



معهد التكنولوجيا التطبيقية
INSTITUTE OF APPLIED TECHNOLOGY

Mechanical Workshop

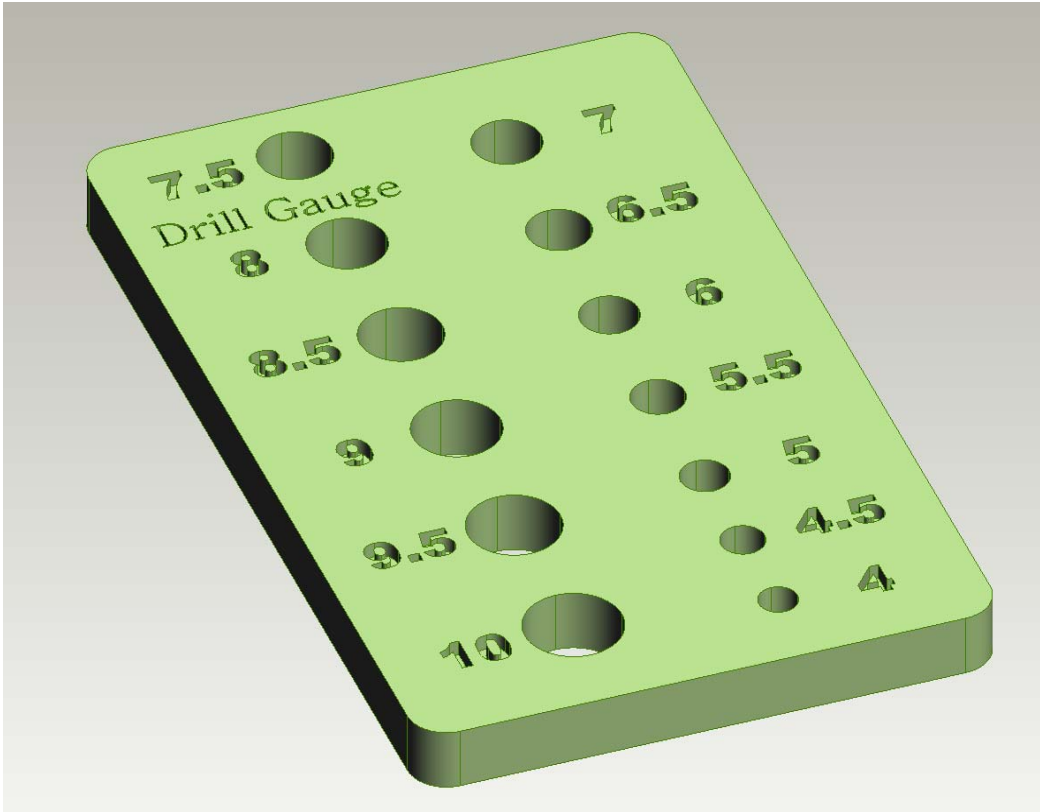
The Drill Gauge Project

PREPARED BY

IAT Curriculum Unit

January 2010

© Institute of Applied Technology, 2010



Objective

To manufacture a drill gauge as per the given drawing and specification.

Description

The drill gauge is used to allow a quick accurate check on specific drill sizes. This enables drill sizes to be checked when the marking on the drill is unclear.

The product needs to:

- be able to measure a range of drill sizes from 4mm diameter up to 10mm diameter.
- have labeling to indicate the hole sizes
- be manufactured from mild steel
- have a high quality finish
- be manufactured according to the

dimensions indicated on the working drawing as shown in Fig.1.1.

Specification

The gauge should:

- be able to measure a range of drill sizes from 4mm diameter up to 10mm diameter.
- have labeling to indicate the hole sizes
- be manufactured from mild steel
- have a high quality finish
- be manufactured according to the dimensions indicated on the working drawing shown in Fig.1.1.

Equipment and materials

Appropriate workshop facilities including:

Measuring tools

Marking out tools

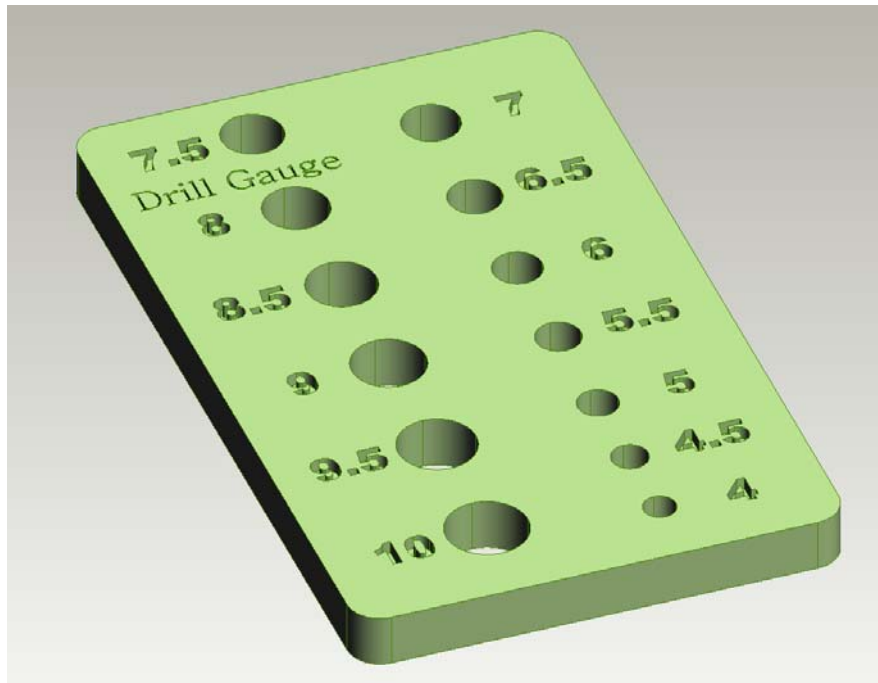
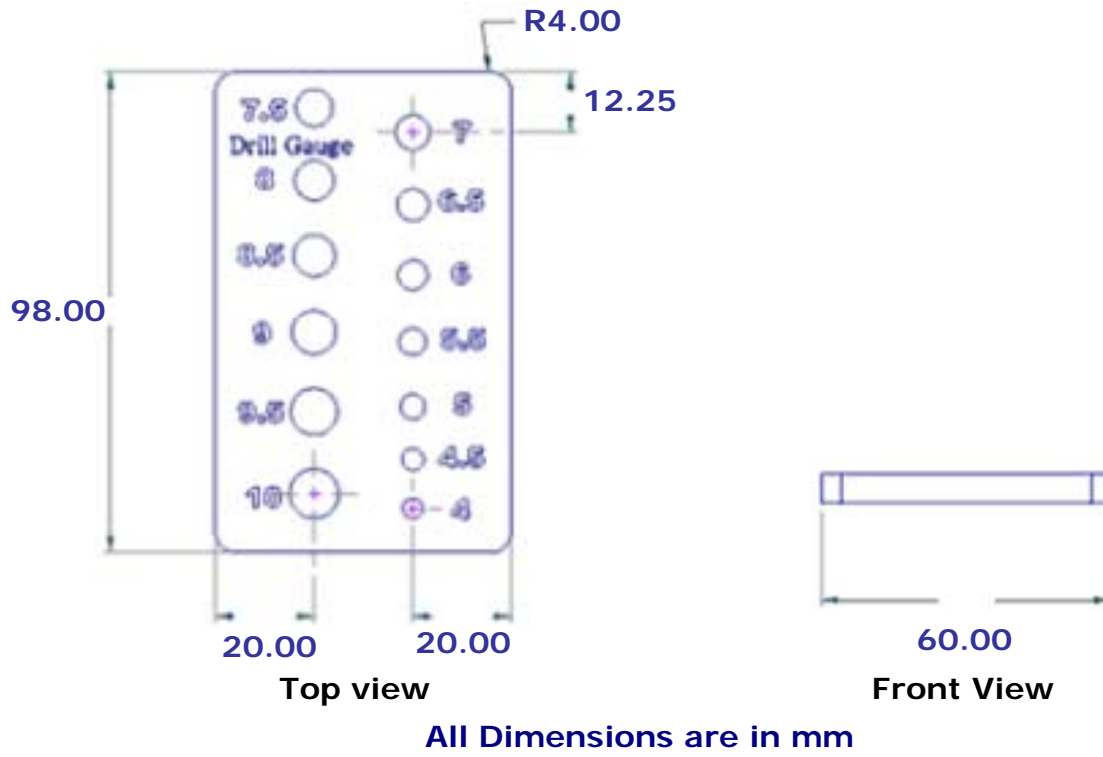
Hacksaws

Files

Drilling machine

Materials:

130mmX80mmX5mm mild steel plate



3D-View

Fig 1.1: Shows the drill gauge working drawing

The project tasks are as follows:

Task 1	Understanding the project specification, drawing and the steps required to manufacture it.
Task 2	Measuring
Task 3	Marking out
Task 4	Sawing
Task 5	Filing
Task 6	Drilling

Note: The project tasks should be completed during the course, each task should follow the corresponding module as per the pacing.

Rubrics and grading criteria:

Section	Skill	Marks
A	Measuring	10
B	Marking out	15
C	Sawing	10
D	Filing	15
E	Drilling	15
F	Finishing	15
G	Conformity to drawing	20
Total		100