

SPEC ■ DATA

Borroughs Corporation

1. Product Name

Aisle-Saver® Synergy Series™ High Density Mobile Storage

- Electrical Aisle-Saver System
- Mechanical Assist Aisle-Saver System
- Manual Aisle-Saver System
- Lateral Aisle-Saver System

2. Manufacturer

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3. Product Description

BASIC USE

Aisle-Saver high density mobile storage systems deliver safe, reliable performance. These state-of-the-art systems are available in electric, mechanical assist and manual models. Each model will reduce and reclaim space by eliminating all but the aisle in use. In addition to maximizing space, Aisle-Saver systems provide a remarkably economical way to defer moves, reduce expenditures, improve productivity and morale and increase security.

Aisle-Saver systems have been designed for:

- Law libraries
- Public and private libraries
- Museums
- Government offices
- Medical records storage
- Fine art and archaeological storage
- Archival and media storage
- Back-room storage
- Herbarium cabinets
- Files and folders
- Parts and supplies

ELECTRICAL AISLE-SAVER SYSTEM

The Electrical Aisle-Saver System features solid state electronics that ensure fast installation, improved reliability and enhanced safety. The company's "plug-and-play" components save time and money on initial installation. The system's "smart" technology provides advanced functionality for improved performance and a closer relationship between the operator and the system. Programming flexibility allows users to easily customize the system to achieve the desired level of safety and

security. Also, the software can be upgraded as additional functionality becomes available.

Standard features include:

- No limit switches or plungers - minimizing potential for mechanical failure
- Soft start and stop for extended motor life and storage media protection
- Safety activation stops unit movement immediately
- Sequential carriage movement minimizes power consumption
- No keys or transponders required for programming or operation
- Available with patented Light Carpet® safety system
- Electrical systems are UL listed
- Meets applicable ADA requirements for accessibility
- Touch screen activation system

CONTROLS

The Electrical Aisle-Saver System comes with two control pads:

- Electronic aisle control pad -
Designed for easy operation, this touch pad control requires no special programming or training for new users. All system functions are clearly displayed and are easy to understand, with no moving parts to fail. The simple press of a button opens a 36" (914 mm) wide aisle in 8 seconds
- LCD master control pad -
This easy-to-use numerical touch pad features controlled/keyless entry. The LCD screen displays a menu to access and control all system functions. When used with optional safety systems, the screen indicates system status to show the location of any obstruction within the system. The system will not close unless it is cleared and the control is reset.

PROGRAMMING

- Aisles can be reconfigured to accept any depth of media
- The supervisory override controls all system features and permissions
- Security levels can be set to prevent unauthorized entry
- Unit can be programmed to reset automatically or manually at user option
- No reprogramming is necessary if power is interrupted
- Aisles can be locked down for convenience during peak periods



Electrical Aisle-Saver System

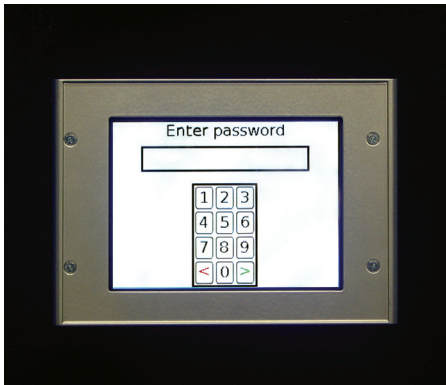
COMPATIBILITY

The Electrical Aisle-Saver System can interface with any known electromechanical safety device. Integration with building environmental systems, such as fire suppression, alarms and HVAC, can provide an automated response to changing conditions or establish off-hour positioning.

OPTIONS & ACCESSORIES

The patented Light Carpet safety system from Borroughs combines an array of infrared sensors with logic circuits to track personnel and objects from the time they enter the system until they exit. Light Carpet sensors are placed 3" (76 mm) below the carriage along its entire length. This feature makes it virtually impossible to inadvertently close an aisle on a person or valuable object, and it is not susceptible to heat or load conditions. Even if a person climbs up on a shelf, the system will not deactivate until the person breaks the beam by exiting the aisle or the system is manually reset.

The Electrical Aisle-Saver System incorporates multiple levels of active and passive safety devices. Configure the options as necessary for each project.



LCD Master Control Pad

Options include:

- Power assist mode - Provides a basic level of safety by requiring the user to maintain a hold on the control button or all carriage movement stops
- Aisle threshold protection - Stops carriage movement as aisle is entered
- Light Carpet - A series of infrared sensors, running the entire length of the system, which prevents an inadvertent aisle closure on a person or object
- Carriage infrared sweeps - They run the entire length of the carriage, at the leading edge, to detect persons or objects in the aisles
- Fire park position - Can be set to open or close carriages at user option, depending upon local codes
- Motion/infrared detection - Sensors control carriage movement by detecting movement or heat
- Manual reset - Requires the key to be pressed after each carriage movement
- Anti-tilt system - Available to meet seismic requirements where applicable or required
- Time delay movement - Provides a 5 second delay prior to carriage movement. Can be used with optional warning horn or safety beacon
- Safety beacon light - Provides visual indication of an aisle opening
- Warning horn - Provides an audible signal indicating carriage movement
- Safety bypass - Allows the administrator to override system safety features by entering security codes
- Emergency movement options - Provide manual mechanical override in the event power failure.

The Electrical Aisle-Saver System can be custom configured with a wide range of optional convenience and security features, including:

- Uninterrupted power supply - Provides back-up in case of power outage
- Dual controls - Allow keypad operation at both ends of the system
- Automatic aisle lighting - Can be activated upon aisle opening
- Carriage lock - Allows multiple users at the same time. Selected carriages may remain open during high traffic periods or remain closed for security
- Aisle lock - Moves carriages together, closing to selected aisles
- Timed recycle - Can be set to automatically open and close aisles
- Timer close - Will automatically close an occupied aisle after a preset interval since last movement. Can also be integrated with building security system
- Key close access - Allows supervisor, at the master control pad, to assign varying levels of accessibility to individual aisles or the entire system
- Multiple motors - Can be installed to allow for extra carrying capacity or if needed for longer carriages

MECHANICAL ASSIST AISLE-SAVER SYSTEM

This unit incorporates a direct chain drive system that transfers the force from the 3-spoke handle directly to the drive shaft, which in turn drives every wheel on one side of each movable carriage. A visual safety knob is located above the handle and is used to lock the carriages on either side of the open aisle.

Standard features include:

- Superior aesthetics - Clean lines, no exposed fasteners
- Ease of carriage movement - 1 lb (4.4 N) of effort moves 6000 lb (2721 kg) of storage
- Safety lock feature for operator protection
- Easy maintenance without unloading stored materials
- All exposed metal surfaces are painted

Options

- Other gear ratios
- Accommodates most shelving, cabinets or racks



Carriage Control Pad

MANUAL AISLE-SAVER SYSTEM

Designed as the economical alternative to mechanical assist and electrical units, the manual movable unit from Borroughs is perfect for lighter weight products. With these manual movable carriages, 1 lb (4.4 N) of effort moves 3000 lb (1361 kg) of storage.

Safety and security features, such as anti-tilt, passive aisle locks and key-operated carriage locks, can also be added.

LATERAL AISLE-SAVER SYSTEM

This system is particularly well-suited for perimeter wall installations or narrow spaces where other forms of storage are unsuitable. Lateral sections move easily for complete access. Carriage sections can also be easily re-configured to move as functional requirements and office configurations evolve.

FINISHES

All Aisle-Saver carriages, frames and skins are available in 21 standard Borroughs powder coat colors or in custom colors to match any decor. End panels are available in painted steel or in a variety of laminates, wood, fabric or custom inserts. Half-height skins and frames are also available.

SPEC DATA



Mechanical Assist Aisle-Saver System

4. Technical Data

APPLICABLE STANDARDS

Underwriters Laboratories, Inc. (UL)

PHYSICAL/PERFORMANCE PROPERTIES

Electrical Aisle-Saver System

- Power supply - 115 VAC, 50/60 Hz
- 24 V DC 1/7 hp motor (UL listed)
- Load - 1000 lb/lineal foot
- Carriage lengths - 3' - 60' (0.9 - 18 m)
- Carriage widths - 15" - 60" (381 mm - 1.5 m)
- 36" (914 mm) aisle opens in 8 seconds

Mechanical Assist Aisle-Saver System

- Manual controls
- Load - 1000 lb/lineal foot
- 1 lb (4.4 N) effort moves 3000 lb (1361 kg)
- Carriage length - 3' - 45' (0.9 - 13.7 m)
- Carriage width - 15" - 60" (381 mm - 1.5 m)

Manual Aisle-Saver System

- Load - 1000 lb/lineal foot
- Carriage length - 3' - 10' (0.9 - 3 m)
- Carriage width - 15" - 60" (381 mm - 1.5 m)

Lateral Aisle-Saver System

- Double or triple row units
- Section widths - 3', 3.5' or 4' (0.9, 1.1 or 1.2 m)
- Carriage depths - 10", 12", 13.2", 15" or 18" (254, 305, 335, 381 or 457 mm)
- Unlimited module width
- Non-slip ramp and matting

5. Installation

PREPARATORY WORK

Handle and store products according to Borroughs recommendations.

Deliver and store products protected from exposure to harmful environmental conditions and at temperature and humidity conditions as recommended by the manufacturer.

Verify that site conditions are acceptable for installation of products. Do not proceed with installation until unacceptable conditions are corrected.

METHODS

All units must be installed with factory trained supervision in accordance with manufacturer's written instructions. All tracks must be leveled and all tracks and floor must be filled with fast setting grout to form a solid base. All tracks must be anchored to the floor.

BUILDING CODES

Current data on building code requirements and product compliance may be obtained from Borroughs technical support specialists. Installation must comply with the requirements of all applicable local, state and national code jurisdictions.

6. Availability & Cost

AVAILABILITY

Aisle-Saver High Density Mobile Storage Systems are available worldwide through authorized dealers. Borroughs dealers are factory trained filing and storage experts.

Contact Borroughs at (800) 748-0227 or visit the website, www.borroughs.com, to find the nearest dealer.

COST

Budget installed cost information may be obtained from a Borroughs dealer.

7. Warranty

Aisle-Saver Systems are warranted for 5 years on mechanical systems and 14 months on electrical systems (not including labor).

Contact Borroughs Corporation for complete warranty details.

8. Maintenance

All bearings are sealed and are lifetime lubricated and should require no further maintenance other than periodic, annual or biannual, audio and visual inspection.

Check all mechanical assemblies/linkages and especially safety devices for functional integrity. Lubricate as necessary. Annual or biannual inspections should be made, based on usage of equipment.

After system is loaded and functional, crank chain tension should be checked within approximately 1 - 3 months and thereafter annually, depending on usage of the system.

Track, deck and ramp should be inspected daily and kept free of dirt and debris.

Operate all movable carriages and observe for tracking and ease of movement.

Check any and all options to ensure proper operation. Inspect shelving and racking for structural integrity, and/or damage. Safety labels should be checked for legibility; replace if necessary. When dusting, use a soft, damp cloth void of any abrasive material.

9. Technical Services

Borroughs offers one-of-a-kind technical support for shelving systems. The Technical Support Group is dedicated to the development and implementation of large-scale shelving projects. The group's first responsibility is to help customers develop a cost-effective shelving system that meets both current and future storage needs. Borroughs has developed Configura® software, which can generate a photo-like 3-D view, complete parts listing and itemized quotation. Available services include:

- Competitive turnkey estimates for any shelving project
- Necessary field measurements
- Detailed submittal drawings
- Engineering stamp, when required
- Final bill of material
- A buildable mix of product to facilitate an uninterrupted installation process
- Complete installation service for shelving and mezzanine systems
- If installation is by others, Borroughs will review the project with the contractor and be onsite for start-up