







## TECHNICAL SPECIFICATIONS

### Rail-Top Mount:

Rail shall be 4140 steel bar 4-1/2" (114mm) wide x 3/8" (9.5mm) high, with black zinc finish. Rail edges shall be beveled down to a maximum of 3/16" (4.8mm) to allow for the rail to be transversed by material handling equipment. Rail shall disperse the wheel point loads to structural slab. Rail shall have two permanently mounted floor anchors maximum 15" (381mm) on center. Rails shall be installed on top of concrete slab. Rail and carriage design allows concrete slab to be unlevel at the following maximum variations:

- 3/16" (4.8mm) maximum variation over any 2' (.6m) rail run.
- 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run.
- 1/4" (6.4mm) maximum variation between adjacent rails.

### Rail-Recessed Mount:

Rail shall be 4140 steel bar 4" (101.6mm) wide x 3/8" (9.5mm) high, with black zinc finish. Rail shall disperse the wheel point loads to structural slab. Rail shall have two permanently mounted floor anchors maximum 15" (381mm) on center. Rail shall be installed recessed into concrete slab and flush to top of concrete slab. Rail and carriage design allows concrete slab to be unlevel at the following maximum variations:

- 3/16" (4.8mm) maximum variation over any 2' (.6m) rail run.
- 1/4" (6.4mm) maximum variation over any 10' (3.04m) rail run.
- 1/4" (6.4mm) maximum variation between adjacent rails.

### Mobile Carriage Bases:

Assembled structural steel carriage base will have a minimum capacity of 7,000 lbs. (3,175 kg) per carriage section. Each wheel assembly shall be equipped with two steel wheels, minimum 5" (127mm) diameter steel wheels.

Wheels are equipped with two permanently lubricated and shielded radial ball bearings. Wheel capacity 3,500 lbs. (1,587 kg) each. Wheels have solid steel axles of 1" (25mm) diameter. Wheels shall be dual flange, all-wheel guided. All carriage sections between wheel assemblies have integral diagonal bracing to maintain accepted tolerances for function of systems. Side profiles shall provide and maintain wheel assembly alignment and squareness. These profiles shall be pre-drilled at the factory, but are bolted, and assembled on the job site as integral carriage members. Structural steel side profiles shall be minimum 5.084" (129mm) high, 10-gauge (3.4mm). Finish shall be powder coat paint.

### Line Shaft Drive System:

Line shaft drive consists of a wheel section positioned at each rail location. Wheel section shall consist of a load wheel and a drive wheel. Each wheel shall be provided with two permanently shielded bearing assemblies. Wheels shall be ASTM A 536 specification 65/45/12 machined ductile iron. All wheels shall be 5" (127 mm) diameter. All wheels on one side of the carriage shall be driven by a continuous steel drive shaft 1-5/16" (33 mm) O.D. x 1" (25mm) I.D. connected to the 1" (25 mm) diameter wheel drive axles with bolted clamp connections.

### Mechanical Assist Housing and Operator:

Mobilized storage bases are moved by means of a mechanical assist chain and sprocket drive unit and operator located in the front of each carriage. Multiple drive ratios are available. A roller chain connects sprockets and adjustable chain idlers and is required to maintain proper chain tension. Carriage is moved by rotating a three spoke handle with rotating knobs. The anti-roll mechanism system is required to prevent carriage from drifting. Dual control housings and operators for accessing a system module from both the front and rear are optional.

Specifications are subject to change.  
Patent Pending.



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