Marking Out and Measuring

- Squares
- Mitre Square
- Engineering Square
- Marking Lines/Points
- Centre Punch
- Mortise Gauge
- Gauges
- Scriber
- Marking Gauge
- Templates

Measuring

- Measuring Tape
- Vernier Gauge
- Analogue
- Digital
- Rules
- Micrometer
- Wooden
- Steel
MARKING OUT AND MEASURING FACTSHEET

Measuring
**MEASURING FACTSHEET**

**Rules**

<table>
<thead>
<tr>
<th>Uses</th>
<th>Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• For measuring up to 300mm in length</td>
<td>• Rigid form which means it will not bend and flex</td>
</tr>
</tbody>
</table>

**Disadvantages**

• Ends can get worn so the measurements are not accurate
### Measuring Tape

#### Uses
- For taking measurements up to 5 metres

#### Advantages
- Longer, so more versatile

#### Disadvantages
- Can become twisted and break
- Ends can break off making them useless
# Gauges

## Uses
- Making lines from a datum point/line
- Making locations for mortise grooves
- Creating cut lines

## Advantages
- Greater accuracy
- Easier to start a cut (Cutting Gauge only)
- Can be used to make the same dimensions across different locations

## Disadvantages
- Points/blades become blunt over time
- Some parts may become lost making them useless
- Datum lines have to be accurate
Templates

Properties
- Can be made from any material

Uses
- Used for marking out multiple shapes/designs ensuring they are all identical to each other.

Advantages
- All designs/shapes are identical
- Speeds up marking out times
- Designs/shape templates can be reused at a later date

Disadvantages
- Can become worn and inaccurate over time
# Micrometre

<table>
<thead>
<tr>
<th>Uses</th>
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</tr>
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<tbody>
<tr>
<td>- Measuring material thicknesses to a high degree of accuracy</td>
<td>- Highly accurate, measuring to 0.01mm</td>
</tr>
<tr>
<td>- Internal Micrometre can be used to measure internal dimensions e.g. hole diameters</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Can be difficult to read if inexperienced</td>
</tr>
<tr>
<td>- If dropped can be broken easily</td>
</tr>
<tr>
<td>- Expensive to buy</td>
</tr>
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<td>- Highly accurate, measuring to 0.01mm</td>
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</table>
# Vernier Calliper

## Uses
- Measuring material thicknesses to a high degree of accuracy
- Used to measure depths
- Used to measure internal diameters

## Advantages
- Highly accurate, measuring to 0.01mm
- Digital versions are easier to read compared to micrometers
- More versatile than a micrometer

## Disadvantages
- If dropped can be broken easily
- Expensive to buy
- Highly accurate, measuring to 0.01mm
MATERIALS FACTSHEET

Marking Out
**Scriber**

**Uses**
- Marking lines on materials like metal and plastic which will later be used for cutting, bending or scoring.

**Advantages**
- Greater accuracy
- Lines are easier to see especially when used with engineering blue.

**Disadvantages**
- Point become blunt over time
- Lines can be difficult to see on certain metals/plastics
# Centre Punch

## Uses
- Marking points on materials like metal and plastic which will later be used for drilling

## Advantages
- Greater accuracy
- Drill bit less likely to slip or move around when starting a hole

## Disadvantages
- Point become blunt over time
- Punch marks can be difficult to see on certain plastics
- Possible chance the head will mushroom with continuous sharpening