



Product Catalog

For More Information
on our complete line of
Stagemaker® Concert Hoists
visit us at
www.stagemaker.com

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R&M Materials Handling, Inc. is a proud
member of the following organizations:



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Welcome
to the world of
STAGEMAKER®

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Welcome
to the world of

STAGEMAKER®



STAGEMAKER[®] concert hoists are designed to handle stage and theatrical equipment and enable the safe and accurate positioning of speakers, lighting systems, stage sets, and sceneries. The features and options of the **STAGEMAKER**[®] concert hoist make it the best choice for a demanding customer. Its low weight makes it ideal for touring events. Its compact size permits it to fit inside truss structures. Its quietness makes it ideal for operation during performances, even in theaters. Its CE mark and CSA c/us certification* ensure the quality process.

R&M Materials Handling, Inc. is synonymous with state of the art technology, uncompromising safety, and product reliability. This is the result from 75 years of innovation. It is no coincidence that **STAGEMAKER**[®] introduced the first concert hoist, the **LITACHAIN L104**, solely dedicated to the entertainment industry in 1975.

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STAGEMAKER[®]

* May not be available on all models or configurations. Refer to the Stagemaker[®] technical guide for more information.

STAGEMAKER[®]

concert hoists

Our product's amazing characteristics and features truly open the gates to creativity and inspiration.

STAGEMAKER[®]... staging the future.



standard features*

- Class F hoisting motor insulation
- Enhanced safety with combined hoist brake and load limiter
- Electromagnetic DC disc brake
- Power supply: 208V/230V - 3Ph - 60 Hz
- Swiveling body hook (except SM1, fixed body hook)
- Compact dimensions
- Hoist housing made of injection-cast aluminum
- Black lifting chain
- Load wheel with 5 pockets
- CHAINFLUX chain guide system with horizontal output
- Matte black painted (RAL 7021)
- Ergonomic handles for easy transportation
- Inverted or Normal Position
- High-capacity chain bag
- Low noise level, less than 75 dB

ERGONOMIC HANDLES*
High strength, extremely flexible handles made of 1" wide rugged nylon with rubber hand grips are included on all inverted hoists. The nylon construction provides the flexibility needed in the entertainment industry and the rubber hand grip ensures the rigger's hold on the hoist.

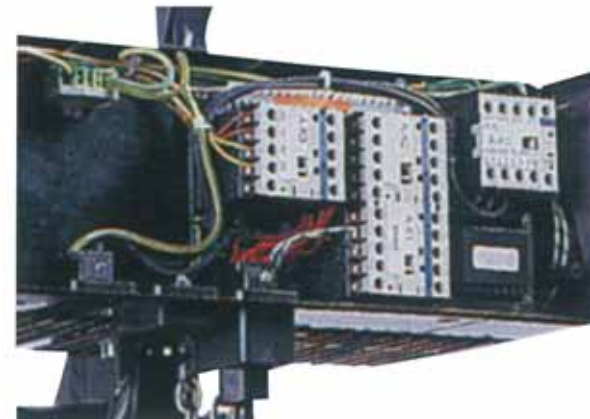


QUIET & COMPACT

The revolutionary gearbox contributes to the exceptionally low noise level, less than 75dB, and compact design of the hoist.

EASY MAINTENANCE

Large integral steel* panel encloses all electrical components and offers space for additional options. The panel also provides easy access for maintenance operations (IP55 / NEMA 3R).



SAFE, SMOOTH OPERATION

The heat treated load wheel with 5 full pockets is machined in a single production step. The 5 pocket load wheel minimizes chain stress while ensuring smooth operation. A one piece internal chain guide and external chain guide prevent the chain from jamming, no matter what the position of the hoist.



CHAIN BAG*

High-capacity, high strength, removable chain bag made of high grade black fabric, 900 deniers, and reinforced with 1" wide rugged nylon strips is included on all inverted SM5's and SM10's.



hoist options*

- Built-in incremental encoder
- Built-in load monitoring system
- Electronic load limiter
- Pickle control
- 2nd brake
- BGV-C1 hoists
- Geared limit switch (2 or 4 cams)
- Very-low control voltage (48 V)
- Hour counter
- Self-locking hook
- Drain hole
- Fixed body hook
- Pigtails
- Rain cover
- Single-phase 115V-1Ph-60Hz
- Normal position only
- Micro-switch limits (block operated)

STAGEMAKER® innovations

CHAINFLUX - innovation, the natural flow

Constantly improving and adapting its products to market needs
(R&D through close cooperation with the entertainment industry).

R&M is proud to present its NEW STAGEMAKER® CHAIN GUIDE (available on inverted SM5 and SM10).

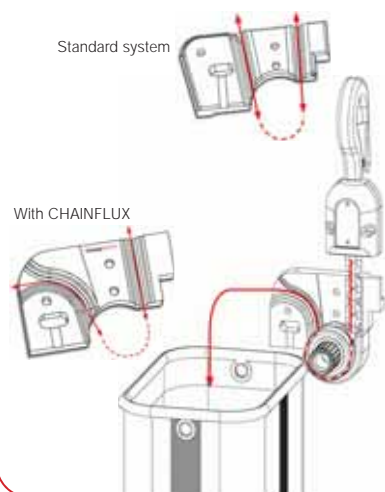
new concept

Its special shape provides a much more fluid horizontal flow of the chain as it comes off of the load wheel and into the chain bag.



material

High strength industrial polyamide chain guide provides a remarkably low friction coefficient, facilitating passage of the chain on ejection.



many technical advantages

A number of technical advantages are provided by this new innovative ejection system:

- Prevents chain jamming at the upper part of the hoist as the chain comes out.
- The slack side of the chain has no influence on the internal transmission of the hoist.
- Avoids any possibility of jamming due to twisting of the chain.
- Optimizes chain introduction in the chain bucket.
- Reduced contact area between hoist body and chain which reduces wear.

innovative double brake on SM16/20/25

The power of the SM16/20/25 Stagemaker® and the safety of a double brake:

- 10:1 safety margin for a 1 metric ton single fall unit
- Unique safety equipment:
 - The first brake is placed after the load limiter and the second on the driving gear of the chain.
 - This unique "holding brake" type device on the driving gear of the chain prevents all slip or dropping of the load when the hoist is stopped.



Double brake on SM16, 20 & 25



SM5 and SM10 body hook with built-in overload sensor



SM5 with double brake



SM 5 configuration A ACF board and electrical cubical



STAGEMAKER

controllers Configuration C - Raynok*

programmable control system - single speed

Stagemaker® Configuration C hoists used with a Programmable Controller allow you to pre-program cues and control hoists individually, simultaneously or by groups. Ideal for live performance venues, television and film studios, casino showrooms, boardrooms, convention facilities, and sporting complexes.

Third party controllers and software, such as Niscon, Inc's Raynok Motion Control System maximize the capabilities of Stagemaker® Configuration C hoists. Raynok's software allows the creative and technical teams to create fluid scenic imagery. Utilizing common Windows™ XP commands, Raynok makes learning basic and advanced programming and cueing easy and intuitive. Drop down menus, right mouse button menus, toolbars, and a customizable multi-monitor graphic display aid the operator in configuring a comfortable desktop workspace.

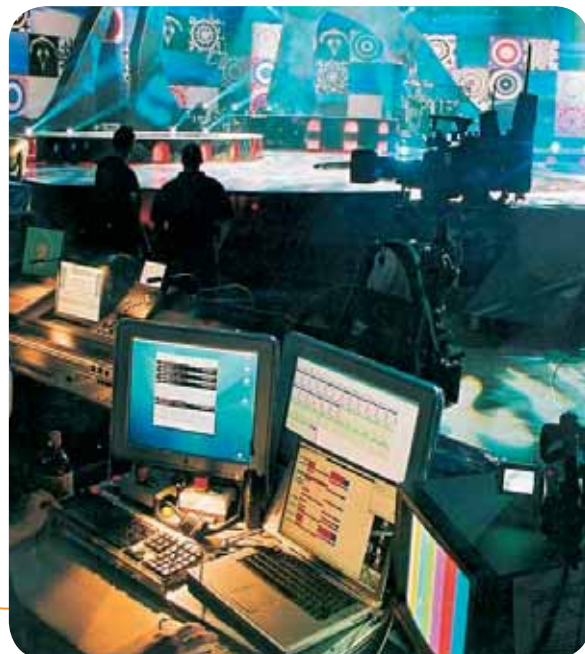


hoist features

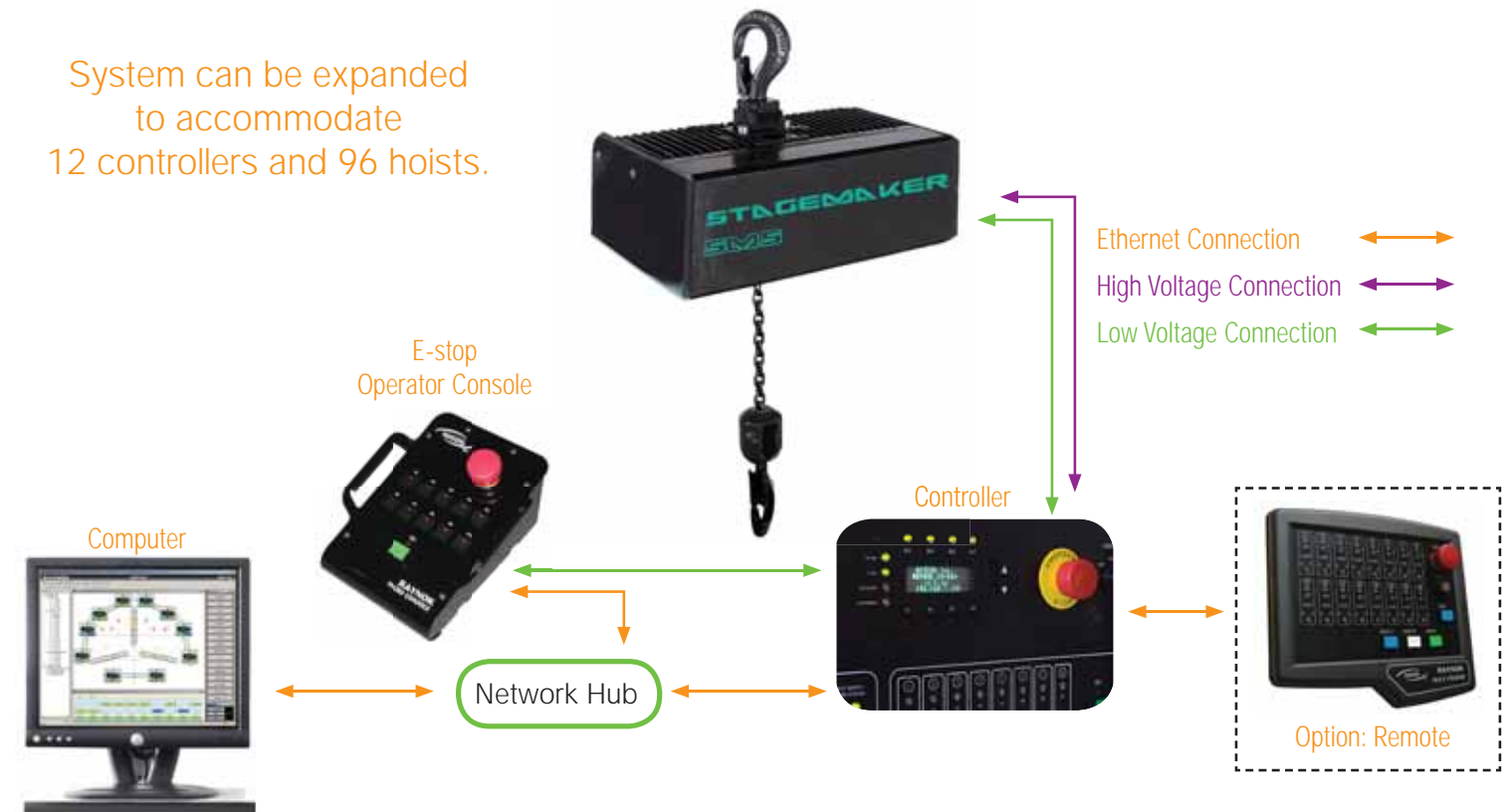
- Specially equipped for normal position
- Incremental encoder for positioning
- Hoist motor thermal protection
- Black load chain with chain container for up to 100' of chain
- 208V-3Ph-60Hz power supply
- Low voltage (115 VAC) control
- Upper and lower electrical limit switches (weight-operated)
- Non-reflecting matte black finish
- Over-load protection via the torque limiting device
- Steel control enclosure (except SM1, NORYL plastic)
- Fixed body hook
- Power / control pigtail with 16 pin Harding connector

Raynok features

- Displays imperial or metric units
- Displays multiple languages
- "Go" button as dead-man function
- Plan view - view of rig and hoist selection
- Selection view - view status of hoist and elevation



System can be expanded to accommodate 12 controllers and 96 hoists.



system description

- Hoist selection can be defined for individual or group operation (with adjustable synchronization).
- The various positions of the hoists are determined by an incremental encoder. The information is then recorded and temporarily stored in the Programmable Controller in the event of power failure.
- The pre-selection, height adjustment, and delays can be set separately in order to create multiple combinations in accordance with the various shows and stage sets.
- Special effects can be created by adjusting the delay and synchronization features.
- Manual operation is possible without the PC using the controller touch keys and LED indicator.

hoist options

- Inverted mounting position - includes a polyamide chain guide (SM5 and SM10), handgrips, and a swiveling body hook (except SM1). Upper and lower limit switches (weight operated) are removed and a geared limit switch is added.
- Self-locking hook (SM5 and SM10)
- Geared limit switch (except SM1)
- Second brake (SM5 and SM10 only)
- 10:1 safety factor

pc requirements

- Windows OS - XP Professional recommended
- CPU Pentium III, or higher
- Memory 512MB RAM, or higher
- Resolution 1024 x 768 pixels
- CD drive
- 10/100 network card
- 250MB storage space



* Controllers and software, which have been designed and tested with Stagemaker® hoists, are provided by Niscon, Inc. Raynok is a trade name of Niscon, Inc. Computers, remotes, controllers and connectors are sold separately.

STAGEMAKER

controllers Configuration E - Raynok* programmable control system - variable speed

Now it is easy to control the load with accuracy.

Combine the Stagemaker Configuration E hoist with third party variable speed motion control such as the Raynok Motion Control System from Niscon, Inc. for ultimate flexibility and synchronization of motion. A Raynok Inverter Drive module provides infinitely variable speed, 1/8" accuracy and the ability to maintain synchronized position and speed control between multiple motors. With the Raynok software in control multiple cues are easily configured with individual target, speed, acceleration and deceleration settings. Motor Groups can be created to ensure that they move together within user configurable tolerances. Say goodbye to jerky truss motion and hello to smooth, fluid motion with the Stagemaker® Configuration E and Raynok.



hoist features

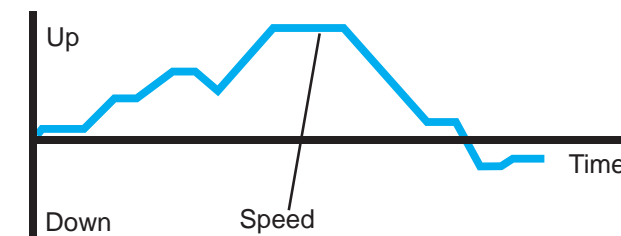
- Specially equipped for normal position
- Black load chain with chain container for up to 100 ft of chain
- Non-reflection matte black finish
- Fixed body hook
- Upper and lower limit switch (weight-operated)
- Over-load protection via the torque limiting device
- Steel electrical enclosure
- No controls
- Wiring to terminal strip
- Brake rectifier
- Two round cable glands for 5/16"-9/16" cable diameter
- 208V-230V-3Ph-60Hz power supply
- Optional pigtail(s)



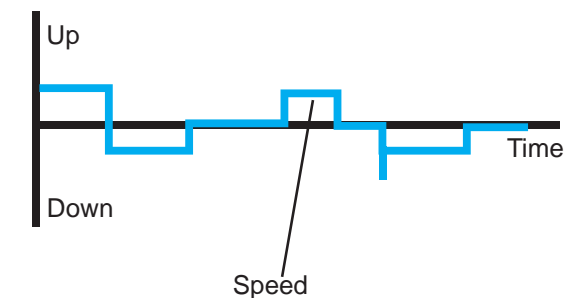
advantages of variable speed hoists

- High-precision, gentle lifting
- Lower shock and stress on carrying structure
- Efficient load handling
- Excellent investment return
- An incredible price!

Variable speed hoist control gives the ability to smoothly accelerate, decelerate and hold any speed between the defined minimum and maximum speed.



Single-speed hoist control does not offer the ability to smoothly accelerate or decelerate between the defined minimum and maximum speed.



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STAGEMAKER[®] controllers



Controller SC4P



Controller specifications

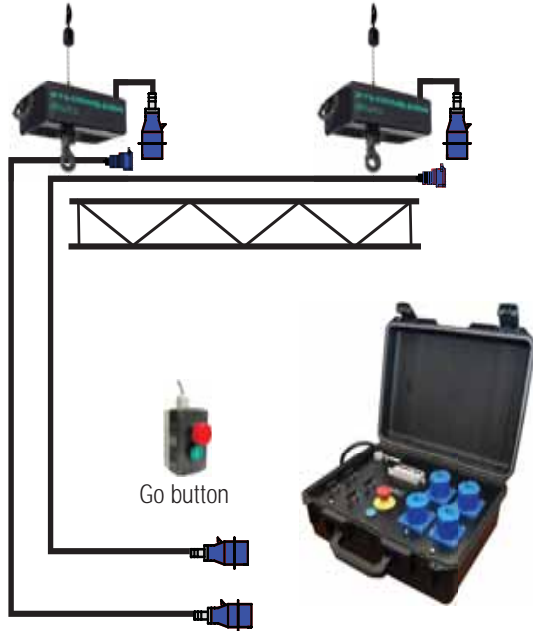
group controllers for configuration A

Model	# of Channels	Description	Enclosure	Connection
SC4P-UL	4	Direct control without remote	ABS Briefcase	CE - 4p plug
SC8P-UL	8	Direct control without remote	ABS Briefcase	CE - 4p plug

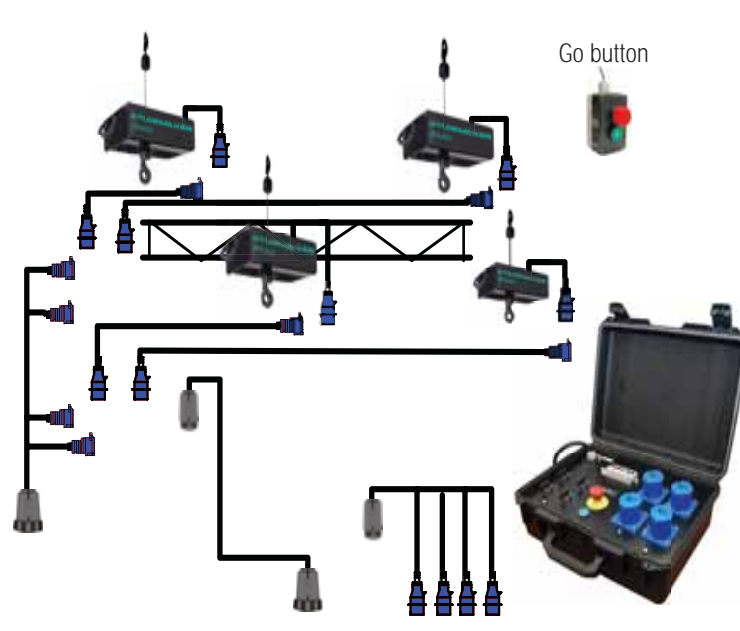
- Direct control
- 208/230V-3Ph-60Hz
- Individual hook level correction
- 3 position selector switch (UP-OFF-DOWN) per channel (group control)
- Master-slave function up to two controllers
- Emergency stop is a push-to-maintain, turn-to-release, red mushroom head push button
- Short circuit proofing: once at 10kA maximum
- Go button as a deadman

Configuration A controllers - Examples of use

Two hoists - Two cables from the controller to the hoists



Four hoists - One cable from the controller to the hoists



Configuration B & S controllers - Examples of use

One cable arrangement where power and control is supplied to the hoist with a combined power and control cable. Cable is outfitted with 7 pin Socapex connectors.



Third-party controller (MC8 - 8 channel shown)

Two-cable arrangement where power & control are supplied to each hoist through separate power & control cables. Cables are outfitted with Twist-lock connectors.



Third-party controller (MC4 - 4 channel shown)

group controllers for configuration B or S

Model	# of Channels	Description	Enclosure	Connection
MC4	4	Low voltage control with remote	ABS Briefcase	NEMA TYPE
MC4	4	Low voltage control with remote	ABS Briefcase	CEEP 7
MC8	8	Low voltage control with remote	ATA rated road case	NEMA TYPE
MC8	8	Low voltage control with remote	ABS Briefcase	CEEP 7

- Power and control
- 208/230V-3Ph-60Hz
- Front panel input phase indicators
- Fully magnetic circuit breaker protection
- Hand held remote with 50ft cable
- Individual "Bump" buttons on remote
- Motor direction CED's on remote
- Automatic shutdown if remote disconnects
- Hoist selection via remote
- Go button as a deadman



Single hoist pistol-grip pushbutton controller (pickle) for configuration B or S

Features

- Pigtail without plug (standard pigtail length is 18")
- Pendant station is light in weight for easy handling and operation
- Two push buttons for up and down directions
- Contacts for motion buttons are mechanically interlocked and momentary type

Optional features

- Longer pigtail cable lengths (in 1 ft increments up to 50 ft)
- Twist-lock male plug

group controllers for configuration C, D, V, or E

See pages 10 - 13 for configuration C & E controllers.
See technical guide for more information on the configuration D controller.

STAGEMAKER[®]

accessories & training

flight cases

Flight cases specially designed for the STAGEMAKER[®] motors are available.



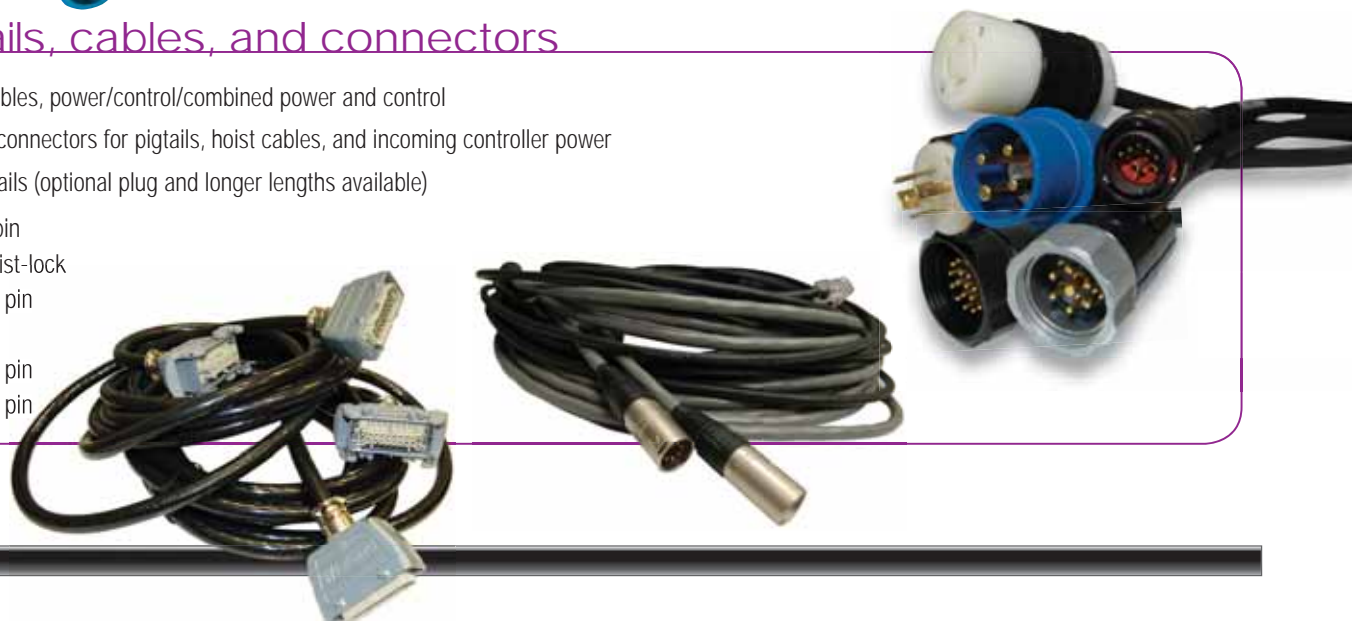
Photo courtesy of Adirondack Studios.



- Protective industrial grade foam
- Heavy-Duty swivel casters
- Interior supports are Interchangeable
- Storage areas for pigtail, cable, chain bag
- .374" wood panel structure with black covering
- Double .0787" aluminum corner profiles
- PEEN locks
- Reinforced upper plate
- 2 carrying grips on SM1 and SM5
- 4 carrying grips on SM10

pigtails, cables, and connectors

- Hoist cables, power/control/combined power and control
- Mating connectors for pigtails, hoist cables, and incoming controller power
- 18" pigtails (optional plug and longer lengths available)
 - 7 pin
 - Twist-lock
 - 14 pin
 - CE
 - 16 pin
 - 19 pin



Stagemaker[®] training

R&M's mission is to create a competitive advantage for our distributors through industry leading technology, customer service, and marketing support. R&M's formal training program offers basic and advanced training in Sales, Service, and Software Tools.

In addition our training center provides theoretical and practical courses on our products, as well as refresher courses to keep our customer's staff up-to-date with technical developments in the field of lifting and conveying equipment in the entertainment industry.

STAGEMAKER

EZ Lift™ manual products

We offer a wide range of products for use in stage applications.

manual chain hoists

RM Series II
1/4 ton - 10 ton capacity



RM Series II Manual Chain Hoist

Overload limiting device to prevent lifting loads beyond rated capacity. (Except 1/4 ton [250 kg] unit).

RMP Premium Manual Chain Hoist
Load limiter to prevent lifting loads beyond rated capacity.

- 10 ft (3 m) standard lift. Hand chain is 2 ft (0.5 m) less than lift. Additional lifts available.
- High strength, grade 80 alloy steel load chain with galvanized finish for corrosion resistance.
- Hooks are alloy steel, heat treated and equipped with hook latches and inspection points.
- Dual pawl Weston-style brake with two brake friction discs provides four braking surfaces.
- Meets or exceeds international standards, including ASME B30.16.

RMP
1/2 ton - 20 ton capacity



manual lever pullers



RLP Premium Lever Puller
3/4 ton - 6 ton capacity

- Standard lift is 5 ft (1.5 m) with additional lifts available.
- Rugged steel construction for durability.
- Compact and light-weight design make this hoist extremely versatile.
- Operates in tight spaces with 360° handle rotation and a 15° handle recovery.
- Meets or exceeds international standards, including ASME B30.21.

RL Lever Puller
1/4 ton - 3 ton capacity

- Standard lift is 5 ft (1.5 m) with additional lifts available.
- Steel construction with chrome finish.
- Ideal for construction, maintenance, service & much more.
- 360° handle rotation and rubber grip.
- Totally enclosed brake provides protection against dirt.
- Meets or exceeds international standards, including ASME B30.21.



beam clamps



RBC Beam Clamp
1, 2, 3, and 5 ton capacity

- Versatile jaws designed to mount on a wide range of tapered or flat beams.
- Built-in suspension bar allows for low headroom.
- Easily installed and adjusted by hand.
- Provides temporary or permanent mounting point for hook mounted hoists or lever pullers.
- Designed to minimize stress applied to beam.



push & hand geared trolleys



RPT Push Trolley
1/4 ton - 5 ton capacity

- Designed for both manual and electric top hook hoists.
- Crown-tread wheels compatible with W and S beams.
- Wheel ball bearings are sealed and maintenance-free.
- Easily adjustable for a wide range of flange widths.
- Optional clamp style



RPTC Hand Geared Trolley
1 ton - 10 ton capacity

- Single flanged machined steel wheels add to the smooth motion.
- Safety drop lugs and rubber bumpers are standard.
- Precise load control & shorter traversing applications.