Different standards used at our laboratory - beginning more than 30 years ago

<table>
<thead>
<tr>
<th>Standard</th>
<th>Test time</th>
<th>Disturbance</th>
<th>Tracer substance</th>
<th>Total amount of tracer substance</th>
<th>Air intake with diffuser plate</th>
<th>Dimensions of pan/spreader</th>
<th>Temperature inlet air</th>
<th>Height above hob</th>
<th>Test room volume</th>
<th>Temperature test room</th>
<th>Temperature inlet air</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedish Standard SS 433 05 01</td>
<td>10 min</td>
<td>Yes</td>
<td>N₂O</td>
<td>510 liter</td>
<td>Close to the ceiling</td>
<td>Ø = 200 mm H = 20 mm</td>
<td>200 ± 5 °C</td>
<td>≥ 500 mm **</td>
<td>23 ± 1 m³</td>
<td>20 ± 5 °C</td>
<td>20 ± 2 °C</td>
</tr>
<tr>
<td>Hybrid method (mix of SS 433 0501 and IEC 61591)</td>
<td>10 min</td>
<td>Yes</td>
<td>MEK</td>
<td>100 g</td>
<td>Close to the ceiling</td>
<td>Ø = 200 mm H = 25 mm</td>
<td>170 ± 10 °C</td>
<td>≥ 500 mm **</td>
<td>23 ± 1 m³</td>
<td>20 ± 5 °C</td>
<td>20 ± 2 °C</td>
</tr>
<tr>
<td>IEC 61591-2-19</td>
<td>30 min</td>
<td>No</td>
<td>MEK</td>
<td>312 g</td>
<td>Close to the floor</td>
<td>Ø = 200 ± 20 mm H = 125 mm</td>
<td>170 ± 10 °C</td>
<td>600 mm</td>
<td>22 ± 2 m³</td>
<td>23 ± 2 °C</td>
<td>No requirements</td>
</tr>
<tr>
<td>EN 13141-3:2017</td>
<td>10 min</td>
<td>Yes</td>
<td>MEK</td>
<td>100 g</td>
<td>Close to the floor</td>
<td>Ø = 200 ± 20 mm H = 45 ± 2 mm</td>
<td>170 ± 5 °C</td>
<td>≥ 600 mm</td>
<td>22 ± 2 m³</td>
<td>No requirements</td>
<td>No requirements</td>
</tr>
</tbody>
</table>

*) Distance to the front lower edge of the test object, transparent hood not included (or other height specified by the manufacturer)
**) Before 2017 EN 13141-3 used the same testing procedure for odour reduction as in IEC 61591
***) Before 2019 the requirement was 20 ± 5 °C
Swedish Standard SS 433 05 01

- Published in 1981
- Used for testing of cooker hoods with or without a built in fan
- Disturbance in front of hob
- Only for extract air cooker hoods
- Gives reasonable odour extraction

For recirculating cooker hoods a hybrid metod has been used where N₂O had been exchanged with MEK as in EN 13141-3:2017

IEC 61591:2019

- First published in 1997
- Only used for testing of cooker hoods with built in or dedicated roof fan
- No disturbance in front of hob
- Both for extract and recirculating air cooker hoods
- Gives unrealistically high odour reduction

Based on a German method for mainly testing the performance of carbon filters in range hoods with recirculating air.
EN 13141-3:2017

- Before 2017 the same test method for odour reduction as in IEC 61591 was used
- Only used for testing of cooker hoods without built in or dedicated roof fan
- Disturbance in front of hob
- Only for extract air cooker hoods
- Gives reasonable odour extraction

Very similar to the "Hybrid method" used by RISE

Conclusions

- Cooker hood should be tested in the same way regardless of
  - built in fan or not
  - extract air or recirculating air
- The test procedure for odour reduction used in EN 13141-3:2017 should be used for all types of range