ISME SHEET METAL SKILLS COMPETITION 2025

12 JUNE 2025

The Metalforming Machinery Makers Association

Institute of Sheet Metal Engineering
Now Incorporated Within MMMA

Held At BLACK COUNTRY & MARCHES INSTITUTE OF TECHNOLOGY

Go to our website for the entry form which includes competition details and the Drawing & Marking assessment forms: **isme.org.uk**

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ISME FOREWORD

First of all we want to thank
The Institute of Technology for the use of their facility.

The Institute of Sheet Metal Engineering is a learned body with individual membership open to those employed in the sheet metal and associated industries.

ISME has been established over 70 years and promotes the science of working and using sheet metal and provides opportunities for people to exchange ideas and information.

We also encourage the development of members by providing networking opportunities and creating an institute that people in the industry aspire to join. The encouragement of the development of sheet metal working skills in young people through the annual Sheet Metal Skills Competition is very important to the Institute.

In December 2024, ISME Members agreed that ISME should join forces with the Metal Forming Machinery Makers Association (MMMA).

The Institute has a student grade membership of £20/ year for which you will receive copies of the ISME Journal, Oracle which keeps members up to date with the latest developments and events in the Sheet Metal Industry.

Students Joining on the day of the skills competition get the first years membership free. For details of membership please go to: www.isme.org.uk

BLACK COUNTRY & MARCHES INSTITUTE OF TECHNOLOGY

The Black Country & Marches Institute of Technology (IoT) opened in September 2021 to offer higher technical education for the jobs of today and tomorrow, transforming the local economy and people's lives for the better.

Built as one of only 21 Institutes of Technology nationally, the £22 million campus in Dudley was developed as part of the government's £170m drive to develop higher-level technical skills nationally.

The BCM IoT offers higher technical education and training in the following transformational sectors: Advanced Manufacturing & Engineering, Modern Methods of Construction, Healthcare, Medical Engineering and Digital Technologies.

Specialising in non-traditional routes to higher education, the BCM IoT brings together the training offer of Dudley College of Technology in collaboration with key partners including University of Worcester and Avensys UK Limited.

BCM IoT enjoys superb links with employers, many of which have helped to develop the curriculum offer to ensure students leave the BCM IoT work-ready and equipped with the technical skills and qualifications needed by employers locally, regionally and nationally.

JUDGMENT DAY ITINERARY

09.30

- ISME Judges arrive at 9.30 for registration and competition briefing. Tea/Coffee available.

10.30

- Apprentices and trainers with exhibits arrive and register.
- Tea/Coffee and light refreshments available.

11.30

- Judging Commences
- During this period Apprentices and Trainers go Free of Charge to the Black Country Living Museum.
- This is an award winning open-air museum that tells the story of one of the very first industrial landscapes in Britain.
- Fish & Chips lunch provided from the on-site shop for competitors and trainers.

14.30

- ISME Chairman and ISME Secretary to meet & greet additional Guests.
- Apprentices and Trainers return
- Tea & coffee available.

15.15

- Presentation commences.
- ISME Chairman welcomes guests and thanks sponsors.
- Presentation of certificates and prizes including the Adrian Nicklin Trophy.
- Closed by ISME Secretary.
- Photo's.
- Estimated finish time 4.00pm

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THE ISME COMPETITION 2025 DETAILS

The Sheet Metal Skills Competition Provides a great opportunity for apprentices at Level 2 or Early Entry Level 3 to measure their skills against others in the sheet metal and pressed metal sector.

TEST CADDY PIECE

- The Competitors must self-validate with the help of their tutors and complete the marking and assessment form in the entry form included.
- Regarding the marking out and blank development, the tutor will be responsible for the marks given on the Assessment sheet.
- On the Judgement Day the ISME judges will decide 10 dimensions to check alongside the completed Marking and Assessment form to determine the winner.

Could the Tool Caddy Test Piece be used towards your end of year results?

To be the winner of the ISME Trophy, judges will decide the best Tool Caddy and written project plan on the Judgement Day. This will also include a cash prize.

THE OPEN CLASS

The Open Class Competition is open to all apprentice levels to making a sheet metal object of your choice. (see example pictures) again this will need a written project plan. The winning entry will be marked and judged on the day by ISME Judges and the winner will receive a cash prize.

The Apprentice written Project plan for the Tool Caddy Test Piece & Open Class to include the listed headings below.

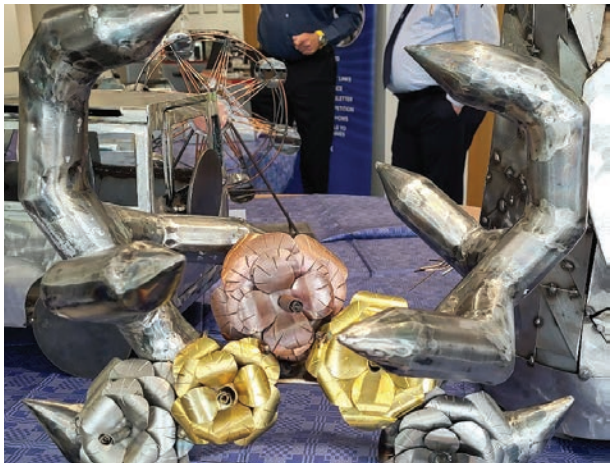
Written Account of Project Work Including:

- Minimum 200 words about you
- Planning the Project
- Health & Safety
- Tools Used
- Assembly Methods
- Cosmetic Finish & safe edges

All information including drawing and marking sheets will be in the entry form that can be found on the ISME website; **isme.org.uk**

All apprentices taking part will receive free of charge 1-year ISME membership

To Enter the competition please complete an entry form for each Apprentice & scan and email to; **ismesec@gmail.com** Any queries please call Bill Pinfold ISME Secretary **07891 499146**.



CATEGORY
OPEN CLASS

Competitors to make metal work piece of your choice.

- Judged Winner Receives Cash Prize
- Written Document Winners Receives Cash Prize

CATEGORY 1
TOOL CADDY DRAWING

L2 TC V1

The competition project is designed to test and compliment the skills and training of learners, trainees and Apprentices entering the Sheet Metalwork Industry or foundation level 2 or early entry Level 3

The project is accompanied by a Marking Schedule which is important that:

- It should be used during the competitor briefing by the Tutor.
- Used by the competitor to validate their work.
- Jointly used by the competitor and Tutor during marking.
- Attached to the test project written account by the competitor.

The test project, marking schedule and written account of the manufacturing processes used must be presented to the Judges on the day of competition assessment.

The Test Project winner Receives a cash prize.

The Test Project Written account winner also Receives a cash prize.

CATEGORY
OPEN CLASS

Marking & Assessment Schedule 2025

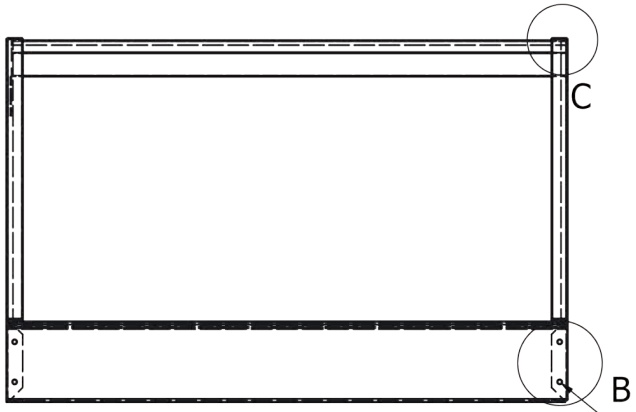
Date		Part Description	
Name		Object	
Company/ Organisation		Judge 1 Initials	
Competitor No.		Judge 2 Initials	
Test Project	Open Class	Judge 3 Initials	Open Class

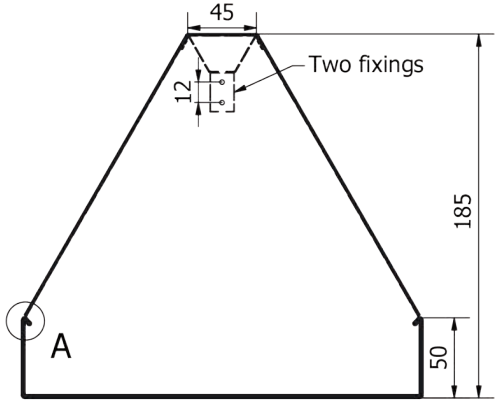
To Be Checked Dimension or Feature	Max Mark	Judges Dimensional and Visual Verification	Mark Awarded	Judges Comments
1. Difficulty	10			
2. Quality	10			
3. Workmanship	10			
4. Finish	10			
5. Content	10			
6. Originality	10			
7. Material used	10			
Make Total	70			
Writen Account of Project Work Including				
8. Minimum 200 words about you	5			
9. Planning the project	5			
10. Health & safety	5			
11. Tools used	5			
12. Assembly methods	5			
13. Cosmetic finish & safe edges	5			
Written Total	30		Overall Total	

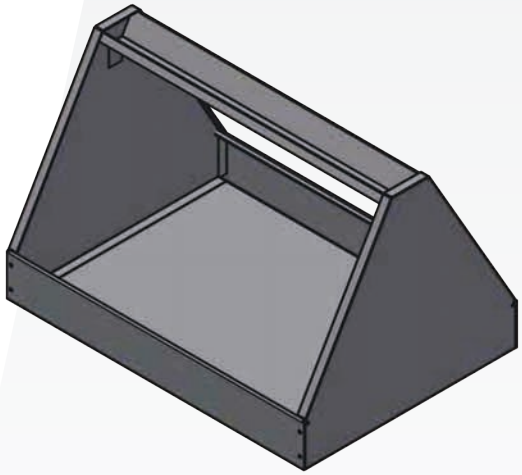
Marking Criteria	
Workpiece	70
Written Total	30
Total Marks	100

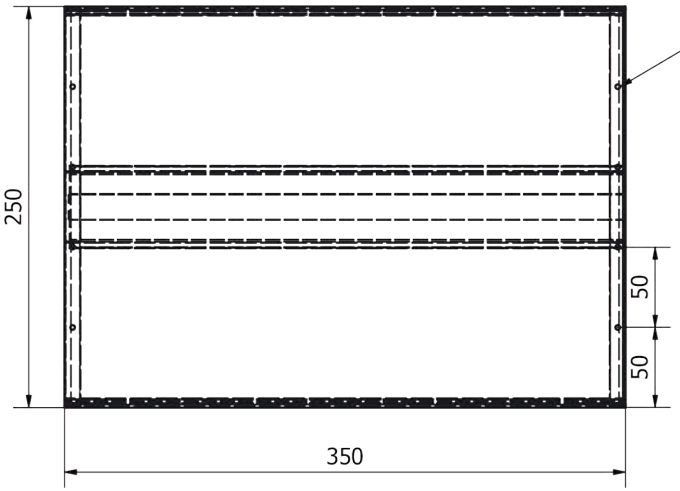
Position Open Class	
Head Judge Signature	

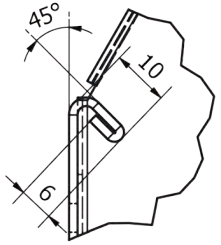
All marks are Subjective Judges Decision
Written Subjective Judges Decision

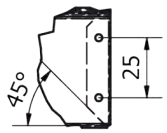


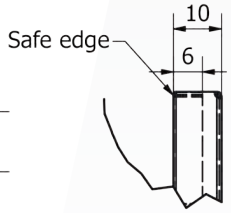


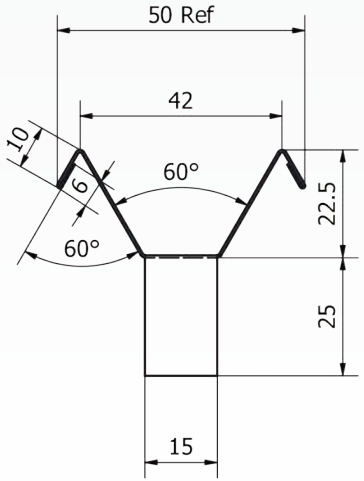












Component edge details

NOTES:
Project target time 7 hours including pattern developments
Material can be ANY 0.9-1mm thick LCS, Tin Plate or Galvanised
Assembly can be ANY method Pop Solid rivets or Spot welded
Dimensions are outside unless stated on individual drawings.
Tolerances are +/- 1mm unless otherwise stated.
All joint gaps to be less than 1mm
Surface finish to be as manufactured or lightly polished
Remove ALL SHARP EDGES.

PARTS LIST			
ITEM	QTY	DESCRIPTION	MATERIAL
1	1	Base Tray	As Notes
2	2	End Plates	As notes
3	1	Handle Tray	As Notes

		Title: Tool Caddy Project 2024	
	Drawn By: ISME	Dwg No: ISME L2 TC V1	
Scale: 1:3	Checked By:	Date: 02/01/2023	Sheet No: A 1 of 1
Dimensions in mm			

CATEGORY ONE

Tool Caddy / L2 TC V1

Marking & Assessment Schedule 2025 / 1 of 2

Date		
Name		
Company/Organisation		
Competitor No.		
Test Project	Tool Caddy	ISME L2 TC V1

Aspect ID	Criterion Description	Max Marks Available
A	Pattern Developments & Marking Out	9.00
B	Primary Dimensions	24.00
C	Secondary Dimensions	14.00
D	Forming and Joining	12.00
E	Appearance and Finish	9.00
F	Use of Materials	2.00
G	Written Account of Project Work	30.00
	Total Marks	100.00

Aspect ID	Aspect of Criterion – Description	Max Mark
A	**Pattern Developments & Marking Out**	
A1.1	Item 1 Base Tray including flanges and bend allowances	3.00
A1.2	Item 2 End Plates including flanges and bend	3.00
A1.3	Item 3 Handle Tray Including Bend allowances	3.00
		9.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Tutors
Marked out or Pattern			Marks
Marked out or Pattern			Used
Marked out or Pattern			In Final
Marked out or Pattern	Marks		Total

Aspect ID	Aspect of Criterion – Description	Max Mark
B	**Primary Dimensions**	MM
B1.1	Item 1 Base length 350mm	2.00
B1.2	Item 1 Base Width 250mm	2.00
B1.3	Item 1 Base Height 50mm	2.00
B1.4	Item 2 End Plate Width 248mm	2.00
B1.5	Item 2 End Plate Height 49mm	2.00
B1.6	Item 2 End Plate Height 184mm	2.00
B1.7	Item 2 End Plate Width 45mm	2.00
B1.8	Item 3 Handle Tray length 348mm	2.00
B1.9	Item 3 Handle Tray Width 42mm	2.00
B1.10	Item 3 Handle Tray Width 15mm	2.00
B1.11	Item 3 Handle Tray Height 22.5mm	2.00
B1.12	Item 3 Handle Tray height 25mm	2.00
		24.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
350mm +/- 1mm			
250mm +/- 1mm			
50mm +/- 1mm			
248mm +/- 1mm			
49mm +/- 1mm			
184mm +/- 1mm			
45mm +/- 1mm			
348 +/- 1mm			
42 +/- 1mm			
15 +/- 1mm			
22.5 +/- 1mm			
25 +/- 1mm			
	Marks		

Aspect ID	Aspect of Criterion – Description	Max Mark
C	**Secondary Dimensions**	MM/Degrees
C1.1	Item 1 Base Safe Edge Details 45 x 10 x 6	2.00
C1.2	Item 1 Base to End Plate Fixing Spacing 50 & 25	2.00
C1.3	Item 2 End Plate Safe Edge Details 10 x 6	2.00
C1.4	Item 1 Base to End Plate Fixing Spacing 12	2.00
C1.5	Item 3 Handle Tray Angles 60	2.00
C1.6	Item 3 Handle Tray Safe Edge Details 10 x 6	2.00
C1.7	Assembled Project Base Flettness	2.00
		14.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
45 Degrees x 10mm x			
50mm and 25mm +/- 1mm			
10mm x 6mm			
12mm +/- 1mm			
60 Degrees x 10mm x			
10mm x 6mm			
2mm +/- 1mm			
	Marks		

Aspect ID	Aspect of Criterion – Description	Max Mark
D	**Forming and Joining**	
D1.1	Base to End plate joints as per drawing	2.00
D1.2	Handle End plate joints as per drawing	2.00
D1.3	Item 1 Base Forming/folding continuous	2.00
D1.4	Item 2 End Plates Forming/folding continuous	2.00
D1.5	Item 3 Handle Tray Forming/folding continuous	2.00
D1.6	Safe Edge Froming and Folding continuous	2.00
		12.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
Visual inspection Yes/No			
Visual inspection Yes/No			
Yes/No			
Yes/No			
Yes/No			
Yes/No			
	Marks		

CATEGORY
ONE
Tool Caddy / L2 TC V1

Marking & Assessment *Schedule*
2025 / 2 of 2

Aspect ID	Aspect of Criterion – Description	Max Mark
E	**Appearance and Finish**	
E1.1	Project general appearance and finish	6.00
E1.2	All exposed edges deburred	3.00
		9.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
Free from dents			
Yes/No			
	Marks		

Aspect ID	Aspect of Criterion – Description	Max Mark
F	**Use of Materials**	
F1.1	Use of Materials	2.00
		2.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
No extra materials taken			
	Marks		

Aspect ID	Aspect of Criterion – Description	Max Mark
G	**Written Account of Project Work Including**	
G1.1	200 written words about yourself	5.00
	Planning the project	5.00
	Health and safety	5.00
	The tools used	5.00
	Assembly methods	5.00
	Final inspection	5.00
		30.00

Required Size or Specification	Result or Actual Value	Tutor Mark Awarded	Judges Mark
	Marks		

Competitor	

Competitor No,	

Marks *Summary*

Aspect ID	Criterion Description	Max Marks Available
A	Pattern Developments & Marking Out	9.00
B	Primary Dimensions	24.00
C	Secondary Dimensions	14.00
D	Forming and Joining	12.00
E	Appearance and Finish	9.00
F	Use of Materials	2.00
G	Written Account of Project Work	30.00
	Total Marks	100.00

	Total Mark Awarded	Judges Marks
Total		

I/We Certify that the work assessed and Marked is the Work of the named competitor

Tutor	
Signature	

Tutor	
Signature	

Tutor	
Signature	

Tutor	
Signature	

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ENTRY FORM 2025

Please complete and return pne form for each entrant.
Format for the day will be confirmed nearer to the time.

Name	
D.O.B	
Email Address	

Regarding Personal Details

Names and email addresses to be used by ISME –
will the tutor please tick the box and sign below approving.

☐

Categories Entered

☐ **Category 1 Tool Caddy Test Piece**
Apprentices to be Level 2 or early entry Level 3

☐ **Open Class Category**
Any age apprentice

Please Note:
For the opportunity of winning the ISME Trophy, you must enter Test Piece and complete written work

☐ I confirm the trainee in currently year level

Signed Training Manager

Training Establishment / Employer	
Contact Name at Training Establisment / Employer	
Address	

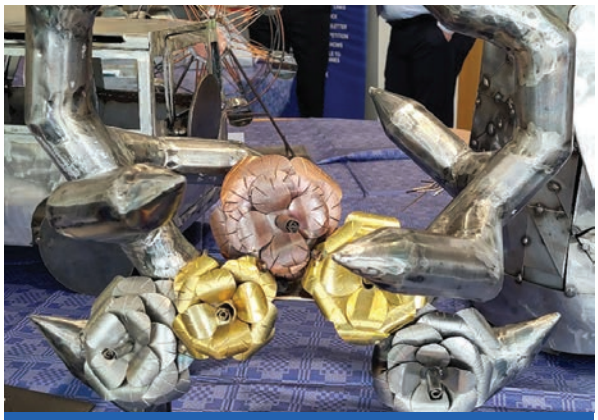
Post code	
Telephone	
Email	

Institute of SheetMetal Engineering
102 Richmond Drive, Perton
Wolverhampton WV6 7UQ
T: 07891 499146 / **E:** ismesec@gmail.com

Please return this entry form ASAP to: Institute of Sheet Metal Engineering at the address above, or scan and email to: **ismesec@gmail.com**

ISME SKILLS OVERALL WINNERS TROPHY

Kept for 12 months



Open Class Winning Test Piece

Pictures from 2024 Competition Amada UK Ltd

Courtney Macmillan, Babcock, Receives ISME Trophy from ISME Chairman Dr. Mohamed Mohamed

Warwick College ISME Skills 2024

Judging Team ISME Skills 2024

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