.9 Ease of Transfer**

The emergency evacuation chair must be designed so that in the majority of instances, one person trained in proper transferring procedures can single-handedly transfer the passenger into it from a wheelchair. The evacuation chair's seating position shall not be higher than 12 inches from the floor to the lowest point of the seat sling. The evacuation chair shall be designed with open sides (without sidebars) to make the transfer of the passenger easy.

**1.10 Usability and Operator Size / Strength Requirements**

The emergency evacuation chair shall be operable, down stairs and across landings with a passenger in place, by one person who has a smaller physical size than the passenger. Size and strength of the operator shall not be a factor in safe operation of the chair.

**1.11 Weight of Evacuation Device**

The weight of the chair shall not exceed 53 lbs (24 kgs).

**1.12 Seating Material**

The seating material shall be composed of fire-retardant fabric.

**1.13 Storage Cabinet (Optional)**

Each evacuation chair shall be supplied with a steel cabinet that will be used to store the evacuation chair when not in use. The storage cabinet shall include labeling identifying the contents. The storage cabinet shall be 45.3 inches (1151 mm) high, 20 inches (508 mm) wide, and 11 inches (279 mm) deep.

**1.14 Warranty**

Product shall be warranted against defects in design and workmanship for a period of fifteen years (15) from the date of delivery and installation in the facility.

This specification has been prepared by Garaventa Lift to provide design and operational criteria for emergency evacuation chairs.

Please address any questions or comments to:

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Trac Product Sales Manager  
Garaventa Lift  
P.O. Box 1769, Blaine, WA 98231-1769

Toll Free: (866) 824-8314 (within the USA and Canada)  
Email: [tracproducts@garaventallift.com](mailto:tracproducts@garaventallift.com)



## EVACU-TRAC

EMERGENCY EVACUATION CHAIR



**Is this your solution  
to emergency evacuation?**

The Evacu-Trac by Garaventa Lift is an evacuation chair used to move people with a disability or injury down stairways quickly and safely during an emergency. Patented speed governor and braking system allow a small attendant to easily evacuate a larger passenger. It folds compactly when not in use.

[www.evacutrac.com](http://www.evacutrac.com)

The Evacu-Trac is simply the best evacuation chair on the market today.

It is easy for the operator to use and is comfortable for the passenger. This encourages regular practice drills, considered essential to emergency preparedness.

Exclusive safety features set Evacu-Trac apart:

- Hydraulic Speed Governor
- Failsafe Braking System - STOPS AND HOLDS A FULLY LOADED EVACU-TRAC ON THE STAIRS!

- 1 Failsafe Braking System**
  - stops and holds Evacu-Trac on the stairs
  - acts as a parking brake on flat surfaces
  - engaged automatically when the operator releases the brake bar
- 2 Open sides for easy transfer**
  - many passengers are able to transfer themselves
  - open sides and low seating position allow for easy patient transfer in an emergency
- 3 Comfortable**
  - comfortable seating position for passengers of various sizes
  - Good support for passenger's head, back, hips, legs and feet
- 4 Hydraulic speed governor**
  - controls decent speed mechanically
  - exclusive Evacu-Trac safety feature
- 5 Steel reinforced tracks**
  - hundreds of steel wires molded in to rubber tracks ensure strength and durability
  - lugs on tracks grip stairs securely
- 6 Auxiliary wheels**
  - allow for easy movement around corners and across flat landings
- 7 Adjustable straps**
  - three safety straps hold passenger securely
  - adjustable straps with velcro ensure passenger comfort and safety
  - straps secure passengers of various sizes, including children
- 8 Head restraint system**
  - padded headrest and adjustable restraint strap allow for safe evacuation when head support must be maintained
- 9 Auxiliary handles**
  - for additional stability
  - used by a secondary operator to evacuate bariatric passengers weighing over 300 lbs (136 Kg)



[www.evacutrac.com](http://www.evacutrac.com)

In an emergency such as a fire or an earthquake, elevators should not be used. People with limited mobility may be trapped. Evacu-Trac provides a lifeline to safety.

During an emergency, the passenger is transferred from their wheelchair to the Evacu-Trac. Once positioned in the Evacu-Trac, velcro straps are wrapped securely around the passenger's torso and lower legs.



During descent the passenger sits in a comfortable, upright position, securely held by three safety straps.



If stopping on the stairway during evacuation becomes necessary, the fully loaded Evacu-Trac will stay stationary and stable on the stairs without any support from the operator.

### Evacu-Trac Storage Cabinet

Protect your Evacu-Trac, as you would any other important life-safety equipment, by storing it in a steel storage cabinet located near the top of the stairway. Designed to hold a single Evacu-Trac, the storage cabinet includes graphics clearly identifying the contents.

### Storage Cabinet Dimensions

Height.....1151mm/45.3in  
Width.....508mm/20.0in  
Depth.....279mm/11.0in



[www.evacutrac.com](http://www.evacutrac.com)



## EVACU-TRAC - Emergency Evacuation Chair

### Want to See How an Evacuation Chair Works?

To receive your free copy of the Evacu-Trac training video  
Toll Free (N.A.): 1 (866) 824-8314  
email: [productinfo@evacutrac.com](mailto:productinfo@evacutrac.com)



### Evacu-Trac Dimensions & Specifications

Capacity.....180kgs/400lbs  
Speed.....1.1m(3.6ft)/sec\*  
Stair Angle.....40° Max.  
Weight.....21.8kgs/48lbs

#### Size Open

Length.....1310mm/51.6in  
Width.....426mm/16.8in  
Height.....810mm/31.9in

#### Size Folded

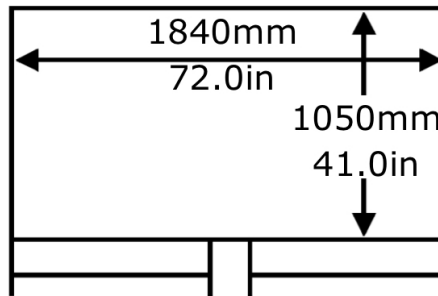
Length.....1100mm/43.3in  
Width.....426mm/16.8in  
Height.....270mm/10.6in

### Buyer Beware!

Not all evacuation chairs are created equal. The Rehabilitation Engineering & Assistive Technology Society of North America (RESNA) has issued a Position Paper on the use of evacuation chairs. The paper outlines the different types of evacuation chairs and concludes that, "track-type evacuation chairs offer distinct advantages...(which) help promote safe, efficient evacuation during emergencies".

### Clearances

The diagram below shows typical clearances required on turnback stairways. Actual requirements may vary depending on stairway configuration.



### Contact us today!

Phone: (604) 594-0422  
Toll Free (N.A.): 1 (866) 824-8314

Email: [productinfo@evacutrac.com](mailto:productinfo@evacutrac.com)  
Web: [www.evacutrac.com](http://www.evacutrac.com)  
Corporate: [www.garaventlift.com](http://www.garaventlift.com)



Authorized Garaventa Lift Representative



# Evacuation Chair





## Evacuation Chair

### The complete evacuation solution

Emergencies often arrive unexpectedly. In that moment, preparedness is key. Are you prepared to evacuate occupants from your facility when facing an emergency? Stryker is ready to help you with the experience and equipment you need to manage emergencies effectively — introducing, Stryker's Evacuation Chair.

Our Evacuation Chair gives you the power to evacuate disabled or injured persons weighing up to 500 pounds, from multilevel facilities in emergency situations. Stryker's patented Stair-TREAD system assists in an easy descent down stairs by a single operator, with passengers weighing up to 200 pounds. Our extendable head and foot end lift handle design supports proper ergonomic lifting technique, while improving line of vision to feet and steps when lifting the chair on stairs or over obstacles.

Emergency situations are often a surprise, build confidence and peace of mind knowing that you are prepared. With Stryker's Evacuation Chair, you have the power to mitigate emergencies. Preparedness, it's a powerful thing.

#### Features and benefits

- Assists in evacuation of disabled or injured persons from multilevel facilities
- Stair-TREAD tracked system enables one person to control descent down stairs for passengers weighing 200 pounds or less
- Exceeds fire safety requirements and emergency response guidelines established to support the Americans with Disabilities Act
- Extendable head and foot end lift handle design supports proper ergonomic lifting technique, while improving line of vision to feet and steps when lifting the chair on the stairs or over obstacles
- Designed to maximize mobility in tight spaces
- Folds to compact size for convenient storage

#### Restraints

with Fastex buckles for passenger security

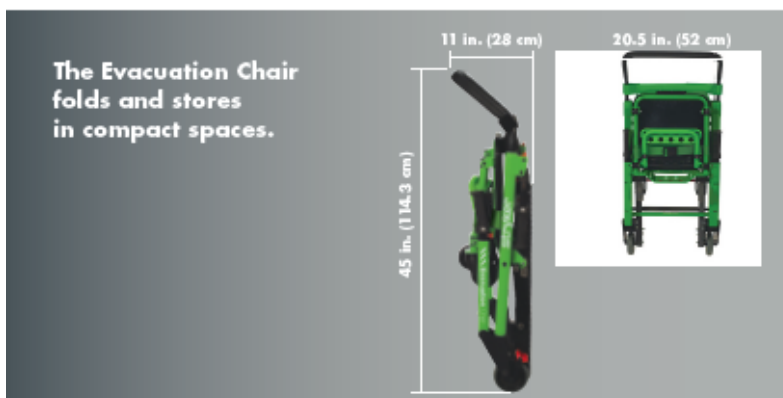
#### Contoured seat for comfort

#### Foot end lift handles

extend for ergonomic lifting

#### Foldaway foot support

provides additional passenger security and stability





## Accessories



**Wall mount**  
6254-050-000



**Foot support**  
6254-029-000



**In-service video**  
6253-001-167



**Alarm**  
6254-045-000



**Chair cover**  
6254-055-000



**Storage cabinet**  
6254-002-000



**O<sub>2</sub> holder**  
6250-140-000



**Aggressive Stair-TREAD Belt\***  
6253-070-000

### Optional Aggressive Stair-TREAD Belt available

\* The Aggressive Stair-TREAD Belt is designed to improve the grip of the Stair-TREAD system on steps that have a smooth surface with a rounded edge. To determine if the Aggressive Stair-TREAD Belt is appropriate for your application, please refer to the Aggressive Stair-TREAD Belt specification sheet at [www.stryker-evacuation.com](http://www.stryker-evacuation.com) or contact your local Evacuation consultant.

## stryker

### Specifications

#### Evacuation Chair

<b>Model number</b>	6254-000-000
<b>Height</b>	45 in. (114 cm)
<b>Width</b>	20.5 in. (52 cm)
<b>Depth</b>	28 in. (71 cm)
<b>Folded depth</b>	11 in. (28 cm)
<b>Weight</b>	34 lb (15.5 kg)
<b>Max. weight capacity</b>	500 lb. (228 kg)

#### Foot support

<b>Foot support option part number</b>	6254-029-000
<b>Foot support retrofit kit part number</b>	6254-700-001
<b>Step height from floor</b>	4.5 in. (11.4 cm)
<b>Floor clearance</b>	2.25 in. (5.7 cm)
<b>Width</b>	12.25 in. (31.1 cm)
<b>Depth</b>	3.5 in. (8.9 cm)

#### Evacuation chair cabinet

<b>Model number</b>	6254-002-000
<b>Height</b>	47 in. (119.4 cm)
<b>Width</b>	23.75 in. (60.3 cm)
<b>Depth</b>	10.25 in. (26 cm)
<b>Weight</b>	42 lb. (19 kg)

### Customer support services

#### Chair payment plans

Stryker provides payment options that make our equipment as easy to acquire as it is to use. Payment plans allow you to keep current with equipment needs, reducing the risk of obsolescence or inefficiency. At the same time, you stabilize operating costs while preserving other credit resources.

- Equipment delivered at the start of the plan
- Flexible plan options to meet your operating needs
- Service and other support related costs can be added to your lease plan
- Payment options include annual, quarterly, monthly, stepped or deferred arrangements

#### Chair trade-ins

Trade-in your existing gear. Allowances are promptly determined depending on age and condition of products. Talk to your Evacuation Consultant for details.

#### Trials

Test drive Stryker products in your own operation, at no cost. You'll realize how wise and easy it is to invest in Stryker Evacuation performance. Talk to your Stryker account manager for details.

#### Training

Stryker training programs ultimately help facilitate the successful operation and familiarization of your products. Stryker offers complete training programs including train-the-trainer for your staff. Tailored to meet your needs, training can be conducted at your facility or at a Stryker-designated site. For more information or to schedule a training session, contact your local sales representative. Evacuation consultants can be located at [ems.stryker.com](http://ems.stryker.com).

#### ProCare Service

Dependable, high-quality products are only the beginning of the Stryker commitment to customer satisfaction. World-class customer service and technical support programs help keep every product in top condition throughout its life span.

#### Programs Include:

- ProCare
- Stryker authorized service vendors
- Certified technician training

#### Guarantee

With no reservations, you can purchase the equipment you need. If you are unsatisfied, we offer a 30-day money back guarantee.

Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: ProCare, Stryker. All other trademarks are trademarks of their respective owners or holders.

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[ems.stryker.com](http://ems.stryker.com)

#### Vendor Address

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