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## SPECIFICATIONS: Mat Hoist® Storage System Model 500

### 1.0 GENERAL

- A. Stores up to **one** 45' x 45' mat.
- B. Three cable balanced lift system.
- C. Five-year manufacturer's warranty.
- D. Manual lowering override brake

### 1.1 PRODUCT INTRODUCTION

- A. Direct drive motor operated mat storage system with **five-year warranty. (No exceptions)**
- B. Twenty-foot long universal I-Beam frame provides adaptability to structural steel.
- C. Three movable unit clamps with six grade B-7 3/4" x 18" supporting rods.
- D. The MH500 is an abridged version of the model 1000 system using the same fundamental construction and engineering principles as our load-tested system, to create an intrinsically equal safety factor.

### 1.2 WORK SPECIFIED ELSEWHERE

- A. Electrical work. B. Added structural steel. C. Field painting. D. Wrestling mat. E. Installation

### 1.3 SUBMITTALS UPON REQUEST

- A. Mat Hoist® AutoCAD drawings showing storage system, mounting brackets and wiring diagrams.

## 2.0 PRODUCT SPECIFICATIONS

**2.1** Ceiling or wall supported mat storage system shall be the **Mat Hoist® Model 500** as manufactured by N.G.E. Inc., P.O. Box 370, 302 N. Erickson, Industrial Park (northeast), Roland, IA 50236, (515) 388-4118 and FAX (515) 388-4340, **website: [www.mathoist.com](http://www.mathoist.com)**, having these features:

- A. **MAT HOIST:** Mat storage hoist shall be a twenty-foot long lift/lower I-beam frame. System must have a highly efficient hollow bored helical gear direct drive (1 1/2" diameter) solid keyed shaft. System must have a forty-foot long load bar and one-piece 9' x 40' long 22oz. vinyl/polyester sling. Sling shall be capable of storing one 45' x 45' wrestling/gymnastic mat. Storage system shall be complete with three forked end 5/16" x 35' support aircraft cables and all hardware required for installation and operation. Storage system shall be installed with a minimum of three clamping support points spaced equally on architect/structural engineer approved ceiling truss or wall.
- B. **HOISTING:** Vertical hoisting shall be motor operated, 1 H.P. 208, 230 or 460 volts three phase complete with up/down limit switches, 7.4 lb fast action brake motor and high efficiency gearing. Final output speed is 10.6 rpm 5,741lb inch torque output to lift approximately 2000 pounds of mat on three 4" diameter drums directly coupled to a 1 1/2" diameter x 20' long solid keyed shaft. Motor and starter shall have thermal overload protection and motor shall be factory lubricated and sealed. System shall be pre-wired with a furnished electrical key switch to operate motor with automatic off return and raise/lower legend plate, plus an emergency lowering manual override brake, in case of a power outage.
- C. **DESIGN:** The MH500 is an abridged version of the model 1000 system using the same fundamental construction and engineering principles as our load-tested system, to create an intrinsically equal safety factor. System must not have outside assisting devices such as load-bar pulleys, chain hoists, larger motors, or a sprocket/roller chain between reducer and shaft. System shall be direct helical gear drive only.
- D. Manufacturer must show **proof** that they have manufactured mat hoisting systems for at least five years to offer **5-year** warranty.

### 3.0 PREPARATION

- A. Coordinate electrical rough-in requirements and locations with the electrician.
- B. Installation shall be coordinated through the General Contractor on new construction.

### 3.1 INSTALLATION

- A. Deliver and install Mat Hoist® storage system at location indicated on plans.
- B. Electrical Contractor shall furnish and install electrical raceways, boxes, wiring, safety disconnect switch, and make final connections to manufacturer furnished starter, up/down limit switches and keyed control switch. Contractor shall also verify Mat Hoist® is operating in correct rotation with up/down limit switches.
- C. Adjust storage unit to correct height, level and alignment.
- D. In addition to these specifications, the entire Mat Hoist® installation shall be in accordance with the manufacturer's installation procedures.
- E. Installer instructs owner/general contractor in the operation of the storage system.