

ASSIGNMENT SPECIFICATION

Student name:		Student P number:	
Programme:	MDes[Hons] BA[Hons] PD MDes[Hons] BSc[Hons] PDT	Faculty/School:	FAD/SD&AA
Module:	3D CAD & Visualisation	Module Level (4, 5, 6, 7):	4
Module code:	M4X02235	Contribution to Overall Module Assessment (%):	50
Lecturer:	MA	Internal Verifier:	SJ
Assignment Title:	Fusion 360	Assignment No (x of x):	2 of 2

Hand Out Date:	2.00pm 14.05.18	Submission Date:	4.30pm 14.05.18	Feedback Date:	Wk beginning 04.06.18
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Referencing:	Written coursework submissions: In the main body of your submission you must give credit to authors on whose research your work is based. Append to your submission a reference list that indicates the books, articles, etc. that you have read or quoted in order to complete this assignment (e.g. for books: surname of author and initials, year of publication, title of book, edition, publisher: place of publication). Harvard or APA referencing systems is accepted. Practical coursework submissions: You must give credit to designers or artists whose work you have used to inspire your own. Where specific designs or images have been used in your development work you must indicate the name of the 'author' and details of the source of the work (e.g. book, journal, website etc.).			
Disclosure:	I declare that this assignment is all my own work and that I have acknowledged all materials used from the published or unpublished works of other people. All references have been duly cited.			
Student's Signature:	<i>Assignments will not be accepted without a signature here and date ></i>		Date of submission:	
Turnitin: Lecturer to tick to indicate if an electronic version of the assignment must be submitted to Turnitin. If both electronic and hard copy submissions are required then both versions MUST be submitted by the same deadline. No marks will be released until both submissions are received. Note: the Turnitin version is the primary submission and acts as a proof of receipt for the student. A paper receipt must be completed for hard copy submissions, including portfolios and other design work.			YES	
			NO	✓

**Penalties for late submission: Up to ONE week late, maximum mark of 40% for first attempt.
Work cannot be accepted after ONE week and will be recorded as a non-submission, 0%.**

- The Assignment Specification Form **MUST** be at the front of all assignment submission. Assignments will not be accepted without this form, as it is a requirement that you sign the disclosure regarding referencing conventions.
- DO NOT** include this form in your Turnitin submission or it will match many similarities with other students' submissions.

This form must be signed and submitted with your assignment

ASSIGNMENT DESCRIPTION

Learning Outcomes

Module Learning Outcomes being Assessed:

1. Understand and effectively apply fundamental solid and surface modelling construction techniques to generate simple 3D objects in virtual environments using appropriate software applications;

Task

Read the instructions for the practical task carefully. You **MUST** attempt all elements in Task 1, before attempting the remaining tasks, failure to do so could result in your final mark being capped. The test is OPEN BOOK – you are allowed to refer to all course material, Fusion 360 Courseware Tutorials and the On-line Help facility during the assessment period.

Save all task files in the pre-defined Folder.

Tasks:

Using Fusion 360, you should attempt to model, assemble, draw and render the following:

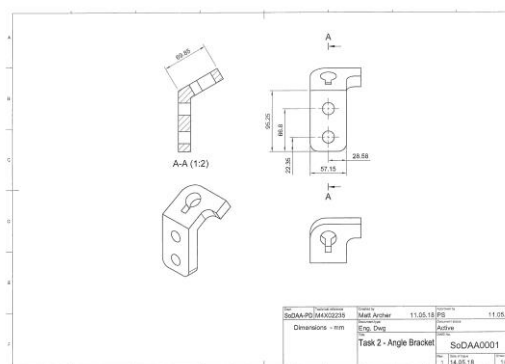
1. Model (construct) accurately the following components as dimensioned in the attached drawings:
 - a. Angle Bracket (Drawing No. SoDAA0001.1) NOTE: this will be used in Tasks 2 & 3
 - b. Offset Bracket (Drawing No. SoDAA0002.0/2.1)
 - c. Cylinder Support (Drawing No. SoDAA0003.0)

Hint – Sketch out the construction steps before starting to model.

Assessment Criteria: Accuracy of modelling and methodology of construction

Task Weighting: 60% (each model – 20%)

2. **ACCURATELY** reproduce the Engineering Drawing below of the Angle Bracket (Drawing No. SoDAA0001) modelled from Task 1a:
 - a. Use the default template: A3 Landscape
 - b. Title box & dimensions as per drawing.



Hint – remember that an Engineering Drawing is a communication medium and should clearly disseminate the visual information i.e. good layout & composition.

Assessment Criteria: Engineering drawing accuracy, composition and layout

Task Weighting: 10%

3. Using the Angle Bracket (Drawing No. SoDAA0001.0) create/model the following assembly (Fig 2):
- Model a Key (Length 150mm) to fit Hole A (**EXACTLY**) as indicated on the Engineering Drawing (Drawing No. SoDAA0001.0)
 - Constrain the Key to **MOVE IN LINE** with the hole axis on the Angle Bracket **WITHOUT ROTATING**.
 - Constraint the translation movement to between -25mm to +25mm

Hint – Remember that components are used to create assemblies.

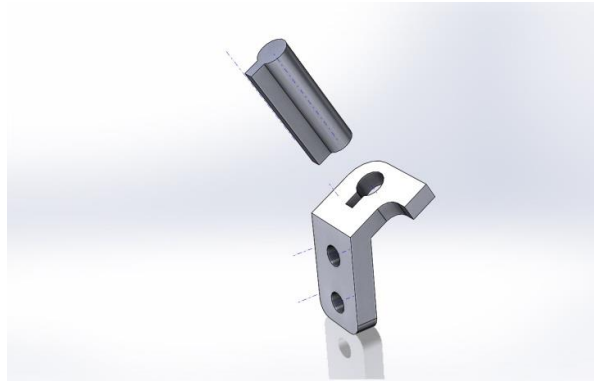


Fig 2

Assessment Criteria: Completed Assembly configuration as specified
Task Weighting: 10%

4. Open and save the pre-modelled Kettle Assembly to **YOUR** folder and reproduce the render in Fig 3:
- Glass main body
 - Yellow support features
 - Chrome heating plate & mesh filter

Hint – Make sure you save the render as a jpeg **AND** email me the file. Remember to switch on perspective!



Fig 3

Assessment Criteria: Rendering composition and material application
Task Weighting: 10%

5. File Management: ensure all files are named as per their drawings, and organised appropriately.

Assessment Criteria: Professionalism
Task Weighting: 10%

Guidance for Students in the Completion of Tasks

This is an Open Book assessment, you may access online tutorials etc. in completing the tasks.

Academic Submission Deliverables:

Ensure that the following components are saved in your Fusion Folder:

1. Modelled Parts:
 - a. Angle Bracket (Drawing No. SoDAA0001.1)
 - b. Offset Bracket (Drawing No. SoDAA0002.0/2.1)
 - c. Cylinder Support (Drawing No. SoDAA0003.0)
2. Engineering drawing: Angle Bracket (Drawing No. SoDAA0001)
3. Assembly: Angle Bracket & Key
4. Render: Kettle jpeg (email: matthew.archer@uwtsd.ac.uk)

Submission Deadline: 4.30pm 14.05.18

Assessment & Feedback

Assessment Criteria:

The assignment deliverables will be assessed in relation to the specified learning outcome using the common assessment criteria specified below. Only Marking Criteria 3 will be used for summative assessment, Marking Criteria 6 will be formative only.

LO 1: Common Assessment and Marking Criteria 3

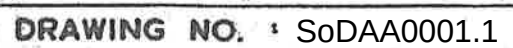
Technical Skill: Effective utilisation of appropriate materials, tools and techniques and the level of skill demonstrated in their application to the realisation process.

Common Assessment and Marking Criteria 6

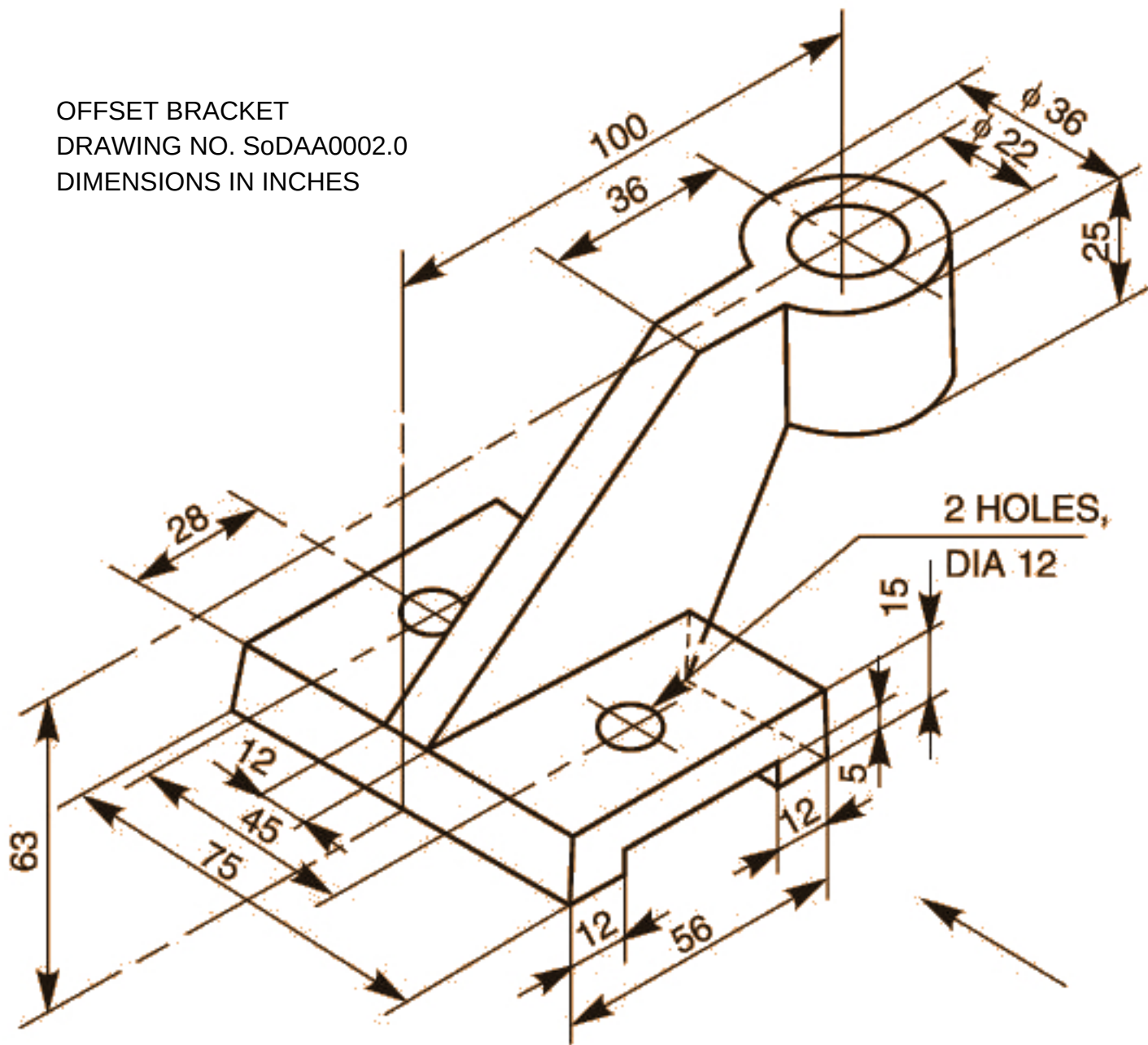
Personal Learning & Development: Personal responsibility demonstrated in managing own learning through programme engagement, self-directed study and reflective practice.

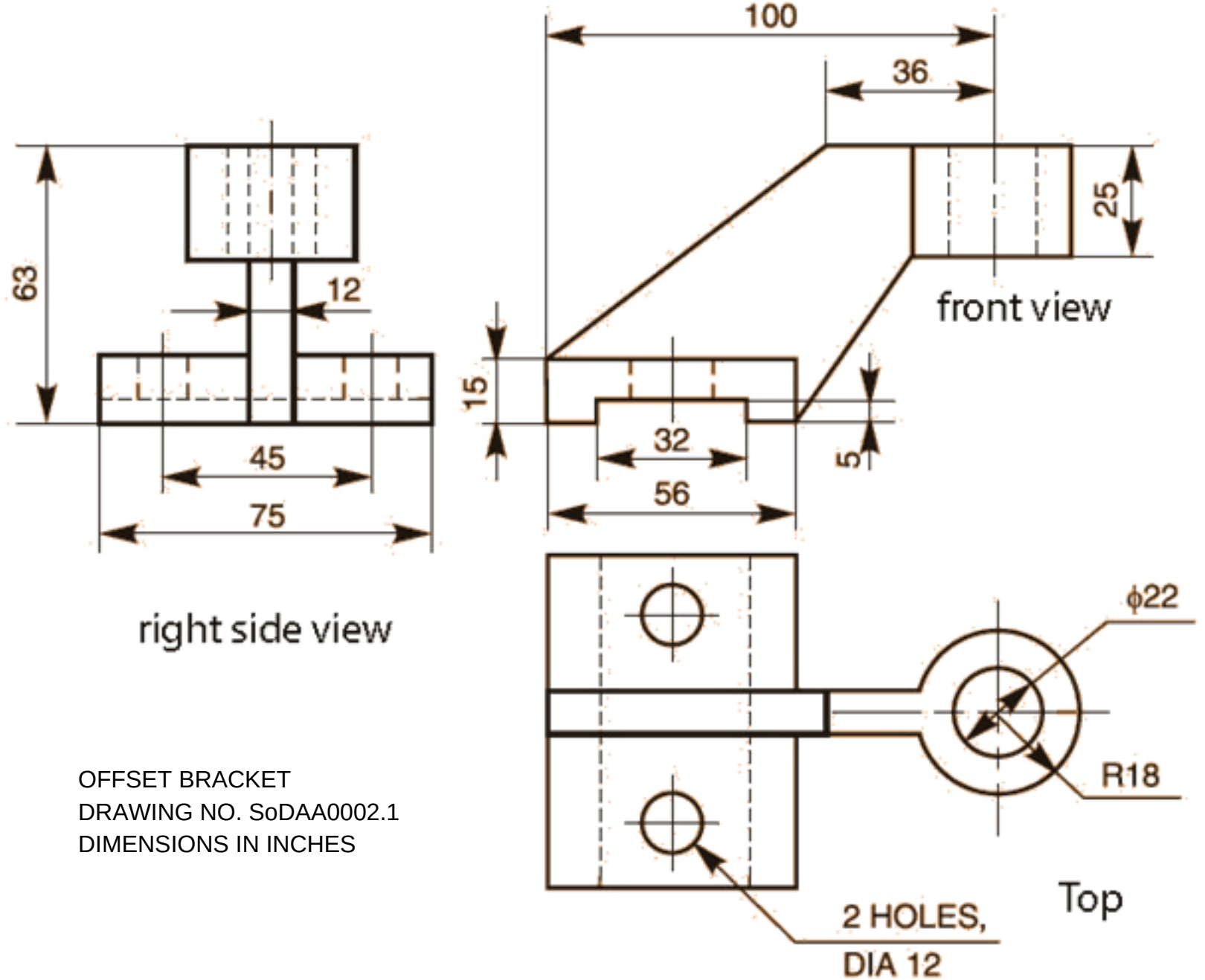
Feedback:

You will be provided with written **SUMMATIVE** feedback and the opportunity to discuss your performance in a studio tutorial during the week beginning 4th June 2018. For the full breakdown of Common Assessment and Marking Criteria into grading categories refer to the table on Moodle.



OFFSET BRACKET
DRAWING NO. SoDAA0002.0
DIMENSIONS IN INCHES

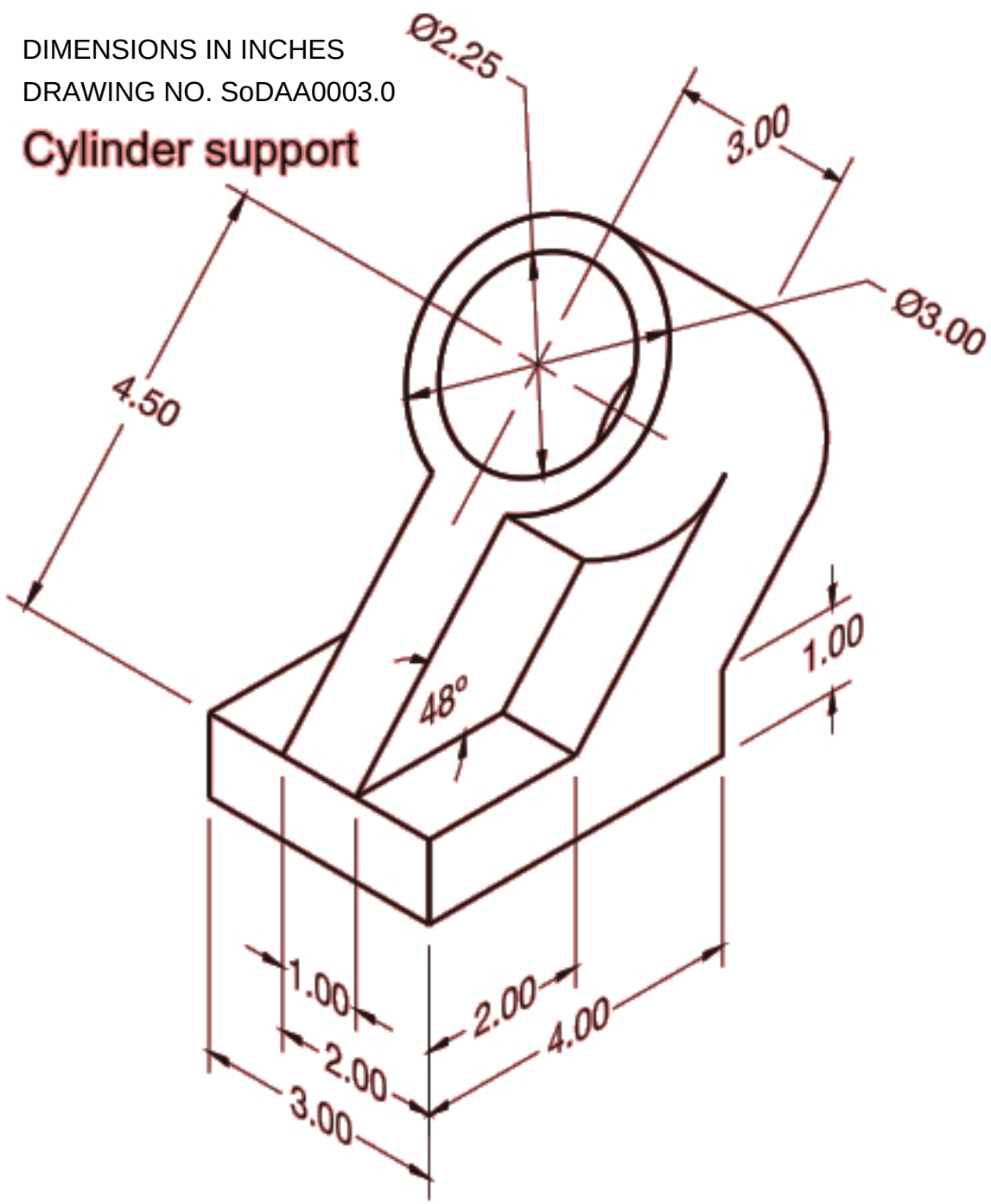


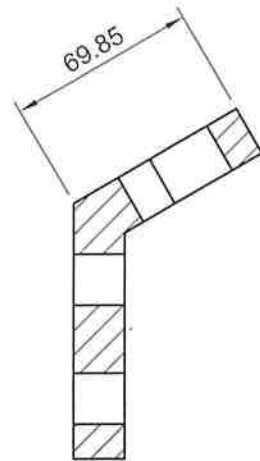


OFFSET BRACKET
DRAWING NO. SoDAA0002.1
DIMENSIONS IN INCHES

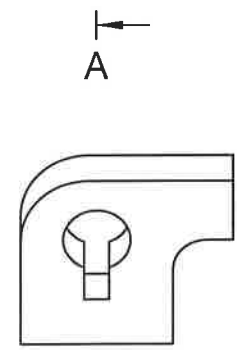
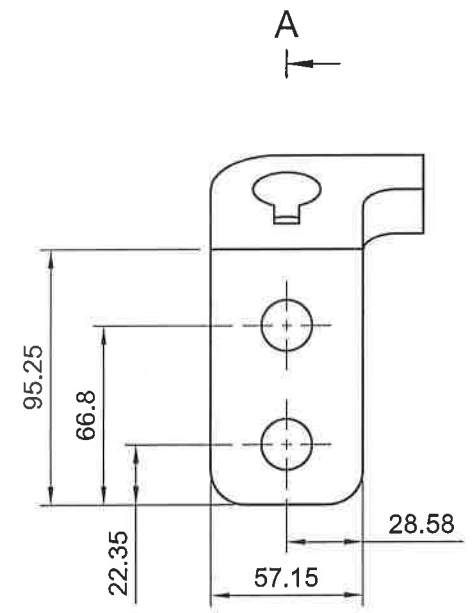
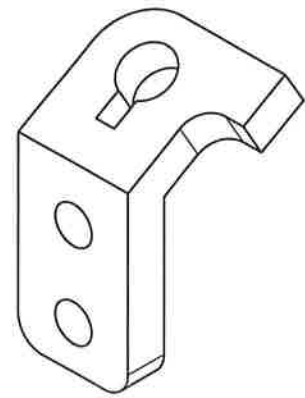
DIMENSIONS IN INCHES
DRAWING NO. SoDAA0003.0

Cylinder support





A-A (1:2)



Dept. SoDAA-PD	Technical reference M4X02235	Created by Matt Archer	11.05.18	Approved by PS	11.05.18
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		Title Task 2 - Angle Bracket	DWG No. SoDAA0001		
		Rev. 1	Date of issue 14.05.18	Sheet 1/1	

