



## 47<sup>th</sup> Annual (2014) NATIONAL DRAFTING CONTEST

### **PURPOSE:**

The purpose of this contest is to encourage excellence in effort and discipline, and to give recognition to outstanding students and design/drafting programs.

### **ELIGIBILITY:** To be eligible students must be:

- A current member of an Association Student Chapter.
- Currently enrolled in a school with curriculum certified by the Association.
- Currently enrolled in a school having an Educational Institution Membership.

\*Entrants may not be employed in a professional design drafting position.

### **DEADLINE:**

All entries must be received/posted no later than December 18, 2013. Due to the time constraints required to distribute entries to the judges, any drawings received after that date will not be accepted. **A secure FTP Site is being developed which will allow the Instructor to submit entries; instructions will be posted at a later date.**

### **GENERAL RULES:**

See Category Section for specific additional rules that may apply.

- Only ONE entry per student.
- All entries must be submitted by the instructor.
- Entries submitted by individual students, will not be accepted.
- See **Attachment 1-Entry Naming Requirements** for format and file naming conventions.
- Multiple sheet entries must be submitted as single PDF files, set-up as they would be plotted for fabrication/production/presentation.
- Drawing entry must be constructed using a standard sheet size (A, B, C or D), according to Division rules). Maximum drawing size is 24"x36".
- Student entries must be submitted using one of the ADDA Drafting Contest drawing sheet formats which can be downloaded in .dxf format from the Attachments folders.
- Entries must be of a student's current work, not a *COPY* or *DIGITIZED* reproduction.
- Drawings must be complete, *unfinished drawings and non-conforming drawings will not be evaluated.*
- Drawings must conform to the latest Drafting/CAD standards, where applicable.
- Drawings that do not conform to standards, incorrect view projection, incorrect format/title strip, messy, wrong subject for Division entered, will not be evaluated.

## **Instructors are expected to inspect and screen drawings prior to submission.**

(See guidelines in the Instructors Cover Letter included as part of this package, concerning instructor's role).

- Lettering on manual drawings must be constructed freehand; the use of lettering templates or mechanical lettering devices is not permitted.
- Decisions of the judges are final.
- All entries become the property of the ADDA.

## **JUDGING CRITERIA**

The Judges will be looking for good drafting techniques and skills. Judging is based on the principles and theories of the profession and not based on the creation process. Judges have been directed to evaluate entries according to the 'letter of the rules.' Judging is based on both industry standards and ANSI/ASME Standards.

1. Appearance/Neatness
2. Accuracy
3. Line work, Line type differentiation
4. View selection
5. Organization (correct view placement)
6. Dimensioning, dimensioning styles
7. Lettering, font size and appropriateness
8. Spelling
9. Title Block (correct, unmodified use of the ADDA Contest formats)
10. Creativity
11. Reproducibility and legibility of plot

The Contest Committee will direct judging.

Feedback will be provided to each contributing institution concerning the status of all entries after the judging is completed.

## **AWARDS & RECOGNITION**

The winning entries in each division will be indicated by the following awards.

- **BOARD OF GOVERNORS AWARD OF EXCELLENCE**
- **BOARD OF DIRECTORS AWARD**
- **PRESIDENTIAL AWARD**

A recognition certificate will be awarded to each of the three places in each Division. However, awards may not be granted for all places. For instance, a Division may have 10 entries but only 2 would qualify for awards. A minimum score of 70 is required to place.

**The Board of Governors winners will also receive a \$100.00 cash prize and a voucher for the conference fees worth up to \$677.00.** Winners will be invited to accept their award during the Annual Conference, during the week of April 7-11, 2014 in Kansas City, MO, at the Holiday Inn Plaza. ADDA will provide meals during the conference sessions on Wednesday, Thursday and Friday for the attendee. All other meals are at the attendee's expense. ADDA does not furnish Transportation or Lodging to or from the Conference for any attendee.

All winning entries will be displayed at the Annual Conference and names will be published on the American Design Drafting Association's website [www.adda.org](http://www.adda.org).

## **DIVISION/CATEGORY REQUIREMENTS**

**Category A is for advanced students.** An advanced student is defined as any student that has completed high school and is furthering their education at any post-secondary institution. You will notice that this category will contain both CAD and manually prepared entries.

- **DIVISION A-RES** Architectural Residential Design Drafting
- **DIVISION A-APRE** Architectural Rendering
- **DIVISION A-MECH** Machine and Mechanical Working Drawings
- **DIVISION A-TILM** Technical Illustration, Mechanical

**Category B is for beginning students.** A beginning student is defined as any student that has not graduated high school but it may include any non-graduate of high school that may be taking post-secondary classes. (i.e. dual enrollment classes or community/tech school classes) You will notice that this category will contain both CAD and manually prepared entries.

- **DIVISION B-ARES** Architectural Residential Design Drafting
- **DIVISION B-APRE** Architectural Rendering
- **DIVISION B-MECH** Machine and Mechanical Working Drawings
- **DIVISION B-TILM** Technical Illustration, Mechanical

### **Manual Drafting Entry Sheet Formats:**

- Dimensions for the Mechanical sheet format, Title Block and Bill of Materials are shown in **Attachment (Mechanical Title Block/Sheet)**.
- For manually constructed Architectural entries the Format and Title Strip dimensions are given in **Attachment (Architectural D-Size Sheet)**.

### **Residential Architectural Design and Drafting** **Divisions A-ARES & B-ARES**

- Submit as a single PDF file with plot set-up for construction print, black line-work, and no solid fills, on white background.
- Drawings entered in the current contest must be submitted on a MAXIMUM of FIVE (5) Architectural D-size" sheets.

See **Attachment: (Architecture)** for design criteria.

### **Architectural Rendering** **DIVISIONS A-APRE, B-APRE**

#### **A-APRE and B-APRE – Architectural Rendering**

Prepare an architectural rendering of the 2013 contest problem from the Residential Architectural contest. The rendering must display the full structure and incorporate all of the external materials that are indicated on the architectural contest description. Be sure the rendering displays the structure from an angle of view that depicts a bird's eye view from the front-right corner of the structure's double garage much the same way an isometric drawing of the structure would depict the structure.

# **Mechanical Drafting**

## **Divisions A-MECH & B-MECH**

### **Division A-Mech & B-Mech**

#### **What You Are To Do:**

Prepare a set of working drawings for Fig. 16-44 ***The Drill Press Vise***. The drawings will be constructed using standard 'B'- size (11" x 17") sheets; a maximum of four sheets may be used, each containing the ADDA Contest mechanical title block. The drawing package must include the following.

#### **Assembly Drawing**

- The Assembly Drawing must contain *orthographic views of the assembly, identifying all the individual parts and showing their relationship to each other.*
- Bill Of Materials (Parts List)
- Identification Balloons need to be added with thin leaders to identify the individual parts on the assembly drawing.

#### **Detail Drawings**

- Detail drawings of the individual parts and their machining details must contain a minimum of 2 standard orthographic views using 3rd angle projection.
- All non-decimal dimensions need to be converted to three decimal places and placed on the drawing in the appropriate location. i.e. (.XXX)
- All detail drawings of parts must be fully dimensioned.
- A-MECH Division should include detail drawings of parts #1 and #2 tolerance considerations (GD&T) due to their mating relationship per (ANSI Y14.5M).
- Parts #9 and #10 are not required as part of the assembly view, but are required as part of the detail drawings.
- Identification Balloons will be used underneath each detail to identify the
  - o Name of the detail.
  - o Number required.
  - o Material, using the SAE Steel Numbering System.

See **Attachment (Mechanical)** for design criteria.

## **Technical Illustration, Mechanical** **DIVISIONS A-TILM, B-TILM**

### **A-TILM and B-TILM – Fig 16-44 The Drill Press Vise**

Prepare an animation, in .avi format of Fig. 16-44 The Drill Press Vise. The animation must begin with an exploded view of the individual components which must move into the assembly, and then the assembly must rotate 180 degrees. The presentation must be limited to no more than 30 seconds.

**\*Parts #9 and #10 are optional and are not required as part of the Animation.**

Individual components must be illustrated in functional position, and displaying the maximum amount of features.

- Use a **THIN** centerline to indicate axis of explosion. Use 'flow lines' if parts need to be offset to fit on the sheet. Flow lines will also be **THIN** centerlines. Flow lines may be straight or jogged but both ends must be oriented along same axis along which they will assemble.
- Use numbers in balloons with straight leaders to identify the individual parts (and/or sub-assemblies). The drawing must include a parts/material list, listing minimally the item number, quantity, material or part number, and a brief specification/description/source, etc. Allow room for further additions to part list when laying out the page.

Drawing and material list must be on a single, „D-size,“ 22”x34” sheet with the mechanical title block. Choose subject and scale carefully for the sheet size. Judging criteria will be based upon subject appropriateness, detail clarity, and logical sequence of parts, page layout, print clarity, and overall effectiveness.