

2019 MICHIGAN SKILLSUSA CHAMPIONSHIPS CONTEST OUTLINE

SKILL OR LEADERSHIP AREA: Welding Fabrication

CONTEST DATE: March 29, 2019

CONTEST LOCATION:

Washtenaw Community College
4800 E Huron River Dr.
Ann Arbor, MI, US
734-973-3627
<http://www.wccnet.edu/>

RESUME:

Each student must submit a one-page printed resume before the contest start at the contest site (present to contest coordinator, not judges). The resume is no longer submitted online. This is the only time that resumes can be turned in. Failure to do so will result in a 10 point penalty.

TASKS TO BE PERFORMED:

- OFC (oxy/fuel cutting)
- SMAW (shielded metal arc welding)
- GMAW (gas metal arc welding)
- GTAW (gas tungsten arc welding)
- FCAW (flux cored arc welding)
- Project assembly. This requires blueprint and weld symbol knowledge and application abilities
- A scoring rubric will be implemented to assess items mentioned above to determine final scores/placement

TECHNICAL COMMITTEE WILL SUPPLY:

- Welding equipment
- Project materials
- Welding filler wire
- Welding gas
- Extension cord
- Grinder with wire wheel, sanding disc and stone wheel
- Fab table
- Sheet metal hand break
- Cutting torch and heating tip
- Safety screens/grinding shields

COMPETITORS MUST SUPPLY THE FOLLOWING OR WILL NOT BE ALLOWED TO PARTICIPATE IN CONTEST:

- **Personal Protective Equipment (PPE):**

- Welding helmet with appropriate lens shade (minimum shade #10)
- Safety glasses (Z87 rated, if student wears prescription glasses, must have Z87 glass covers)
- Flame resistant welding jacket or welding leather
- All leather, above the ankle work boots (no plastic or synthetic materials allowed on boots)
- Cutting glasses, goggles or face shield (shade #5 required)
- Ear plugs (optional)
- Clear grinding shield
- Leather gauntlet style welding gloves
- All Cotton or denim clothing and undergarments (no holes or frays permitted)

- **Hand tools:**

- Pliers
- Files
- Chisels
- Wire brush
- Protractor
- Tape measure
- Combination square
- Clamps (no fixtures allowed)
- Ball peen hammer
- Chipping hammer

NOTES:

- Final results will be announced at the State Conference Awards Ceremony on April 7, 2019 starting at 8:30 am at the DeVos Place in Grand Rapids. The finalists need to attend the Awards Ceremony to receive their medals.
- If you are competing in this contest, please email Glenn Kay at gtkayii@wccnet.edu for the contest blueprint and event details.



2019 Michigan SkillsUSA State Welding Fabrication Competition

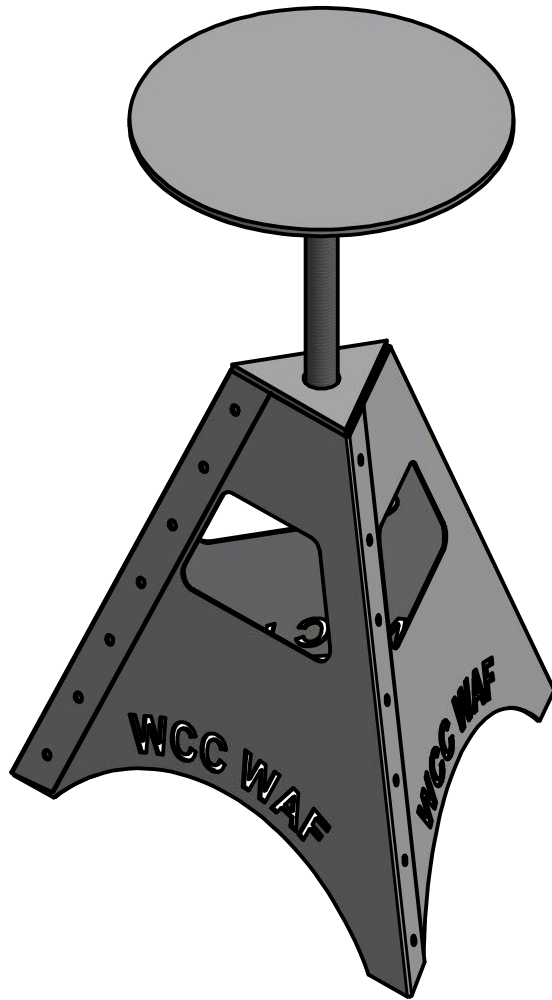
	Items Evaluated	Competitor Teams			
		Possible Points	A	B	C
S T O O L P R O J E C T	Project dimensions conform to print? (-10pts for each indication)	50			
	Project is symmetrical in all directions? (-25pts for each indication)	100			
	Welds free from porosity? (-10pts for each indication)	50			
	Visible grinder marks on final welds? (-10pts for each indication)	50			
	Welds free from undercut? (-5pts for each indication greater than 1/32" in depth and up to an 1/8" in length equals one indication)	50			
	Project is free from slag and spatter? (-10pts for each indication)	50			
	Project is free from Grinder marks? (-10pts for each indication)	50			
	Project free from arc strikes (-10pts for each indication)	50			
	Proper weld process applied in accordance to print (Yes or No)	50			
	Overall craftsmanship (excellent=100pts/average=75pts/poor=25pts)	100			
	Weld length in accordance to print where applicable (Yes or No)	50			
	Stool Seat is level, centered and edges have a smooth round finish (Yes /No)	100			
	Weld size is in accordance to print (-10pts for each non-conformance)	50			
	Team Work- all team members equally participated? (Yes/No)	50			
	Clean Up (Yes/No)	50			
	Safety (-25pts for each violation)	100			
Resume turned in? Yes or No. If no, minus 10pts					
Took Skills Leadership test? Yes or No (only used as tied breaker)					
Points	TOTAL:	1000			

Signature Judge #1	
Signature Judge #2	
Signature Judge #3	
Signature Judge #4	

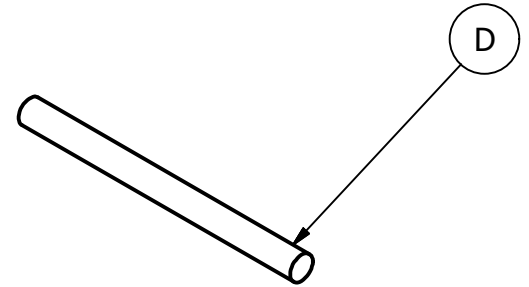
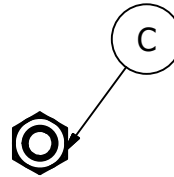
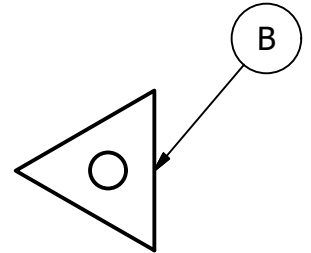
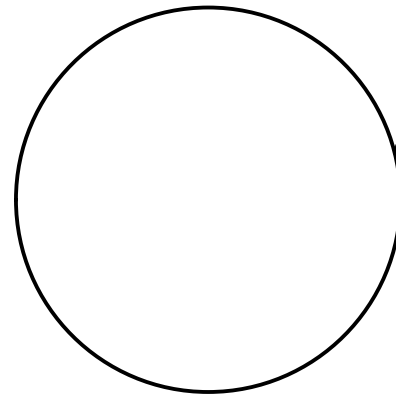
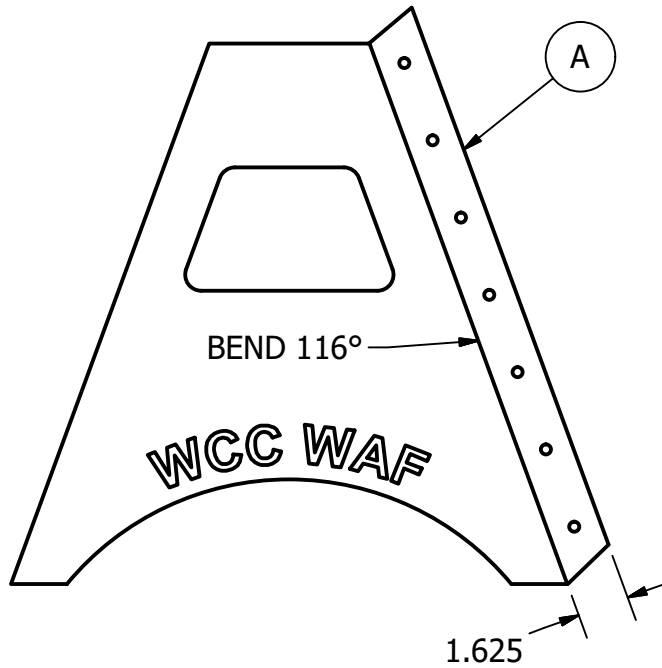
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WASHTENAW COMMUNITY COLLEGE
SKILLS USA WELDING AND FABRICATION

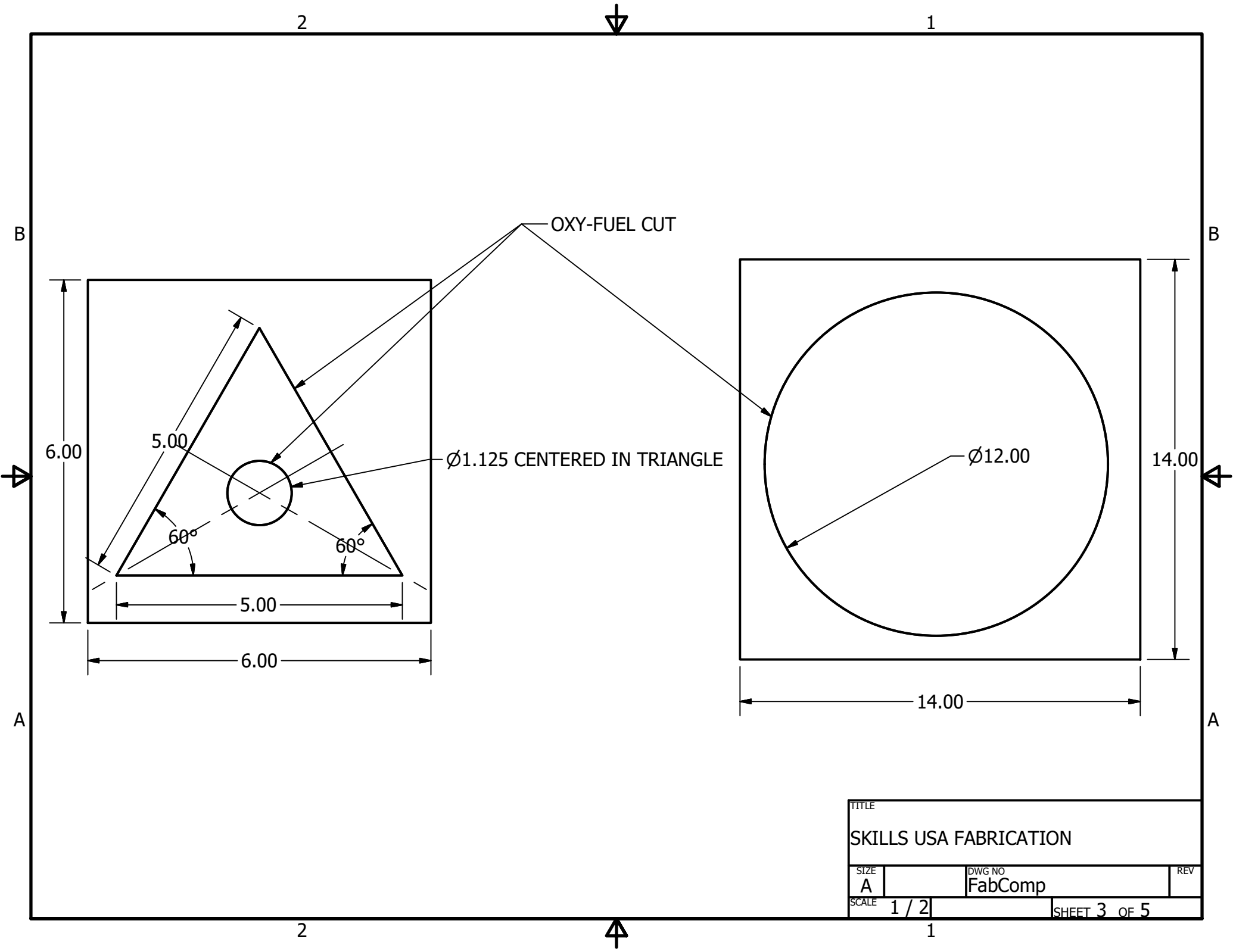


PARTS LIST		
ITEM	QTY	DESCRIPTION
A	3	STOOL SIDE - 14ga CARBON STEEL
B	1	TRIANGLE - 1/4" CARBON STEEL
C	2	ACME NUT
D	1	ACME THREADED ROD - 12"
E	1	STOOL SEAT - 1/4" CARBON STEEL



- NOTES:
 TEAMS WILL HAVE 4 HOURS TO COMPLETE THE PROJECT
 WELDING PROCESSES INCLUDE:
- o SMAW: 1/8 E6010/E7018
 - o GMAW: .035 ER70s-6
 - o FCAW: .045 E71T-1M-H8
 - o GTAW: 1/16 ER70s-6
 - o OFC TORCH WITH 00 AND 000 TIPS

TITLE		
SKILLS USA FABRICATION		
SIZE	DWG NO	REV
A	FabComp	
SCALE	SHEET 2 OF 5	
1/6		

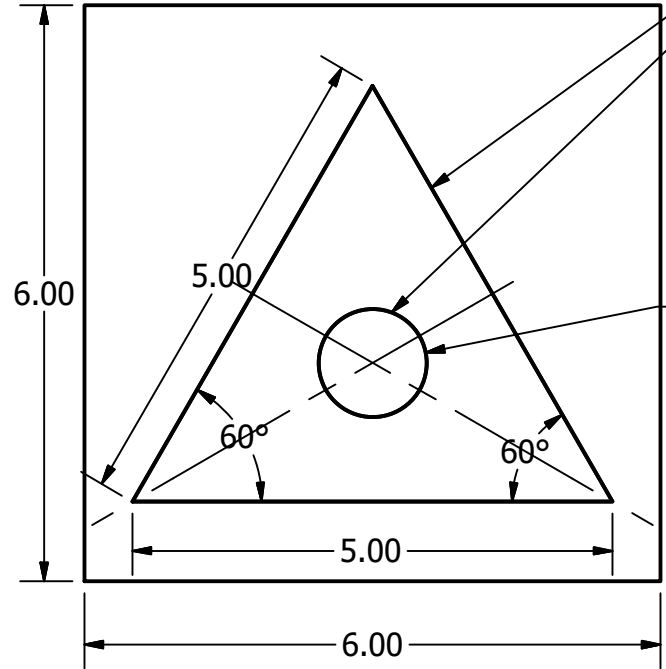


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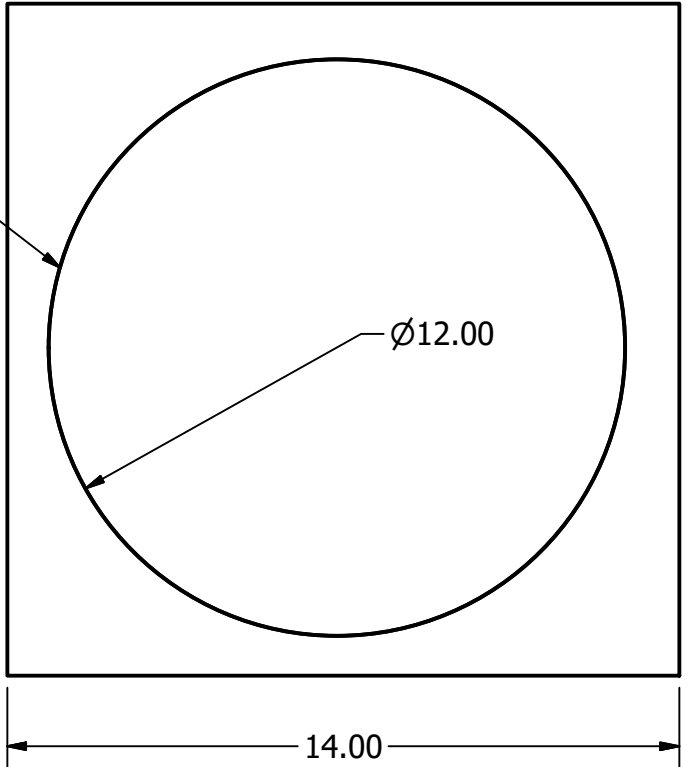
B

B



OXY-FUEL CUT

$\varnothing 1.125$ CENTERED IN TRIANGLE



A

A

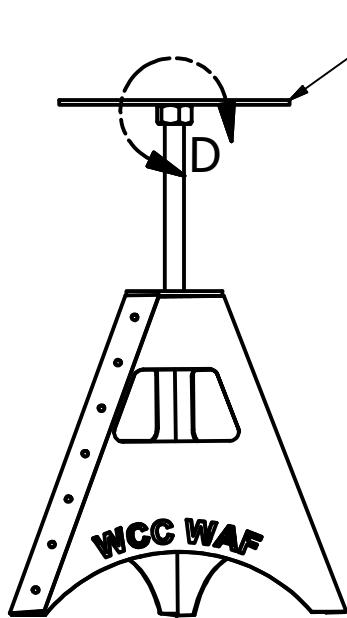
A

A

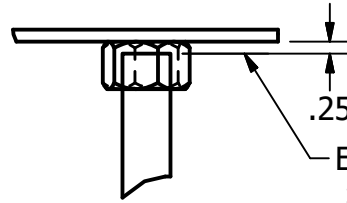
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1

TITLE			
SKILLS USA FABRICATION			
SIZE	DWG NO	REV	
A	FabComp		
SCALE	1 / 2		SHEET 3 OF 5

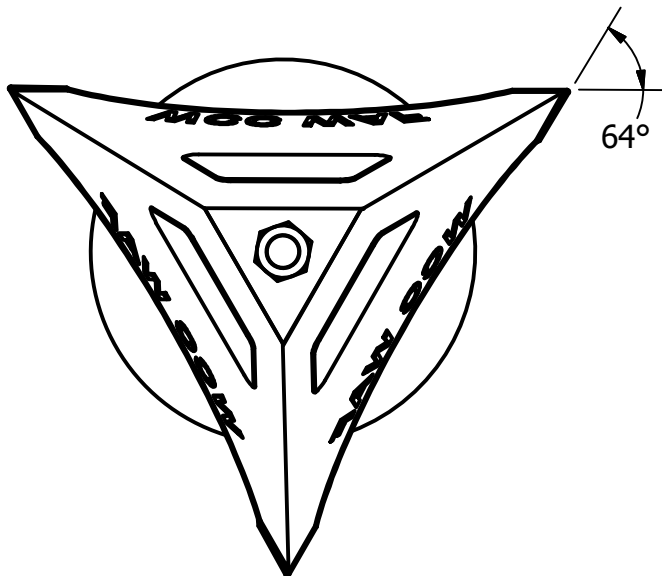


GRIND A RADIUS
ON ALL SEAT EDGES



END OF THREADED ROD SET
1/4" FROM TOP OF NUT

DETAIL D
SCALE 1/4



BOTTOM VIEW

TITLE			
SKILLS USA FABRICATION			
SIZE	DWG NO	REV	
A	FabComp		
SCALE	1/10		SHEET 4 OF 5

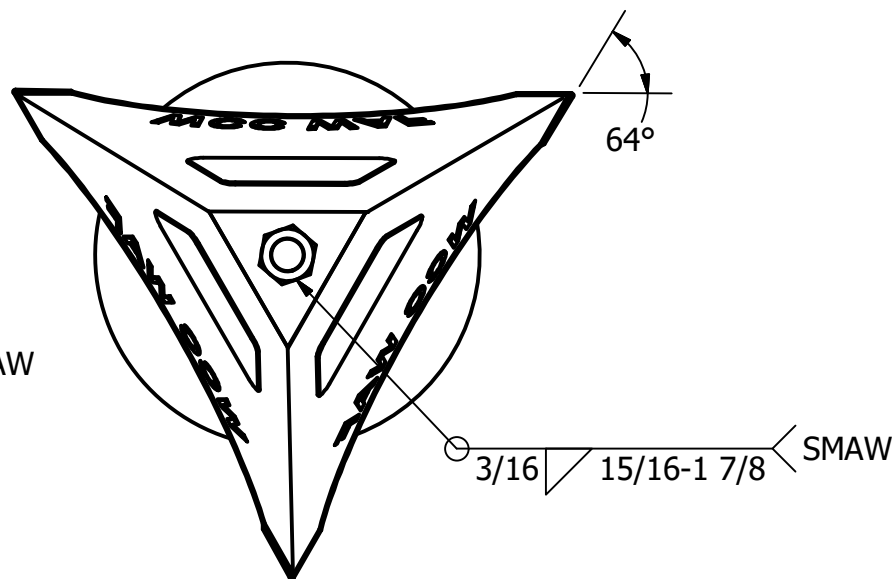
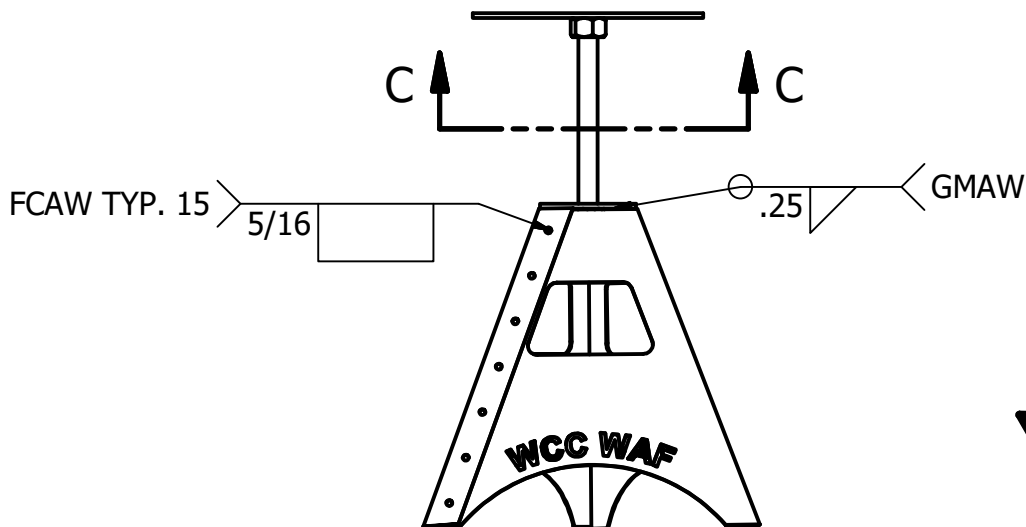
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1



B

B



SECTION C-C
SCALE 1/10

BOTTOM VIEW

A

A

NOTES:

- SUB-ASSEMBLY IS PERMITTED
- WELDS CAN BE DONE IN ANY POSITION
- TACK WITH ANY PROCESS, MUST FOLLOW FINAL WELD PROCESS DESIGNATION
- NO VISIBLE GRINDING MARKS ON PROJECT OR FINAL WELDS-POINTS WILL BE DEDUCTED IF VISIBLE

TITLE		
SKILLS USA FABRICATION		
SIZE	DWG NO	REV
A	FabComp	
SCALE	SHEET 5 OF 5	
1/10		

2

1

