



# SECTION 11480 DISCUS/SHOT/HAMMER FORM SYSTEMS – DFS & SHFS

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. Provide all equipment and materials, and do all work necessary to furnish and install the Track & Field Equipment, as indicated on the drawings and as specified herein.

#### 1.2 RELATED WORK

- **A.** Examine Contract Documents for requirements that affect work of this section. Other specification sections that directly relate to work of this Section include, but are not limited to:
  - 1. Section 02200 Earthwork; Excavation and Backfill and establishment of subgrade elevations.
  - 2. Section 02511 Asphalt Concrete Pavement
  - 3. Section 02535 Synthetic Track Surfacing
  - 4. Section 02542 Synthetic Field Surfacing
  - 5. Section 03300 Cast-in-Place Concrete; Concrete foundations and bases for goals.

#### 1.3 REFERENCES

- **A.** Comply with applicable requirements of the following standards. Where these standards conflict with other specified requirements, the most restrictive requirements shall govern.
  - 1. U.S. Tennis Court and Track Builders Association
  - 2. National Federation of State High School Associations (NFSHSA)
  - 3. National Collegiate Athletic Association (NCAA)
  - 4. International Amateur Athletic Foundation (I.A.A.F.)
  - 5. Manufacturers Data and Recommended Installation Requirements.

## 1.4 SUBMITTALS

- A. Manufacturers Product Data
  - 1. Provide manufacturer's product literature, technical specifications and other data prior to actual field installation work for Architect or Owner's Representative review.

#### **B.** Shop Drawings

1. Provide drawings of manufacturers recommended installation and foundation requirements prior to actual field installation work for Architect or Owner's Representative review.

#### 1.5 QUALITY ASSURANCE

A. Manufacturers warranties shall pass to the Owner and certification made that the product materials meet all applicable grade trademarks or conform to industry standards and inspection requirements.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Materials delivered to the site shall be examined for concealed damage or defects in shipping. Any defects shall be noted and reported to the Owner's Representative.
- **B.** Replacements, if necessary, shall be immediately re-ordered, so as to minimize any conflict with the construction schedule.
- **C.** Sound materials shall be stored above the ground under protective cover or indoors so as to provide proper protection.

## PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- **A.** Manufacturers and product selections named are provided to establish the minimum standard.
  - 1. Track & Field Equipment As manufactured by AAE (Aluminum Athletic Equipment Co.); 1000 Enterprise Drive, Royersford, PA 19468; Toll Free (800) 523-5471.

## 2.2 TRACK & FIELD EQUIPMENT

- **A.** Discus/Shot/Hammer Form System- Shall be as manufactured by AAE:
  - Model # DFS (Discus Form System), nominal 10' x 10' x 6" completely welded aluminum concrete form system assembled in two (2) halves with Concrete-Flo<sup>™</sup> design system grid pattern, .250" thick 6061T6 structural aluminum material with pre-formed .250" thick 2" x 2" to 8' 2 1/2" diameter 6061T6 aluminum angle with <sup>3</sup>/<sub>4</sub>" offset concrete screed line for discus event, .250" thick corner ribs along with eight (8)1/2"-13x12" long driving anchor bolts, six (6) .750" I.D. 6061T6 aluminum drain tubes welded flush with <sup>3</sup>/<sub>4</sub>" depressed concrete for water displacement into crushed stone sub-base, drain tube installation plugs included, all stainless steel hardware included, Consult local building codes
  - Model # SHFS (Shot/Hammer Form System), nominal 10' x 10' x 6" completely welded aluminum concrete form system assembled in two (2) halves with Concrete-Flo<sup>™</sup> design system grid pattern, .250" thick 6061T6 structural aluminum material with pre-formed .250" thick 2" x 2" to 7' 0" diameter 6061T6 aluminum angle with ¾" offset concrete screed line for shot/hammer event, .250" thick corner ribs along with eight (8)1/2"-13x12" long driving anchor bolts, six (6) .750" I.D. 6061T6 aluminum drain tubes for water displacement into crushed stone sub-base, drain tube installation plugs included, ATBC toe board and concrete anchors included in this model with all stainless steel hardware, Consult local building codes

## PART 3 EXECUTION

## 3.1 INSPECTION

- **A.** Examine the areas and conditions where equipment and systems are to be installed and notify the contractor of conditions detrimental to the proper and timely installation and completion of the work.
- **B.** Do not proceed with the work until unsatisfactory conditions have been corrected by the contractor in a manner acceptable and to the satisfaction of the Architect/Engineer or Owner's Representative.

## 3.2 INSTALLATION

A. All athletic equipment shall be installed as indicated on approved submittals as recommended and in strict accordance with manufacturer's written directions and as indicated on the drawings and specified herein.

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- **B.** All concrete footings for athletic equipment shall be installed as indicated on the drawings and in accordance with Section 03300, Cast-in-Place Concrete.
- **C.** All sleeves required for athletic equipment installation shall be set plumb and true to line and grade in concrete as indicated on the drawings and per manufacturer's recommendation.
- **D.** All athletic equipment shall be installed in strict accordance with the latest rules, regulations and specifications governing that sport or event for which it is being installed.

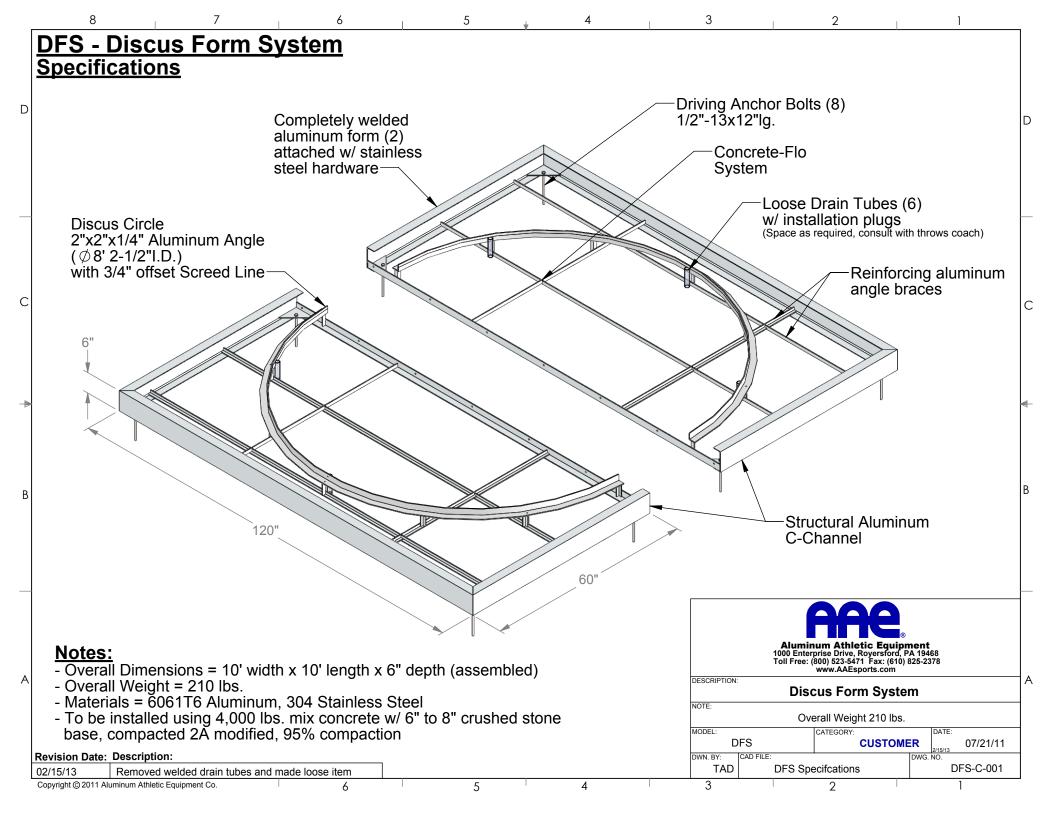
## 3.3 TESTING, ADJUSTMENT AND OPERATION

- A. All athletic equipment requiring testing, adjustments and operation shall be tested for proper operation and adjusted to conform to specified standards.
- **B.** Provide certifications as required, indicating that equipment has been tested and adjusted to conform to specified standards.
- **C.** Provide operating and maintenance instructions and manuals to Owner designated personnel for the proper operation and care of equipment after equipment has been tested and adjusted to conform to specified standards.

## 3.4 CLEANING

**A.** Upon completion of work in any given area, remove all trash and debris from the work area and leave in clean condition.

## - END OF SECTION -



# DFS & SHFS DISCUS/SHOT/HAMMER FORM SYSTEMS INSTALLATION INSTRUCTIONS

## **GENERAL SPECIFICATIONS:**

The Discus Form System (DFS) and Shot & Hammer Form System (SHFS) circles are  $2" \times 2" \times 1/4"$  aluminum angle rolled to a specified diameter (7'0" for Shot and Hammer and 8' 2-1/2" for Discus) and welded together into two (2) halves with cross angle supports and channel border, the halves bolt together to create one unit form system in which to level for a permanent concrete pad installation with a depressed throwing area.

Outline for a successful installation is as follows:

- \* The circle and form system must be securely anchored before concrete is poured.
- \* The circle must be held to true size (diameter) during the concrete phase to prevent the circle from creeping out of shape.
- \* The concrete pad and the depressed pad should both be level.
- \* A suitable drainage system should be installed connecting to the six (6) existing drain tubes which are welded and equally spaced around the inner edge of the circles. Consult local building codes for drainage requirements and information.



# DFS & SHFS DISCUS/SHOT/HAMMER FORM SYSTEMS INSTALLATION INSTRUCTIONS

## CIRCLE ASSEMBLY:

- 1. Using the provided hardware, bolt the two halves together.
- 2. Make sure the tops of the arcs are flush on both sides of the circle where they are bolted together.

# **CIRCLE INSTALLATION:**

- 1. Dig an area approximately 11'0" x 11'0" x 12" deep. (Consult local building codes for concrete depth and drainage requirements.)
- Position and level the form on a base of crushed stone (Consult local codes for drainage requirements) so that the top of the form is 1/4" above ground level. Check all levels for plumbness.
- 3. Position and level the DFS or SHFS, centered in the pit. Use bricks (or some sturdy support) to elevate the channel border to a level where the top of the border is 3/4" above ground level. Level circle as necessary on support blocks. Make sure the diameter is correct (7'0" for Shot and Hammer and 8' 2-1/2" for discus) and measurements from all points of the circle are equal. Once circle is leveled and trued, anchor the form securely to the ground with anchor pins, long bolts, or tie down wire (not included) through the existing gusset holes in the corners of the form system. Check all levels.
- 4. With the form leveled and anchored, pour the cement inside and around the circle to a level that is **3/4**" **below** the top of the circle. Follow 3/4" recessed screed line on the inside face of the circle. Continue pouring on the outside of the circle until the concrete is flush with the top outside of the circle and flush with the outside surrounding channel of the form.
- 5. Consult with the school's Throw's Coach for the desired surface finish of the concrete on the inside of the circle. Either a fine or medium finish may be desired.
- 6. Allow concrete to harden.
- 7. Area surrounding newly installed form system should be graded flush with crushed stone or fresh topsoil and grass seed.

## FOR TECHNICAL ASSISTANCE, CALL 1-800-523-5471

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