

SECTION 11490 - GYMNASIUM EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following gymnasium equipment:
 - 1. Basketball equipment.
 - 2. Safety pads.

1.2 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For gymnasium equipment. Include plans, elevations, sections, details, attachments to other work.
- C. Structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation including loads, point reactions, and locations for attachment of gymnasium equipment to structure.
- D. Coordination Drawings: Court layout plans, drawn to scale, and coordinating floor inserts, game lines, and markers applied to finished flooring.
- E. Samples for Initial Selection: For each type of gymnasium equipment indicated.
- F. Maintenance data.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - 1. Extruded Bars, Profiles, and Tubes: ASTM B 221 (ASTM B 221M).

2. Cast Aluminum: ASTM B 179.
 3. Flat Sheet: ASTM B 209 (ASTM B 209M).
- B. Steel: Comply with the following:
1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
 2. Steel Tubing: ASTM A 500 or ASTM A 513, cold formed.
 3. Steel Sheet: ASTM A 1011/A 1011M.
- C. Castings and Hangers: Malleable iron, ASTM A 47/A 47M, grade required for structural loading.
- D. Softwood Plywood: DOC PS 1, exterior.
- E. Equipment Wall-Mounting Board: Wood, manufacturer's standard.
- F. Anchors, Fasteners, Fittings and Hardware: Manufacturer's standard corrosion resistant, or noncorrodible units.
- G. Grout: ASTM C 1107 with minimum strength recommended in writing by gymnasium equipment manufacturer.

2.2 BASKETBALL EQUIPMENT

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- C. Basis-of-Design Product: Subject to compliance with requirements, provide the product indicated on Drawings or a comparable product by one of the following:
1. AALCO Manufacturing.
 2. Arizona Courtlines, Inc.
 3. ADP Lemco Inc.
 4. Basketball Products International; a division of American Athletic, Inc.
 5. Bison Inc.
 6. Douglas Industries, Inc.
 7. Draper Inc.
 8. Institutional Products Inc.
 9. Jaypro Sports, LLC.
 10. L. A. Steelcraft.
 11. Performance Sports Systems.
 12. Porter Athletic Equipment Company.
 13. P. W. Athletic Mfg. Co.
- D. General: Provide equipment complying with requirements in NCAA's "NCAA Basketball Rule Book."

E. Wall-Braced Backboard:

1. Stationary Type: Manufacturer's standard assembly.
 - a. Finish: Manufacturer's standard powder coated finish.
2. Goal Height Adjuster: Adjustable from 8 to 10 feet with gear-drive mechanism, locking in any position within adjustment range, with visible height scale attached to side of framing.

F. Wall-Mounted Backboards: Complete assembly extending from wall, including support framing to building structure, bracing, cables, chains, pulleys, fittings, hardware, pipe anchors, equipment pads, and fasteners.

1. Stationary Type: Provide manufacturer's standard assembly for stationary backboard.
2. Goal Height Adjuster: Adjustable from 8 to 10 feet with gear-drive mechanism, locking in any position within adjustment range, with visible height scale attached to side of framing.

G. Backboard Safety Device: Designed to limit free fall if support cable, support chain, pulleys, fittings, winch, or related components fail.

H. Basketball Backboard:

1. Shape and Size:
 - a. Rectangular, 72 by 48 inches (1800 by 1200 mm) width by height, with rounded corners.
2. Backboard Material: With predrilled holes or preset inserts for mounting goals, and as follows:
 - a. Fiberglass: Not less than 1-1/2-inch- (38-mm-) thick.
 - 1) Rim-Restraining Device: Complying with NCAA rules and designed to ensure that basket remains attached if glass backboard breaks.
3. Target Area and Border Markings: Permanently etched in white color, marked in pattern and stripe width according to referenced rules.
4. Target Area and Border Markings: Marked in pattern, stripe width, and color according to referenced rules.
5. Finish: Manufacturer's standard factory-applied, white background.

I. Goal Mounting Assembly: Compatible with goal, backboard, and support framing for goal attachment.

J. Basketball Goals: Complete with flanges, braces, attachment plate, and evenly spaced loops welded around underside of ring.

1. Single-Rim Basket Ring Competition Goal.

2. Double-Rim Basket Ring: Fabricated with 2 rims.
 3. Type: Fixed, nonmovable.
 4. Type: Movable, breakaway design with manufacturer's standard breakaway mechanism and rebound characteristics identical to those of fixed, nonmovable ring.
 5. Finish: Powder-coat finish.
- K. Basketball Nets: 12-loop-mesh net, between 15 and 18 inches (400 to 450 mm) long, sized to fit rim diameter.
1. Cord: Made from white nylon or plastic.
- L. Backboard Safety Pads: Designed for backboard thickness indicated and extending continuously along bottom and up sides of backboard and over goal mounting and backboard supports as per manufacturer's standard design.
1. Color: As selected by Architect from manufacturer's full range.

2.3 SAFETY PADS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- C. Basis-of-Design Product: Subject to compliance with requirements, provide or a comparable product by one of the following:
1. AALCO Manufacturing.
 2. ADP Lemco Inc.
 3. American Athletic, Inc.
 4. Draper Inc.
 5. Institutional Products Inc.
 6. Jaypro Sports, LLC.
 7. Performance Sports Systems.
 8. Porter Athletic Equipment Company.
- D. Safety Pad Surface-Burning Characteristics: ASTM E 84 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
1. Flame-Spread Index: 25 or less.
 2. Smoke-Developed Index: 450 or less.
- E. Pad Coverings: Provide safety pad fabric covering fabricated from puncture- and tear-resistant, not less than 14-oz./sq. yd (475-g/sq. m) PVC-coated polyester or nylon-reinforced PVC fabric treated with fungicide for mildew resistance; with surface-burning characteristics indicated, and lined with fire-retardant liner.
- F. Wall Safety Pads: Padded wall wainscot panels designed to be attached in a continuous row; each panel section consisting of fill laminated to backer board with visible surfaces fully

covered by seamless fabric covering, free of sag and wrinkles and firmly attached to back of backer board.

1. Backer Board: Not less than 3/8-inch- (9.5-mm-) thick fire-retardant-treated plywood per AWPA C27, Interior Type A.
 2. Fill: Manufacturer's standard.
 3. Fire-Resistive Fill: Manufacturer's standard.
 4. Size: Each panel section, 24 inches (600 mm) wide by not less than 60 inches (1520 mm) long.
 5. Number of Panel Sections: modular panel sections.
 6. Installation Method: Manufacturer's standard.
 7. Fabric Covering Color(s): As selected by Architect from manufacturer's full range.
- G. Corner Wall Safety Pads: Wall corner pad consisting of not less than 1-1/4-inch- (32-mm-) thick, multiple-impact-resistant, closed-cell polyethylene-foam filler, covered on both sides and all edges by fabric covering with backer board and manufacturer's standard anchorage to wall.
1. Length: Each pad not less than 72 inches (1800 mm).
 2. Fabric Covering Color(s): As selected by Architect from manufacturer's full range.
- H. Column Safety Pads: Pads covering exposed columns to height indicated, consisting of not less than 1-1/4-inch- (32-mm-) thick, multiple-impact-resistant, closed-cell polyethylene-foam filler, covered on both sides and all edges by fabric covering with backer board and manufacturer's standard anchorage to column.
1. Length: Each pad not less than 72 inches (1800 mm).

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Comply with manufacturer's written installation instructions. Complete equipment field assembly, where required.
- B. Unless otherwise indicated, install gymnasium equipment after other finishing operations, including painting, have been completed.
- C. Permanently Placed Gymnasium Equipment and Components: Rigid, level, plumb, square, and true; anchored securely to supporting structure; positioned at locations and elevations indicated on Shop Drawings; in proper relation to adjacent construction; and aligned with court layout.
- D. Connections: Connect automatic operators to building electrical system.

3.2 ADJUSTING

- A. Adjust movable components of gymnasium equipment to operate safely, smoothly, easily, and quietly, free from binding, warp, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Lubricate hardware and moving parts.

3.3 CLEANING

- A. After completing gymnasium equipment installation, inspect components. Remove spots, dirt, and debris and touch up damaged shop-applied finishes according to manufacturer's written instructions.
- B. Replace gymnasium equipment and finishes that cannot be cleaned and repaired, in a manner approved by Architect, before time of Substantial Completion.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain gymnasium equipment. Refer to Division 1 Section "Demonstration and Training."

END OF SECTION 11490