

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. 135 Heavy Duty Wire Mesh.
 - 1. Hinge Doors.
 - 2. Sliding Doors.
 - 3. Wire Mesh Ceilings.

1.2 DEFENITIONS

- A. Intermediate Crimp: Wire pass over one and under the next adjacent wire in both directions, with wires crimped before weaving and with extra crimps between intersections.

1.3 SUBMITTALS

- A. Product Data: For each type of product.
- B. Sustainable Design Submittals:
 - 1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
- C. Shop Drawings:
 - 1. Include plans, elevations, sections, details of panel and door construction, and hardware.
 - 2. Indicate clearances required for operations of doors.
- D. Samples for initial selection: For units with factory-applied color finishes.
- E. Samples for verification: 12-by-12-inch (300-by-300-mm) panel constructed of specified frame members and wire mesh.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum 1 year experience installing similar products.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver wire mesh items palleted and wrapped to provide protection during transit and project-site storage. Use vented plastic.
- B. Store wire mesh in a dry area out of weather and prohibit stacking other materials on top.

1.6 FIELD CONDITIONS

- A. Field Measurements: Verify actual dimensions of contiguous with wire mesh units by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Acorn Wire & Iron Works LLC

2.2 MATERIALS

- A. Steel Wire: ASTM A 510.
- B. Steel Plates, Channels, Angles, and Bars: ASTM A 36.
- C. Steel Sheet: Cold-rolled steel sheet, ASTM A 1008/A 1008M.
- D. Steel Tubing: ASTM A 500/A, cold-formed structural-steel tubing.
- E. Panel-to-Panel Fasteners: Acorn's standard steel bolts and nuts.

2.3 130-A STANDARD-DUTY WIRE MESH PARTITIONS

- A. Mesh: 6 gauge steel **0.192-inch- (4.9-mm-)** diameter, intermediate-crimp steel wire woven into **2-inch (50-mm)** diamond mesh.
- B. Vertical Frames: **1-1/2-by-3/4-by-1/8-inch (38-by-19-by-3.2-mm)** cold-rolled steel channels; with holes for **7/16-inch- (11-mm-)** diameter bolts not more than 18 inches (**457 mm**) o.c.
- C. Horizontal Frames: One cold-rolled steel channel tenoned to side frames, **1-1/2 by 3/4 by 1/8 inch (38 by 22 by 3.2 mm)**, 12 gauge, with wires woven through center stiffening bar(s).
- D. Top Capping Bars: **3-inch by-4.1-lb (76-mm by- 1.9-kg)** steel channels.
- E. Vertical Panel Stiffeners: **2-1/2- by 5/16-inch- (63.5- by 7.9-mm-)** thick, hot-rolled flat bar.
- F. Posts for 90-Degree Corners: **1-3/4-by-1-3/4-by-1/8-inch (44-by-44-by-3.2-mm)**, 12-gauge, steel angles, with holes for **7/16-inch- (11-mm-)** diameter bolts aligning with bolt holes in partitions.



- G. Adjustable Corner Posts: 2-inch- (50-mm) OD by 1/8-inch (3.2-mm) steel square tube, with holes for 7/16-inch- (11-mm-) diameter bolts aligning with bolt holes in vertical framing; with 1/4-inch (6.4-mm) steel base plates.
- H. Line Posts: 3-inch-by-4.1-lb (76-mm-by-1.9-kg) steel channels; with 5/16-inch (7.9-mm) steel base plates.
- I. Floor Shoes: Aluminum, 2-1/2 inches (63.5 mm) high, with set screws for leveling adjustment.
- J. Swinging Doors: Fabricated from same mesh as partitions, with framing fabricated from 1-1/2-by-3/4-by-1/8-inch (38-by-19-by-3.2-mm) steel channels, banded with 1-1/2-by-1/8-inch (38-by-3.2-mm) flat steel bar cover plates on three sides, and with full length 1-3/4-by 7/8- by 1/8-inch- (44- by 22- by 3.2-mm-), 12-gauge-thick angle strike bar on door and jamb side.
 - 1. Marks Lockset (Model #W3700) with cylinder operated by key outside and recessed knob inside.
 - 2. Padlock Lug: Mortised into door framing.
 - 3. Optional hardware:
 - A. Prep for special hardware: 1) Electric lock, 2) Exit device, 3) Electric strike, 4) Magnet lock, 5) door closer.
 - B. Hardware specified in section 087100.
- K. Swinging Dutch Doors: Two section door with lower section lock, upper section hasp for padlock, and shelf centered on lower section. Fabricated same as hinge door with each section having one pair of butt hinges.
- L. Sliding Doors: Fabricated from same mesh as partitions, with framing fabricated from 1-1/2-by-3/4-by-1/8-inch (38-by-19-by-3.2-mm) steel channels, banded with 1-1/2-by-1/8-inch (38-by-3.2-mm) flat steel bar cover plates on four sides.
 - 1. Hardware: Two, four-wheel roller-bearing carriers, box track, and bottom guide channel for each door.
 - 2. Padlock Lug: Mortised into door framing.
 - 3. Cylinder Lock: Marks Lockset (Model #W3820) with cylinder operated by key outside and recessed knob inside.
 - 4. Optional hardware:
 - A. Prep for magnet lock.
 - B. GL1 Electric Lock.

- M. Vertically Sliding Service Windows: : Fabricated from same mesh as panels and equipped with a spring catch on each jamb to lock window in open and closed positions. Include opening frame in partition fabricated from 1-by-1-by-1/8-inch (25-by-25-by-3.2-mm), 12-gauge-steel box channels.
1. Size: [24 inches wide by 15 inches high (600 mm wide by 381 mm high)].
 2. Shelf: Fabricated from 0.0747-inch- (1.9-mm-) thick, steel sheet; with corners rounded and edges finished smooth; braced with manufacturer's standard brackets.
 - A. Size: [24 inches wide by 12 inches deep (610 mm wide by 300 mm deep)].

N. Accessories:

1. Sheet Metal Base: 0.060-inch- (1.5-mm-), 16-gauge-thick steel sheet.

O. Finish: Powder –coated finish.

1. Optional finishes:
 - A. Electro-galvanized.
 - B. Electro-galvanized and powder coat.
 - C. Hot-dipped galvanized.

2.4 WIRE MESH CEILINGS

- A. Mesh, Framing, and Stiffeners: Fabricated from same mesh and framing as wire mesh partition panels.
- B. Perimeter Partition Supports: [1-1/2-by-1-1/2-by-0.075-inch (38-by-38-by-1.9-mm)] [1-3/4-by-1-3/4-by-0.075-inch (44-by-44-by-1.9-mm)], 14-gauge steel angle, with holes for 1/4-inch- (6-mm-) diameter bolts aligned for bolting to top of wire mesh partitions and to sides of wire mesh ceiling panels.
- C. Wall Supports: 1-1/2-by-3-by-0.105-inch (38-by-38-by-2.66-mm), 12-gauge steel angle punched for attachment to wall and wire mesh ceiling panels.
- D. Intermediate Supports: Steel I-beams or rectangular tubes, as recommended by manufacturer.
- E. Intermediate Support Posts: [2-by-2-by-1/8-inch (50-by-50-by-3.2-mm)] steel tubes.
- F. Finishes: Match adjacent wire mesh partitions.

2.5 FABRICATION

- A. Mesh: Securely clinch mesh to framing.
- B. Sweep space of 4 inches (100mm)

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2.6 STEEL FINISHES

- A. Galvanizing: Hot-dip galvanized items as indicates to comply with ASTM 153/A 153M for steel.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

3.2 INTALLATION

- A. Install wire mesh partition in accordance with manufacturer's shop drawings.

3.3 CLEANING

- A. Touchup Painting: Immediately after erection, clean bolted connections, and abraded areas. Paint uncoated and abraded areas with the same material as used for shop painting.

END OF SECTION