Balances: general informations
**Good practices of weighing balances**

- Balance settings: range, minimum weight, precision
- Environmental factors: table of weighing, airflow, temperature, hygrometry, electrostaticity
  > minimize their influence
- Instructions for use and check in application
- Switch on the balance if sleep mode (no preheating)
- Check the level (bubble)

**Extract of the instruction « CONS_Utilisation de la balance H160_02 »**

16 décembre 2014

UMR_S 1066
Good practices of weighing balances

- Make sure of the cleanliness of the tray > use brush
- Make sure that the internal calibration was well made (ENR form)
- Make sure that the sample is at ambient temperature
- Centring the weighing sample
- Close doors
- Tare > readability (0.1-0.01mg), do not tare container to minimize the error in weighing < 10mg
- Perform weighing
- Wait for a few seconds the stabilization
- Print or write your result
- Remove your container then put the balance to zero
- Clean the scale and bench
# Balances Technical Informations (reserve laboratory 4282)

<table>
<thead>
<tr>
<th>Scales models</th>
<th>Range</th>
<th>Fine range</th>
<th>Readability</th>
<th>Minimum weight</th>
<th>EMT</th>
</tr>
</thead>
<tbody>
<tr>
<td>XP105DR</td>
<td>120g</td>
<td>31g</td>
<td>&lt;31g: 0.01mg - &gt;31g: 0.1mg</td>
<td>1mg</td>
<td>weight 1mg =&gt; +/-0.03mg weight 100g =&gt; +/-0.6mg</td>
</tr>
<tr>
<td>AG204DR</td>
<td>210g</td>
<td>81g</td>
<td>&lt;81g: 0.1mg - &gt;81g: 1mg</td>
<td>10mg</td>
<td>weight 10mg =&gt; +/-0.2mg weight 100g =&gt; +/-1mg</td>
</tr>
<tr>
<td>H160</td>
<td>161g</td>
<td>-</td>
<td>1mg all over the range</td>
<td>1g</td>
<td>weight 1g =&gt; +/-5mg weight 100g =&gt; +/-10mg</td>
</tr>
</tbody>
</table>
A few rules to follow when cleaning a balance

- During “recurrent tasks" and after weighing
- Place a paper damped with water and another paper with 70% ethanol on the various elements of the balance, if necessary let dry before weighing

⚠️ Never spill liquid on the tray of a balance

H160 example:

![Diagram of balance components]

1- Anneau de protection
2- Support de plateau (2a et 2b)
3- Plateau de balance

Extract of the instruction « CONS_Utilisation de la balance H160_02 »
Practical cases

Unstable weighing:

- increase (hygroscopic product > fast reading)
- decrease (product too hot or volatile > freeze drying or desiccation)
- oscillation (variation of the surrounding environment: vibration, temperature)