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**SECTION** **11 66 23**

 **GYMNASIUM PROTECTION ACCESSORIES**

*\*\*\*\*\* Draper, Inc. manufactures these accessories for gymnasiums:*

 *Wall Pads*

 *Gym Floor Covers*

*This product guide specification section can be used to specify one or more of these items or the requirements presented in this section can be incorporated with specifications for other athletic equipment such as basketball backstops and volleyball standards. The product requirements for clock guards and scoreboard protectors could also be included in specification sections specifying clocks and scoreboards. Post protection pads for outdoor basketball backstops are specified in SECTION 11 68 23.13 - OUTDOOR BASKETBALL BACKSTOPS. Safety edge padding for basketball backboards is specified in SECTION 11 66 23.13 BASKETBALL BACKSTOPS. Protective pads for volleyball standards and judges stands are specified in SECTION 11 66 23.23 - GYMNASIUM VOLLEYBALL SYSTEMS. \*\*\*\*\**

**PART 1 - GENERAL**

**1.1 SUMMARY**

 A. Section includes: **[Wall mounted protection pads] [gym floor covers]** suitable for gymnasium installations.

 B. Related sections:

*\*\*\*\*\* List other specification sections dealing with work directly related to this section such as the following. \*\*\*\*\**

 1. Section 1148[\_] - Scoreboards: Wall mounted electronic scoreboards to be protected.

 2. Section [\_\_\_\_\_] - Clocks: Wall mounted clocks to be protected.

**1.2 SUBMITTALS**

 A. Submit in accordance with Section 01 33 00 - Submittal Procedures:

 1. List of proposed products and product data.

 2. Shop drawings showing elevations, dimensions, fabrication details, and method of attachment.

 3. Samples of protection pad cover fabrics [for selection by Architect].

 4. Manufacturer's installation [and maintenance] instructions.

**PARTS 2 - PRODUCTS**

**2.1 ACCEPTABLE MANUFACTURERS**

 A. Draper, Inc., 411 South Pearl Street, Spiceland, Indiana 47385-0425; 765-987-7999.

 B. Manufacturers of equivalent products submitted and approved in accordance with Section 01630 - Product Substitution Procedures.

**2.2 UL GREENGUARD GOLD CERTIFIED WALL PROTECTION PADS**

 A. Type: Fabric covered urethane wall protection pads; Wall Pads as manufactured by Draper, Inc.

*\*\*\*\*\* Standard size for Draper UL GREENGUARD Gold certified Wall Pads is 24 by 72 inches (610 by 1828 mm). Pads can be custom fabricated to sizes and shapes required to accommodate structural elements, wall openings, and other project conditions. Maximum size is 48 by 96 inches (1219 by 2438 mm). \*\*\*\*\**

 B. Pad shape and size: [Sizes and shapes as indicated on Drawing Elevations.]

 1. Flat, rectangular pads: [24 by 72 inches.] [610 by 1828 mm.] [[\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm].]

 2. L shaped pads: [\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm] by [\_\_\_\_\_] [inches] [mm] high.

 3. C shaped pads: [\_\_\_\_\_] by [\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm] by [\_\_\_\_\_] [inches] [mm] high.

 C. Cushioning material: [2 inches] [50 mm] thick urethane filler with [3.5 pounds] [1588 grams] density.

 D. [Backer: [7/16 inch] [10 mm] Urea-formaldehyde-free Oriented Strand Board] [Pads that wrap around columns or are curved shall be provided without solid backer.]

 E. Cover: Solid vinyl coated polyester fabric with embossed pattern:

 1. Weight: 14 ounces per SY.

 2. Breaking strength: 350 PSI.

 3. Tear resistance: 65 pounds.

 4. Resistant to rot, mildew, and ultraviolet light.

 5. Flammability: Rated self-extinguishing in accordance with California State Fire Code F-230.

 6. Color: [White] [Red] [Yellow] [Dark blue] [Marine blue] [Beige] [Grey] [Black] [Forest green] [Kelly green] [Navy Blue] [Orange] [Maroon] [Purple] [Selected by Architect from manufacturer's standard range.]

 F. UL GREENGUARD Gold Certification: Entire wall pad assembly shall have been submitted to indoor air quality evaluation (IAQ) evaluation in accordance with UL 2811 test method to show compliance with emissions limits on UL 2818 Section 7.1 and 7.2. Materials are tested in accordance with ANSI/BIFMA M7.1-2011 and determined to comply with ANSI/BFMA X7.1-2011 and ANSI/BIFMA e3-2014e credit 7.6.1, 7.6.2 and 7.6.3. Material of emissions of total volatile organic compounds of < 0.22 mg/m3, formaldehyde < 0.0135 ppm, total aldehydes < 0.043 ppm, individual volatile organic compounds < 1/1000 TLV and < ½ chronic REL and total phthalates < 0.01 mg/m3. Manufacturer must be able to provide independent lab and test reports to verify compliance.

 G. ASTM: Pads shall meet all requirements of ASTM 2440-04. Manufacturer must be able to provide independent lab and test reports to verify compliance.

 H. Construction: Cushioning material adhered to backer and panel fully wrapped with fabric which is stapled to backer such that backer is not exposed on front or sides.

*\*\*\*\*\* Typically Wall Pads are provided with flanges top and bottom for mounting. As an option, Z mounting clips can be provided at panel top in lieu of top flange or at top and bottom with no flanges. \*\*\*\*\**

1. Provide [1 inch] [25 mm] wide fabric flanges at panel bottom [and top] and [Z clips at top] [Z clips at bottom and top] [channel system] for wall mounting panels.

*\*\*\*\*\* Pads without solid backing that wrap around columns or curve are provided with hook and loop attachment strips or with Z mounting clips top and bottom. \*\*\*\*\**

 J. Attachment: Provide pads without solid backing with [hook and loop strips at top of q pad] [Z mounting clips top and bottom].

**2.3 UL GREENGUARD GOLD CERTIFIED, CLASS A FLAME RETARDANT WALL PROTECTION PADS**

 A. Type: UL GREENGUARD Gold certified, Class A Flame Retardant fabric covered foam wall protection pads; Wall Pads as manufactured by Draper, Inc.

*\*\*\*\*\* Standard size for Draper UL GREENGUARD Gold certified, Class-A Flame Retardant Wall Pads is 24 by 72 inches (610 by 1828 mm). Pads can be custom fabricated to sizes and shapes required to accommodate structural elements, wall openings, and other project conditions. Maximum size is 48 by 96 inches (1219 by 2438 mm). \*\*\*\*\**

 B. Pad shape and size: [Sizes and shapes as indicated on Drawing Elevations.]

 1. Flat, rectangular pads: [24 by 72 inches.] [610 by 1828 mm.] [[\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm].]

 2. L shaped pads: [\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm] by [\_\_\_\_\_] [inches] [mm] high.

 3. C shaped pads: [\_\_\_\_\_] by [\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm] by [\_\_\_\_\_] [inches] [mm] high.

 C. Cushioning material: [2 inches] [50 mm] thick, flame retardant open cell neoprene foam with [6 pounds] [2722 grams] density.

 D. [Backer: [[7/16 inch] [10 mm] urea-formaldehyde free Oriented Strand Board.] [Pads that wrap around columns or are curved shall be provided without solid backer.]

 E. Cover: Solid vinyl coated polyester fabric with embossed pattern:

 1. Weight: 14 ounces per SY.

 2. Breaking strength: 350 PSI.

 3. Tear resistance: 65 pounds.

 4. Resistant to rot, mildew, and ultraviolet light.

 5. Flammability: Rated self-extinguishing in accordance with California State Fire Code F-230.

 6. Color: [White] [Red] [Yellow] [Dark blue] [Marine blue] [Beige] [Grey] [Black] [Forest green] [Kelly green] [Navy Blue] [Orange] [Maroon] [Purple] [Selected by Architect from manufacturer's standard range.]

 F. UL GREENGUARD Gold Certification: Entire wall pad assembly shall have been submitted to indoor air quality evaluation (IAQ) evaluation in accordance with UL 2811 test method to show compliance with emissions limits on UL 2818 Section 7.1 and 7.2. Materials are tested in accordance with ANSI/BIFMA M7.1-2011 and determined to comply with ANSI/BFMA X7.1-2011 and ANSI/BIFMA e3-2014e credit 7.6.1, 7.6.2 and 7.6.3. Material of emissions of total volatile organic compounds of < 0.22 mg/m3, formaldehyde < 0.0135 ppm, total aldehydes < 0.043 ppm, individual volatile organic compounds < 1/1000 TLV and < ½ chronic REL and total phthalates < 0.01 mg/m3. Manufacturer must be able to provide independent lab and test reports to verify compliance.

 G. Fire Rating: Entire pad assembly has been tested and meets the requirements of NFPA 101 Life Safety Code for class A rating (flame spread 0-25 and smoke development 0-450) when tested in accordance with ASTM E-84 (also published as NFPA-255, ANSI 2.5, UBC 8-1 (42-1) and UL 723). Entire pad assembly has been tested and meets the criteria set forth in the 2003 IBC section 803.2.1 when tested in accordance with NFPA 286. NFPA 286 does not publish pass/fail criteria.

 H. ASTM: Pads shall meet all requirements of ASTM 2440-04. Manufacturer must be able to provide independent lab and test reports to verify compliance.

 I. Construction: Cushioning material adhered to backer [with liner positioned on top of foam] and panel fully wrapped with fabric which is stapled to backer such that backer is not exposed on front or sides.

*\*\*\*\*\* Typically Wall Pads are provided with flanges top and bottom for mounting. As an option, Z mounting clips can be provided at panel top in lieu of top flange. \*\*\*\*\**

 J. Provide [1 inch] [25 mm] wide fabric flanges at panel bottom [and top] and [Z clips at top] [Z clips at bottom and top] [channel system] for wall mounting panels.

*\*\*\*\*\* Pads without solid backing that wrap around columns or curve are provided with hook and loop attachment strips or with Z mounting clips top and bottom. \*\*\*\*\**

 K. Attachment: Provide pads without solid backing with [hook and loop strips at top of pad] [Z mounting clips top and bottom].

*\*\*\*\*\* Wall Pad Cutout Trim Kits provide clean trim around cutouts to allow access to receptacles or wall switches. Select the trim kits you want below, and delete the remaining paragraphs. \*\*\*\*\**

 L. 3" x 5" Wall Pad Cut-Out Kit for Single Gang openings.

 1. Color: Grey

 2. Color: Black

 3: Number of Kits: \_\_\_\_\_

 M. 7" x 7" Wall Pad Cut-Out Kit for Dual Gang openings/Fire Alarm Pull Stations.

 1. Color: Grey

 2. Color: Black

 3: Number of Kits: \_\_\_\_\_

 N. Large Wall Pad Cut-Out Kit for large items including fire extinguishers, water fountains, or similar fixtures. consist of molded inside corners, outside corners, straight strips and splices to allow for almost any size and shape of cutout necessary. Straight Strips and Corners are molded from a custom flame resistant thermoplastic elastomer formulation and have a Shore-A durometer hardness of approximately 89. Strips and corners can be field cut to exact required dimensions.

 1. Inside Corner-Grey. Number: \_\_\_\_\_\_

 2. Inside Corner-Black. Number: \_\_\_\_\_\_

 3. Outside Corner-Grey. Number: \_\_\_\_\_\_

 4. Outside Corner-Black. Number: \_\_\_\_\_\_

 5. Trim Kit Strip, 30”-Grey. Number: \_\_\_\_\_\_

 6. Trim Kit Strip, 30”-Black. Number: \_\_\_\_\_\_

 7. Trim Kit Splices (package of 8). Number: \_\_\_\_\_\_

**2.4 GRAPHIC WALL PROTECTION PADS**

*\*\*\*\*\*\* We do not suggest placing graphic pads next to standard pads. Graphic pads are designed to stand out and look like a piece of art. Due to the printing process it is not possible to exactly match standard vinyl colors and textures that may be placed directly next to the printed pads. In cases where it is necessary to place graphic pads next to standard pads, we suggest using pads of a contrasting color, or ordering with the understanding that printed vinyl color cannot exactly match standard vinyl color. \*\*\*\*\*\**

 A. Type: Fabric covered foam wall protection pads with graphics; Graphic Wall Pads as manufactured by Draper, Inc.

*\*\*\*\*\* Standard size for Draper Graphic Wall Pads is 24 by 72 inches (610 by 1828 mm). Pads are also available in 24 x 60 inch (610 by 1524 mm), 24 x 84 inch (610 by 2134 mm) or 24 x 96 inches (610 by 2438 mm) panels, or can be custom fabricated to sizes and shapes required to accommodate structural elements, wall openings, and other project conditions. Maximum size is 48 by 96 inches (1219 by 2438 mm). \*\*\*\*\**

 B. Pad shape and size: Flat, rectangular pads: [[24 by 72 inches.] [610 by 1828 mm.]] [[24 x 60 inches.] [610 by 1524 mm.]] [[24 x 84 inches.] [610 by 2134 mm.]] [[24 x 96 inches.] [610 by 2438 mm.]] [[\_\_\_\_\_] by [\_\_\_\_\_] [inches] [mm].]

 C. Cushioning material: [[2] inches] [50 mm]] thick polyurethane filler with [ [6 pounds] [2722 grams] density.

 D. Backer: [7/16 inch] [10 mm] Wafer Board.

 E. Cover: Solid vinyl coated polyester fabric with embossed pattern:

 1. Weight: 14 ounces per SY.

 2. Breaking strength: 350 PSI.

 3. Tear resistance: 65 pounds.

 4. Resistant to rot, mildew, and ultraviolet light.

 5. Rated as self-extinguishing in accordance with California State Fire Code
F-230 and Class A-rated in accordance with requirements of NFPA-101.

*\*\*\*\*\* Pads can be supplied with school’s mascot, full color photo, sponsor’s advertising or other art the owner may choose. Draper offers thousands of standard images, and be able to accept owner-supplied graphics in EPS or TIF format. Custom artwork available at an additional charge. Digital printing process insures artwork is sharp and clear from any distance. \*\*\*\*\**

 5. Graphics: Standard graphic design [provided by [owner] [manufacturer] in suitable format.] [custom designed by manufacturer.] Graphics to be printed on pads by a digital 4-color process. Graphic Pads that are silk-screened or made with adhesive vinyl shall not be considered equal. Graphics protected by a clear 3 mil laminate coating to protect against abrasion and fading.

 F. Construction: Cushioning material adhered to backer and panel fully wrapped with fabric which is stapled to backer such that backer is not exposed on front or sides.

*\*\*\*\*\* Typically Wall Pads are provided with flanges top and bottom for mounting. As an option, Z mounting clips can be provided at panel top in lieu of top flange. \*\*\*\*\**

 G. Provide [[1 inch] [25 mm] wide fabric flanges at panel bottom [and top] [and Z clips at top]] [Z clips at top and bottom (no flanges)] [Channel System] for wall mounting panels.

*\*\*\*\*\* Wall Pad Cutout Trim Kits provide clean trim around cutouts to allow access to receptacles or wall switches. Select the trim kits you want below and delete the remaining paragraphs. \*\*\*\*\**

 H. 3" x 5" Wall Pad Cut-Out Kit for Single Gang openings.

 1. Color: Grey

 2. Color: Black

 3: Number of Kits: \_\_\_\_\_

 I. 7" x 7" Wall Pad Cut-Out Kit for Dual Gang openings/Fire Alarm Pull Stations.

 1. Color: Grey

 2. Color: Black

 3: Number of Kits: \_\_\_\_\_

 J. Large Wall Pad Cut-Out Kit for large items including fire extinguishers, water fountains, or similar fixtures. consist of molded inside corners, outside corners, straight strips and splices to allow for almost any size and shape of cutout necessary. Straight Strips and Corners are molded from a custom flame resistant thermoplastic elastomer formulation and have a Shore-A durometer hardness of approximately 89. Strips and corners can be field cut to exact required dimensions.

 1. Inside Corner-Grey. Number: \_\_\_\_\_\_

 2. Inside Corner-Black. Number: \_\_\_\_\_\_

 3. Outside Corner-Grey. Number: \_\_\_\_\_\_

 4. Outside Corner-Black. Number: \_\_\_\_\_\_

 5. Trim Kit Strip, 30”-Grey. Number: \_\_\_\_\_\_

 6. Trim Kit Strip, 30”-Black. Number: \_\_\_\_\_\_

 7. Trim Kit Splices (package of 8). Number: \_\_\_\_\_\_

**2.5 GYMNASIUM FLOOR PROTECTION COVERS**

 A. Type: 3-ply laminated vinyl fabric with Micro-Taffeta finish specifically designed for gym floor covers and polyester scrim for durability; Floor Protection Covers as manufactured by Draper, Inc.

 1. Weight: 22 ounces per SY.

 2. Tensile strength: 216 x 231 PSI.

 3. Tear resistance: 87 x 83 pounds.

 4. Resistant to rot, mildew, and fungus.

 5. Rated as self-extinguishing per California Administrative Code Title 19. Meets requirements for fire resistance in accordance with requirements of NFPA-701 and UL-214.

 B. Size: [12 by 120 feet] [3.7 by 36.6 m]. Allow for 6-12 inches [15-305 cm] overlap between covers.

 C. Color: [Red] [Blue] [Grey] [Beige] [Blue/Beige Duplex] [Red/Grey Duplex].

*\*\*\*\*\* Floor Protection Cover Carts allow for transportation of floor covers to and from the are to be covered. \*\*\*\*\**

 D. Floor protection storage/transportation cart allows for transportation of floor covers to and from the are to be covered, and for easy deployment of floor covers; Floor Protection Cover Cart as manufactured by Draper, Inc.

1. Type: Floor Protection Cover Cart is constructed of 1½" x 14-gauge square tubing and ¼" thick steel plate. Six 6" non-marking casters distribute weight of cart and covers. Cart has folding outriggers that are locked in the down position during use and dual floor locks to hold the cart in place. Cart is supplied with two hand cranks.
2. Dimensions: 148-3/8" x 30" x 60-5/8" (377 x 76 x 154 cm).
3. Finish: Black powder coat.
4. Number of Floor Cover Rolls accommodated: [6] [8]

*\*\*\*\*\* The following options are available on Floor Protection Cover Carts. Retain those paragraphs desired; delete unwanted options. \*\*\*\*\**

1. Sweeper Strip. Strip of soft 2½" (64 mm) long bristles to clean Floor Protection Cover as it is rolled on to cart. Sweeper Strip brackets bolt on to cart and strip is moved side to side as cover is rolled onto tubes.
2. Handheld Tape Dispenser. Dispenser has a heavy-duty steel frame and comfortable plastic pistol grip. Dispenser holds one 3" (76 mm) wide roll of seaming tape and has a double side cutting blade.
3. Walk-Behind Tape Dispenser. Dispenser has a tubular construction with three wheels for stability during use. Front wheel is 7" (178 mm) wide presses tape to surface while user pushes. Dispenser has an overall height of 38¾" (984 mm) and handle grips for comfort during use.
4. Floor Protection Cover Seaming Tape. 3" (76 mm) wide clear nylon tape to secure edges and seams of Floor Protection Cover to reduce trip hazards and make more waterproof. Seaming tape is sold by the carton of sixteen 36-yard (335.6 m) rolls. Tape removes easily and does not leave adhesive residue.
5. Power Winder. Powerful handheld portable drive unit with 115-volt, 1200-watt motor to produce over 250 ft-lbs of torque. Drive unit is reversible and includes heavy-duty snap-in drive adaptor.

**PART 3 - EXECUTION**

**3.1 PREPARATION**

 A. Field verify dimensions prior to fabrication.

 B. Coordinate fabrication of wall protection pads with size and location of switches, electrical outlets, and other wall mounted items; structural framing and bracing projecting from wall surface; and door and other wall openings.

 C. For pads placed around structural columns coordinate required shapes and sizes with actual dimensions of structural members.

 D. Coordinate installation of scoreboard protector with size and placement of scoreboard.

**3.2 INSTALLATION**

 A. Install in accordance with manufacturer's written instructions and shop drawings.

 B. Protection mats:

*\*\*\*\*\* Typically, protection pads are mounted above floor base to protect pads from damage during floor maintenance. \*\*\*\*\**

 1. Mount protection pads [[4 inches] [102 mm] [\_\_\_\_\_] inches above] [flush with] finished floor.

 2. Secure to wall with fasteners along [top and bottom] [bottom and Z clips along top]. Type, size and spacing of fasteners as recommended by manufacturer.

 3. Neatly make cutouts for switches, electrical outlets, and other items on wall and seal with matching vinyl fabric.

 C. Clock protector: Center horizontally and vertically on clock and securely attach to wall with type of fastener recommended by manufacturer.

 D. Scoreboard protector: Suspend with cables attached to building structure so that protector is [36 inches] [914 mm] in front of scoreboard. Center protector horizontally and vertically on scoreboard. Ensure protector hangs level.

 **END OF SECTION**