



# Spacemaster® SX

## Electric Wire Rope Hoists

*Innovation . . . Performance . . . Reliability*

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



**1/2 - 80 Ton**  
**(500 - 80,000 kg)**



# Spacemaster® SX hoists:

The Spacemaster® SX represents a revolutionary new generation of exceptionally reliable electric wire rope hoists, featuring advanced technology and cutting-edge performance.

An innovative design that includes a large drum diameter gives Spacemaster® SX hoists the lowest headrooms and best wheel loads in the industry while providing near true vertical lift with single reeved hoists, and both exceptional hook approaches and heights of lift. Unique features include new low maintenance, sealed brakes, a two-speed hoist motor, and trolley inverter control. The standard hoist nameplate will carry a CSA c/us rating as well as a NEMA 3R rating for electrical enclosures. Two-component epoxy paint is standard. Spacemaster SX® hoists are designed to meet and exceed either ASME H3 or ASME H4 duty (FEM 1Am, 2m, or 3m) ratings and provide the ultimate in easy load handling, safe operation and lasting, trouble-free performance.

Standard configurations include normal headroom, low headroom and double girder trolley designs. Hoists in short ton ratings (ASME) or metric ratings (FEM) meet a wide variety of application requirements:

- 1/2 - 80 ton (500 - 80,000 kg) capacities
- Lifts starting at 13ft (4m) to 320ft (100m) and beyond
- Lifting speed range 10/1.5 to 62/10 fpm (3/0.5 - 19/3 m/min)
- 208, 230, 460, 575/3/60 or 380/3/50 power supply
- Single-reeved or double-reeved

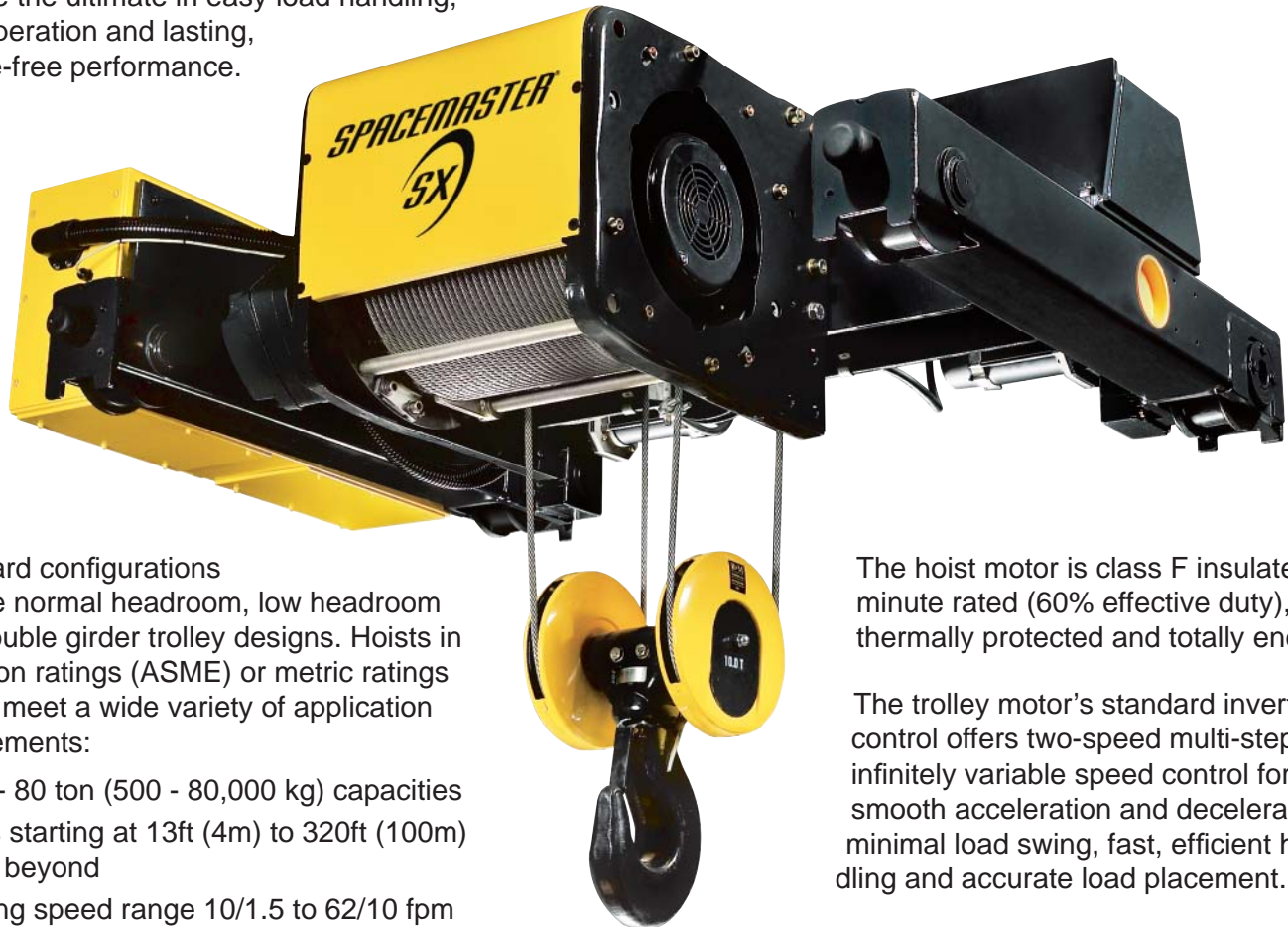
## **EASE OF OPERATION**

***Large-diameter hoist drum means easy positioning, closer approaches.***

The larger drum diameter provides near true vertical lift with a single reeved hoist — only 1/8" drift per foot of lift. The result is exceptionally smooth movement and fast load positioning. This innovative design also means a shorter frame length, allowing closer end approaches.

***Hoist and trolley motors designed for space savings and productivity.***

Standard two-speed hoist motor (6:1 ratio), designed specifically for hoisting applications, offers high starting torque and ensures precise and reliable load handling.



The hoist motor is class F insulated, 30 minute rated (60% effective duty), thermally protected and totally enclosed.

The trolley motor's standard inverter control offers two-speed multi-step or infinitely variable speed control for smooth acceleration and deceleration, minimal load swing, fast, efficient handling and accurate load placement.

# Superior Long-Term Performance,

## **SAFETY**

**Standard safety features that competitors don't offer—or offer at extra cost.**

An electromechanical load limit switch prevents the lifting of loads that are in excess of 110% of rated capacity. The 4-position hoist limit switch includes an innovative phase mismatch protection circuit that prevents the block from running up and damaging the hoist in the event of phase reversal.



Sealed brakes, hardened ground gears, thermal motor protection, exceptional rope life and ergonomic hook block design with sturdy safety latch contribute to the hoist's safe operation and increased reliability.

## **LESS MAINTENANCE**

**Sealed brakes mean long-term value.**

Sealed dust-proof brakes on the trolley and hoist motors require little adjustment for over a million cycles and will last the life of the hoist under normal use.

**Trolley design reduces wear on components.**

The trolley drive is totally enclosed, grease lubricated and is designed to be maintenance-free. Trolley wheel bearings are permanently lubricated. The automatic disc brake and inverter control help extend the life of the motor and other components, which means less maintenance, less downtime, lower repair costs — and reduced cost over the lifetime of your hoist equipment.

## **LONG LIFE**

**Innovative gearbox provides dependable operation and extends equipment life.**

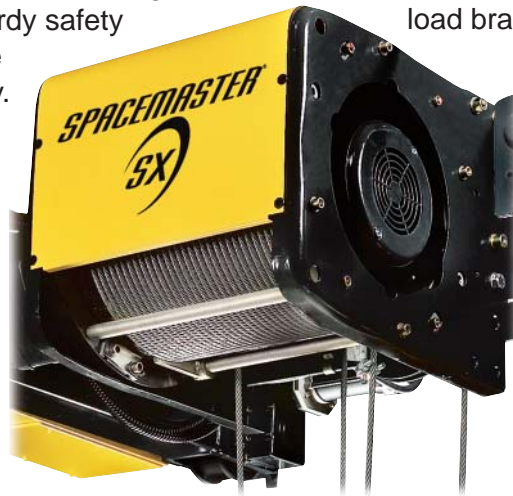
The innovative gear case design reduces stress on drum bearings, reducing the need for maintenance while extending component life. It features hardened and ground internal reduction gears driving an external drum gear located on the inner surface of the rope drum. The gearbox's semi-fluid grease lubrication also helps to extend its working life. The gear case is designed to run cooler and more efficiently than those equipped with a mechanical load brake.



**Larger hoist drum minimizes rope wear and enhances cooling.**

A drum/rope diameter ratio of approximately 40:1 minimizes rope flex, reducing wear and extending rope life. The drum's large diameter also contributes to a reduction in frame size and weight, reducing wear on hoist

components and enabling the use of more cost-effective crane girders. The unique placement of the hoist motor inside the drum provides directed airflow through the drum for optimal motor cooling. This design also makes the motor and brake more easily accessible.



For the most current  
Technical Guides, drawings and other  
product information visit our website at

**[www.rmhoist.com](http://www.rmhoist.com)**

# Reliability and Cutting-Edge Technology

## High Capacity Hoists

### Standard offering includes:

- SX6 single and double reeved models rated up to  
20 Ton - ASME H4 (20,000 kg - FEM 3m)  
30 Ton - ASME H4 (32,000 kg - FEM 2m)  
40 Ton - ASME H3 (40,000 kg - FEM 1Am)
- SX7 double reeved models rated up to  
40 Ton - ASME H4 (40,000 kg - FEM 3m)  
60 Ton - ASME H4 (63,000 kg - FEM 2m)  
80 Ton - ASME H3 (80,000 kg - FEM 1Am)



## Special Application Hoists

- Main hoist / auxiliary hoist on a common trolley
- Double girder under running trolley
- Motorized bottom block
- Specialized controls
- Double girder hoist rotated 90°
- Outdoor use / dusty environment
- High altitude
- Special trolley rail gauges
- Low connection double girder trolleys for tight rail to ceiling applications

## Optional Second Brake

- The second hoist holding brake, mounted on the gear box, is in addition to the standard hoist motor brake
- Both brakes open simultaneously but the closing of the second hoist brake is momentarily delayed to avoid rapid stop and excessive brake wear
- Available on SX2 - SX5 hoist models
- A drum mounted hoist brake is available on SX6 and SX7 models; it can act as a holding brake, provide over-speed protection or both



# Innovation . . . Performance . . . Reliability

## HoistMonitor

**Diagnostics that take the safety, maintenance and performance of the Spacemaster® SX hoist to new heights.**

The HoistMonitor can be added to the hoist controls to assist in the safe operation, maintenance and performance of the hoist and crane by constantly monitoring and recording selected functions.

Three HoistMonitor configurations are available: the basic HoistMonitor, HoistMonitor Select and HoistMonitor Elite. In addition, various options are available for each of the configurations. Refer to the Spacemaster® SX Wire Rope Hoist Technical Guide for detailed function descriptions. The HoistMonitor Select and the HoistMonitor Elite can be used individually or jointly to provide customized functionality.

The HoistMonitor Select allows for more efficient planning and scheduling of preventative maintenance and repairs.



## Variable Speed Control

- ControlMaster® Plus and ControlMaster® Elite Variable Frequency Drives
- Cost effective open loop control with speed supervision, or closed loop control for demanding applications
- Controlled acceleration and deceleration provides for smooth starts and stops, reducing brake wear and extending the life of the equipment
- Multi-step (MS) speed control or infinitely variable (EP) speed control of hoist for easy, safe and precise load handling



## RaCon® Series II Radio Control Systems

- Allows full concentration on crane operation, the operator does not have to follow the moving crane with an attached pendant control
- Crane operator can control the crane from the safest location - no restriction of a fixed-length pendant cable
- The transmitter's responsive two-step push buttons allow for easy and precise crane control
- Transmitter can be outfitted with LCD display unit and / or selector switch



## PD and PBR Pendant Configurations

- PD suitable for indoor or outdoor use; PBR suitable for indoor use only
- Light weight for easy handling and operation
- Emergency Stop and Start buttons
- HoistMonitor Plus feature adds a display unit to the PBR style pushbutton station, giving the operator floor-level access to the HoistMonitor's information





# Spacemaster® SX Electric Wire Rope Hoists

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Bulletin No. SX-2008-1

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## Double Girder Trolley

Superior clearance and headroom for double girder crane applications.



## Normal Headroom Trolley

An ideal selection for monorails and jib crane applications. Hardened wheels for patented track applications are also available.

## Low Headroom Trolley

The best solution for single girder cranes; its compact design provides maximum space-efficiency.



*Caution: Do not use R&M hoists and trolleys for passenger elevator applications.*

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