

Topic: Lettering and Numbering in Technical Drawing

Introduction

In **technical drawing**, communication is done through **lines, symbols, dimensions, letters, and numbers**.

Lettering and numbering are essential for:

- Titles
- Annotations
- Measurements
- Instructions

Unlike ordinary handwriting, **technical lettering must be uniform, clear, and legible** because technical drawings are used by **engineers, architects, builders, and manufacturers** worldwide.

1. What is Lettering?

Definition:

Lettering is the **process of writing letters (A–Z)** in a drawing, using a **standardized style**, so that:

- The letters are **clear**
 - The size is **uniform**
 - The style is **legible to everyone**
 - The writing is **neat and professional**
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2. Types of Lettering

a) Upper Case Lettering (Capital Letters)

- All letters are written in **capital form**:
A, B, C, D, ... Z
- **Why Upper Case?**
 - **Easier to read**

- **No confusion between letters**
 - **Internationally accepted in engineering and architecture**
-

Example of Upper Case Lettering:

CSS

CopyEdit

FRONT ELEVATION

SECTION A-A

PLAN VIEW

b) Lower Case Lettering (Small Letters)

- Written in **small or lower case**:
a, b, c, d, ... z
 - **Use of Lower Case**:
 - Mostly used in **notes or descriptions**, not in titles or labels.
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Example of Lower Case Lettering:

vbnet

CopyEdit

This drawing is not to scale.

Refer to note on page 3.

c) Combination of Upper and Lower Case

Sometimes, both are combined in **general notes or specifications**.

Example:

arduino

CopyEdit

Engine Cover

Welding Process

3. Guidelines for Lettering

Feature	Explanation
Clarity	Letters must be clear and simple
Uniform Size	Letters must be equal in height and width
Vertical or Upright	Letters should stand straight at 90°
Spacing	Leave equal spaces between letters and words
Simplicity	Use plain, simple block letters
No Cursive or Fancy Writing This is technical work , not artistic decoration	

Use of Guidelines

Before lettering, draw **light horizontal guide lines** with a **2H pencil**:

- **Top Line:** Controls the height of letters
- **Base Line:** The bottom of all letters rests on this line
- **Middle Line (for lowercase):** For letters like a, e, o

4. Sizes of Letters

Size (mm)	Use
2mm to 3mm	For dimensions, notes, and labels
5mm to 6mm	For sub-titles or section headings
8mm to 10mm	For main titles

5. Styles of Lettering

a) Single Stroke Gothic

- **Uniform thickness**
- **Straight, simple, bold lines**
- Used in **all professional technical drawings**

b) Double Stroke Gothic (Bold Gothic)

- Similar to single stroke but **thicker**
- Rarely used except for **important headings**

6. Numbering (Writing 0–9)

Numbers in technical drawing must also be:

- **Uniform in size**
- **Neat and clear**
- **Easily readable**

How to Write 0–9 Correctly

Number How to Write It

- | | |
|----------|--|
| 0 | Oval-shaped; avoid making it too circular |
| 1 | Simple vertical line; base may have a small serif (optional) |
| 2 | Top curve small, bottom curve larger, sharp corner |
| 3 | Both upper and lower curves are smooth |
| 4 | Open top; vertical and diagonal strokes meet at right angles |
| 5 | Straight top, curved bottom |

Number How to Write It

- | | |
|---|---|
| 6 | Loop at the bottom, open curve at the top |
| 7 | Horizontal stroke at top, diagonal downward |
| 8 | Two equal loops, stacked |
| 9 | Circle at the top, straight line downward |
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7. Importance of Good Lettering and Numbering

Reason	Explanation
Readability	Prevents misinterpretation of dimensions or notes
Professionalism	Makes the drawing neat and acceptable in engineering
Uniformity	Allows others to understand the drawing easily
International Standardization	Follows ISO, BS, and ASME drawing standards

8. Tools Needed for Lettering and Numbering

Tool	Use
Pencils (2H, H, HB)	For writing clearly
T-square and Set Square	For drawing guidelines
Lettering Guide (optional)	For beginners to maintain uniformity
Eraser	For corrections
French Curves (optional)	For smooth curved letters

9. Summary of Key Points

Concept	Details
Upper Case	Used for titles and labels
Lower Case	Used in notes
Numbers 0–9	Must be clear and uniform
Lettering Style	Single Stroke Gothic is preferred
Guidelines	Draw light lines before lettering