

Onose-8 is a stationary dynamic dilution olfactometer. Designed for laboratories and research centers desiring to perform odour analyses, this state-of-the-art olfactometer is used for quantification of odours with the use of up to 16 panelists. The olfactometer operating system, Olfaware, is easy to use and powerful. Onose-8 can perform a wide variety of tasks linked to olfactometric analyses, quickly and precisely.

The olfactometer and the operating system can be modified to adapt to the client's needs.

The Onose-8 dynamic dilution olfactometer is the result of more than 15 years of research and development by the engineers and scientists from Consumaj consulting firm. Versatile and powerful, Onose-8 has been designed to offer the operator the possibility to control easily and intuitively every feature of the olfactometer.



## APPLICATIONS

The Onose-8 olfactometer is used to perform olfactometric analyses according to the following standards:

- ASTM 679
- EN 13725
- VDI 3881 and 3882

The olfactometric analysis techniques that can be performed by Onose-8 are the following:

- Dilution to threshold in order to determine the odour concentration of a sample
- Evaluation of the offensiveness of an odour by comparison with n-butanol
- Evaluation of the hedonic tone according to different comparison scales
- Evaluation of the panelists' olfactory detection threshold with n-butanol

## COMPONENTS

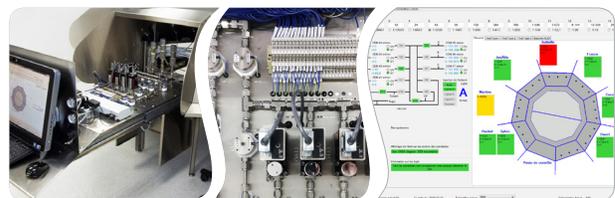
The Onose-8 olfactometer is composed of accurate mass flow controllers with a reading error of <math><0,2\% \text{ FS}</math> (0% to 20% of the mass flow scale) and <math><1\%</math> reading (20% to 100% of the mass flow scale). All the components of the olfactometer that are in contact with fresh air or odours are made exclusively of Teflon<sup>®</sup>, stainless steel or glass. These components allow a fast purge and a minimum risk of cross contamination during olfactometric analyses.

The components of Onose-8 offer, but not limited to, the following characteristics:

- Fully automatic dilution system
- Two levels of dilution, from  $2^4$  to  $2^{17}$  standard and from  $2^4$  to  $2^{21}$  optional
- Easy modification of the dilution step factor
- Simultaneous analyses by up to 16 panelists
- Touch screen tablet used by panelists as a voting platform
- Operating station equipped with a 24" wide touch screen

The Onose-8 is designed as a nonagon (9 sided) shape structure. This furniture-like structure includes an easy-access drawer storing all important components of the olfactometer. This important feature allows an easy and quick maintenance of the olfactometer and a problem-free verification and calibration of the mass flow controllers.

The Olfaware operating system offers the possibility to perform verification and calibration of the mass flow controllers directly by the operator. No assistance by a qualified technician from Consumaj is required to perform this type of maintenance. This feature unique to Onose-8 offers significant savings by reducing the maintenance cost of the equipment.



## OLFAWARE

The Olfaware software is the operating system and interface to operate the olfactometer. Developed specifically for Onose-8, the Olfaware software allows a total control over all steps of an olfactometry analysis. Olfaware software offers the following characteristics:

- Allows data input regarding clients information, samples descriptions, panelists and analysis information, etc.
- Automatically produces a database including all relevant information regarding the analysis in progress
- Automatic blank sample analysis, automatic purging protocol, automatic sampling bag air filling, etc.
- Real time verification of panelists' results

Not only is the software polyvalent, but it can also be entirely modeled to fit the client's specific needs. During an olfactometric analysis, the votes of the panelists are recorded through touch screen electronic tablets. Intuitive and easy to use, these tablets are connected to the Olfaware operating system with a wireless network in order to present to the operator the panelists' voting answers in real time.

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## CONSUMAJ

Growing strong for more than 20 years, Consumaj is a consulting firm and manufacturer of specialized equipment composed of engineers and scientists working in the fields of civil engineering, agriculture, environment and olfactometry. So far, Consumaj olfactometry division has developed two different models of dynamic olfactometer and also offers a wide variety of specialized products for odour sampling, dilution and analysis. The division is specialized in research and development and also offers services in odour sampling, characterization and atmospheric odour dispersion modeling studies. The firm delivers services in the industrial, commercial, agro-food and institutional sectors. Consumaj has successfully completed hundreds of different projects regarding olfactometry.

Other than the Onose-8 stationary dynamic olfactometer, Consumaj is also a manufacturer and retailer of a wide variety of specialized tools and equipment for odour sampling and analysis:

- Predilution odour sampling probes
- Flux chambers for the sampling of surface odour source
- Wind tunnels for field spreading simulations
- Vacuum odour sampling vessels
- Teflon® or Nalophan® odour sampling bags

## Technical Information

Manufacturer	Consumaj inc.
Model	Onose-8
Operation interface software	Olfaware
Type of analysis	<ul style="list-style-type: none"> <li>• Triangular forced choice</li> <li>• Panelists validation</li> <li>• Yes / No</li> <li>• Hedonic tone</li> <li>• Other according to client's requirements</li> </ul>
Standards	<ul style="list-style-type: none"> <li>• EN 13725</li> <li>• ASTM 679</li> <li>• VDI 3881 &amp; 3882</li> </ul>
Number of sniffing stations	8
Sniffing tubes per station	Up to 4
Number of assessor	Up to 16
Dilution range	<ul style="list-style-type: none"> <li>• 2<sup>4</sup> to 2<sup>17</sup> standard</li> <li>• 2<sup>4</sup> to 2<sup>21</sup> optional</li> </ul>
Dilution step factor	Variable
Analysis average time according to EN13725	<ul style="list-style-type: none"> <li>• 6 minutes 8 assessors</li> <li>• 10 minutes 16 assessors</li> </ul>
Time required for stabilisation between two presentations	< 10 seconds
Presentation flow rate	20 l/min to 35 l/min
Air speed at exit of sniffing tubes	0.21 m/s to 0.37 m/s
Accuracy	<ul style="list-style-type: none"> <li>• Error ± 0.2% FS 0 à 20% of the mass flow controller scale</li> <li>• Error ± 1% reading 20 à 100% of the mass flow controller scale</li> </ul>
Repeatability of flow rates	± 0.2% of flow rate
Wetted materials	<ul style="list-style-type: none"> <li>• Teflon®</li> <li>• Glass</li> <li>• Stainless steel</li> </ul>
Power requirements	110-230 VAC 50/60 Hz, 10Amp
Dimensions	2.5 m width by 2.5 m length, 3.5 m length with drawer opened
Verification and calibration of mass flow controllers	Performed by the operator with the Olfaware interface

Visit our website for more information on the tools and equipment offered.

[www.consumaj.com](http://www.consumaj.com)