This Calculator provides a common benchmark in the classification of the potential consequences of a dropped object.

One of a number of similar tools, the DROPS Calculator is endorsed by the DROPS Workgroup and recognised by HSE Organisations. While other ‘calculators’ exist, they all follow the same principle – plotting the mass of a dropped object against the distance it falls to determine its possible consequences.

Considerations
• With light objects (<0.1 kg) a key influencing factor is the effect of an object punching the skin and damaging tissue/organic functions. The calculator assumes a blunt object so is not compatible with broken glass, metal shards etc.
• The wearing of standard PPE, eg hard hat, safety boots and eye protection, is assumed in the calculator.
• Do not subtract the height of an individual, measure fall distance to solid deck/ground level.
• DROPS Calculator and other similar tools are guides only providing cursory indication of possible outcome – they are not an accurate prediction.
• In reality, even a small object falling from height can be lethal.

Mass x Distance x Gravitational Acceleration = Fall Energy

Classification Dropped Objects
Potential Consequences
1ft - 300ft / 0lb to 3lb

<table>
<thead>
<tr>
<th>Dropped Height (feet)</th>
<th>Mass (lb) (oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>3</td>
</tr>
<tr>
<td>240</td>
<td>2</td>
</tr>
<tr>
<td>180</td>
<td>1.5</td>
</tr>
<tr>
<td>120</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>0.5</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

Fatality
LTI
Lost Time Injury
(Major Injury DAFWC)

MTC
Medical Treatment Case
(Minor Injury)

First Aid
(Slight Injury)
Classification Dropped Objects
Potential Consequences
1ft - 300ft / 0lb to 22lb

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Fatality
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