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## **SPECIFICATIONS: Mat Hoist® Storage System Model 1000**

### **1.0 GENERAL**

- A. Stores up to **two** 45' x 45' mats.
- B. Three cable balanced lift system.
- C. 17,500 lbs. load test for safety.
- D. Ten-year manufacturer's warranty.
- E. Manual lowering override brake
- F. Exclusive intrinsically safe 24 volt power system

### **1.1 PRODUCT INTRODUCTION**

- A. "Load tested" direct drive motor operated mat storage system with **ten-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.

### **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.
- B. Documented proof of a load test for safety.

### **2.0 PRODUCT SPECIFICATIONS**

2.1 Ceiling or wall supported mat storage system shall be the **Mat Hoist® Model 1000** 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. Unit must have a highly efficient hollow bored helical gear direct drive (2" diameter) solid keyed shaft. System must have a forty-foot long load bar and one-piece 12' x 40' long 22oz. vinyl/polyester super sling. Sling shall be capable of storing two 45' x 45' wrestling/gymnastic mats rolled inside one another. Storage system unit 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. System shall have a custom integrated motion alarm which automatically sounds when system is in motion for safety.
- B. **HOISTING:** Vertical hoisting shall be motor operated, 1 ½ H.P. 208, 230 or 460 volts three phase complete with up/down limit switches, 14.8 lb fast action brake motor and 95% efficiency gearing. Final output speed is 8.8 rpm 10,800lb inch torque output to lift approximately 4000 pounds of mat on three 4" diameter drums directly coupled to a 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 wired to an intrinsically safe 24 volt power system with automatic off return and raise/lower legend plate, plus an emergency lowering manual override brake, in case of a power outage.
- C. **TESTING:** Mat storage system must show documented **proof** from an independent testing laboratory that load tests were performed on entire system and clamps to 17,500 lbs. Tested 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 ten years to offer **10-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.