### **DIVISION 11 - EQUIPMENT**

# Section 11050 - Compact Shelving

#### Introduction

Compact shelving format is to be established during programming and design phases with the affected University Department and the Design Professional.

### Part 1 - General

Compact shelving may be manually or electrically operated.

### Part 2 - Products

- If the compact shelving is electrically operated, then the following criteria should be requested:
  - All electrical wiring and equipment shall comply with the current NEC, class 1 circuit, Article 725.
  - The class 1 circuit limited power shall be from the fused control box to the wiring on the load side of the control box.
  - Flexible cords and cables will be allowed if the class 1 circuit is totally in compliance with Article 400 & 725 of the current NEC. This class 1 circuit shall not include wiring to the light fixtures on or associated with the compact shelving. Cords shall be rated for service encountered.
  - All wiring and equipment shall be grounded and bonded according to Article 250 or the applicable article
    of the current NEC.
  - All wiring methods shall be installed according to Article 300 of the current NEC.
  - All electrical devices, materials and equipment shall be listed and approved by a University of Arizona
    approved testing laboratory and shall be used for it's approved listing and it's intended purpose. Motors
    shall be suitable for duty encountered and the motor controls shall be readily accessible. Laboratory
    listing and component listing shall be a performed by U.L., C.S.A., F.M., City of Los Angeles or other
    laboratory approved by the University of Arizona.
  - Light fixtures shall be wired with M/C cable or other approved means. This cable shall be no larger than 3/8" in size.
  - Motor protection shall comply with current NEC, Article 430.
  - Light fixtures shall be approved for feed-through application on their listing label or shall be installed with a junction box external to the fixture to accommodate feeding the next fixture. Ballasts shall be Magnatec, Advanced or other University of Arizona approved manufacturer.
  - Fixture shall have CR85, T-8, 4100K lamps and shall meet the EPA requirement for non-hazardous disposal.
  - All penetrations for cords, cables or the like shall have an approved bushing installed wherever the wiring method passes through any metal enclosure, pipe, channel, light fixture, etc. This applies at all ends of hollow metal channels also.

### Part 3 - Execution

- If the compact shelving is electrically generated then the following should be requested:
  - All compact shelving wiring shall be inspected and approved by University of Arizona Facilities Design & Construction Department Inspectors.
  - The compact shelving representative shall meet with University Representatives prior to installing any
    electrical wiring, devices, or equipment, to review any changes or variations in the applicable code or
    University of Arizona Standards.

## **End of Section 11050**

## **DIVISION 11 - EQUIPMENT**

# Section 11132 - Projection Screens

#### Introduction

Verify information with the University Teaching Center

Ceiling mounting is preferred to clear wall mounted items. Mounting shall be secure and durable. "S" or "J" hooks shall be closed.

Lecture hall screens shall be electrically operated and laid out so that motor is accessible and fire ratings of ceiling and wall surfaces are not interrupted. 110V switch is provided for operation at a wall location and 24V switch is required for operation at a lecturn.

Manual pull down screens shall be not less than 8' wide.

### Part 1 - General

Reference Division 16 if the screens are electrically operated

### Part 2 - Products

- Front view projection screens shall be a matte white polyester viewing surface with 1.2 grain characteristics complying with FS GG-S-00172D(1) for type A screen surface. Screens shall be seamless construction, mildew resistant and comply with NFPA 701 for fire performance characteristics.
- Where video projection is provided in the room, a "tab tension" shall be provided (to provide a uniform surface across the surface of the screen).

### Part 3 - Execution

There are no unique University requirements.

### **End of Section 11132**