

# Chapter 2: Drawing Board, Instruments & its use

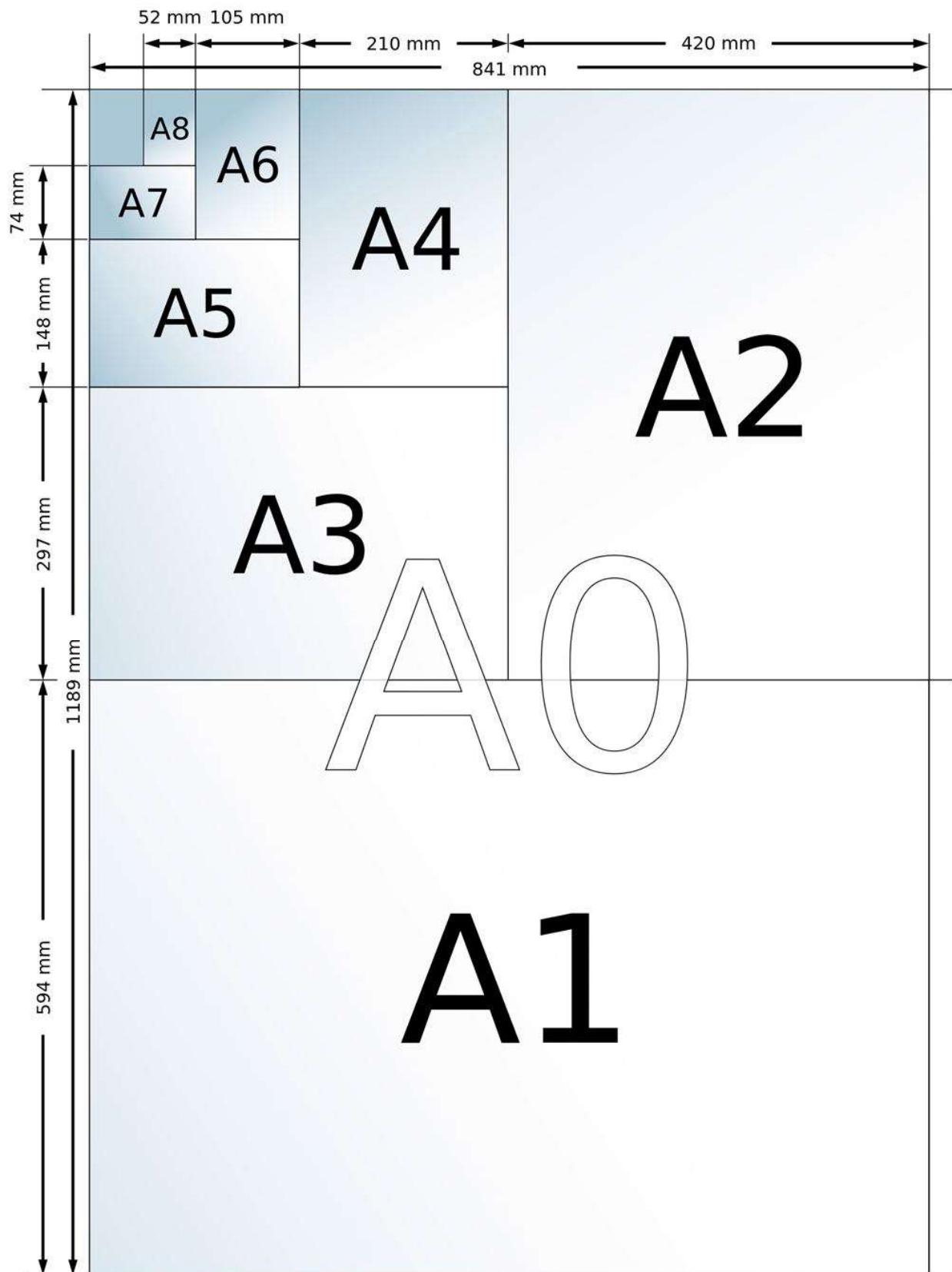
## **Drawing Instruments**

The most common instruments used for engineering drawing are:

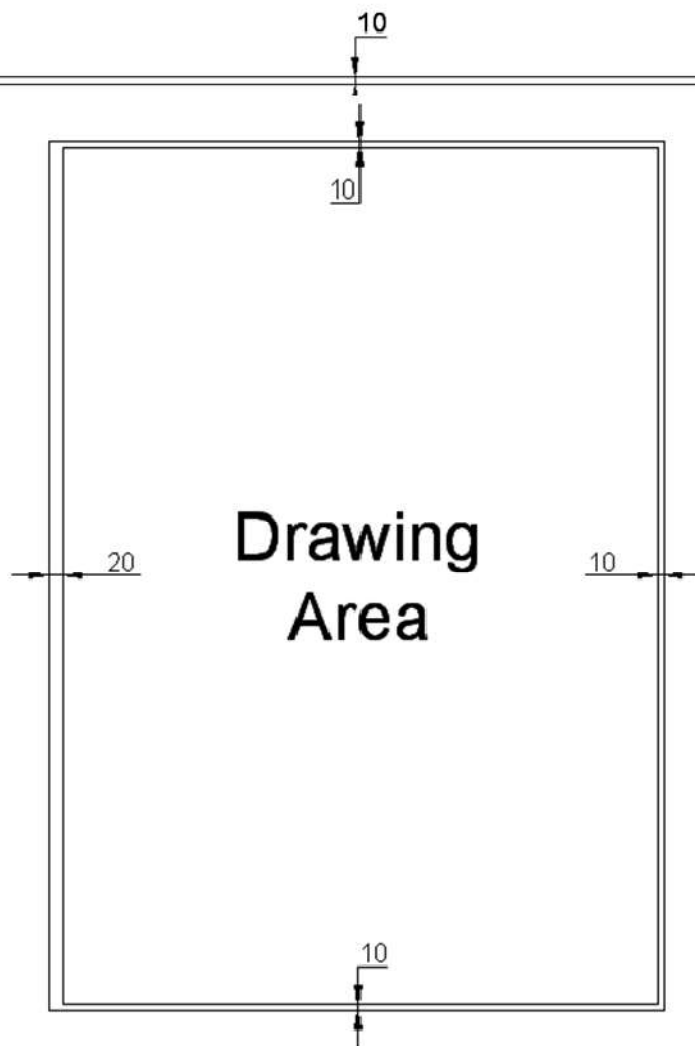
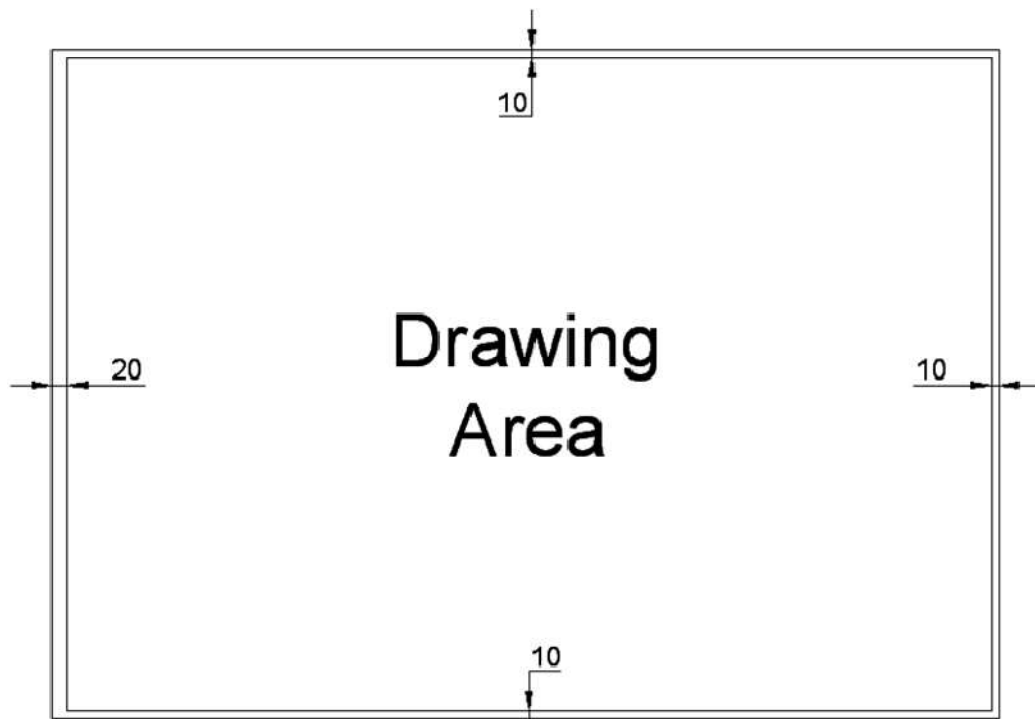
1. Drawing Board 2. Rubber/Eraser 3. Instrument box 4. Scales 5. Drawing paper 6. T- square 7. Protractor 8. Pins and clips 9. Pencil 10. Set-square 11. Compass 12. Adhesive tapes 13. French curves etc

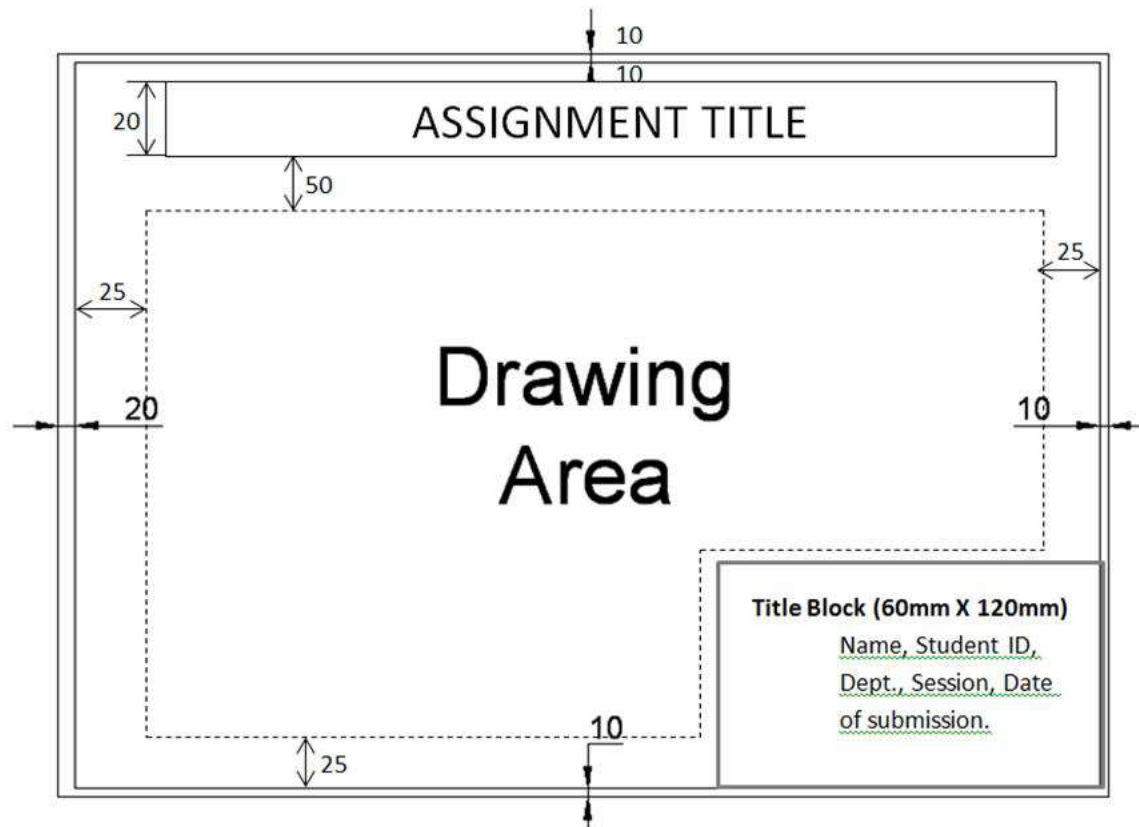
## **Drawing Board**

- ☐ It is a board or platform rectangular in shape.
- ☐ Size of drawing board need to be larger than that of drawing paper.
- ☐ It is made of wood.
- ☐ Top surface should be smooth.



**Drawing Paper Dimensions (ISO Standard)**





### Pencil:

Pencils are used to draw different lines, shapes, symbols and to write texts in engineering drawing. Based on the hardness of lead pencils are classified in three major grades as hard, medium and soft.

### Grade Items arranged ordering harder to softer

Hard 9H> 8H> 7H>6H>5H>4H

Medium 3H>2H>H>F>HB>B

Soft 2B>3B>4B>5B>6B>7B

### Pencils of Different Grades

Selection of proper grade pencil or lead is important for quality drawing. One has to be careful in selecting a lead because very hard lead might penetrate the drawing, on the other hand, soft lead may smear. Quality and type of drawing paper is an important factor in selecting lead. One other importance consideration is the importance of line to be drawn. Inferior lines (like border lines, guide lines, construction lines and any other auxiliary lines needed to be erased later) are drawn using harder pencil. Comparatively softer grade pencil is used for drawing superior items (like object line, texts, symbols etc.).

### Pencil Usage Guideline for Different Line Types

Border Lines 3H, 2H Centerlines 2H,H Leaders 2H, H Construction Lines 3H, 2H Phantom Lines 2H,H Hidden Lines 2H, H Guide Lines 3H, 2H Long Break Lines 2H, H Cross Hatching Lines 2H,H Lettering H, F, HB Visible Lines H, F, HB Extension Lines 2H, H Dimension Lines 2H, H Cutting Plane Lines H, F, HB Short Break lines H, F, HB

For convenience we will use 2H and HB pencils for our assignments and class drawings.