



Product catalogue

2025

olfasense ::::

Welcome



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Dear Madam, dear Sir,

Thank you very much for your interest in our products.

Olfasense is the world-leading supplier of odour laboratory technologies and odour measurement equipment, including olfactometers, sampling tools, software and calibration services and much more. With the development of our VOC emission test chambers and corrosive gas test chambers, we are continuing to pursue our goal of offering the most advanced technologies for precise material testing.

The specially designed, unique technology is used by more than 400 laboratories, research institutes, universities, and companies world wide. Reliable, high-quality measuring technology consists primarily of the robust measurement equipment, well-engineered software as well as customer service and support. At Olfasense, these elements interact in perfect harmony, making us your one-stop provider of odour measurement technology solutions.

You won't be surprised to learn that most scientific research papers and applied environmental olfactometry research of the past 30 years are based on data obtained using our odour measurement equipment.

Olfasense members were also key players in all other relevant odour working and standardisation groups since 1993, and we have pioneered ISO 17025 accreditation.

Our employees' expertise is key to our success in this field – and means we can develop the very best customised odour measurement and sampling equipment in the world. Don't miss the chance to benefit from this knowledge and expertise - Be part of it!

All our products come with a warranty of 24 months. Third party products (compressor, notebook, etc.) come with 12 months warranty.

We are at your service to set up your professional odour laboratory!

Best regards

A handwritten signature in black ink, appearing to read 'Marc Andresen', written over a light blue horizontal line.

Marc Andresen
Head of Sales – Olfasense GmbH

TO-Series labs around the world Since 1996



Germany	112	Belgium	8	Israel	3	Brazil	1
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What our clients say



The TO evolution olfactometer and the services offered by Olfasense for the maintenance and calibration of this equipment enable us to offer our customers a high quality service (accuracy, repeatability and speed of analysis) to the highest international standards. We particularly appreciated the possibility of shipping Olfasense our dilution unit for the annual accredited calibration. By planning this operation, it did not affect the productivity of the laboratory.

We have had the pleasure to obtain our accreditation according to ISO 17025 with our new equipment which has met all the expectations of the evaluators of the BELAC (design, calibration, data protection, stability, precision, reliability ...)."

- Loïc Raymond, Technical Manager for odours and gas chemistry, at Odometric



We hereby, would like to express our sincere gratitude to Olfasense GmbH for their contribution and overall provided assistance, continuous effort and technical guidance & expertise in the process of extending the scope of our EN 17025:2017 laboratory to odour concentration determination by Dynamic Olfactometry, according to EN 13725:2022 standard, with excellent results.

We were lucky to get our hands on superior quality products, receive extensive training programs and compete in proficiency testing while feeling a part of a big family.

The professionalism and supportive mentality of Olfasense GmbH made this quest an enjoyable and easy-going experience that will drive us through the future with confidence and passion for what is coming!

- Apostolos Angelis, Technical Supervisor, Environmental Monitoring Dpt., Head of Olfactometry Dpt. at ENVIROMETRICS S.A.



FORCE Technology has worked with olfactometry for 30 years, and for the last two years used a TO8 Olfactometer from Olfasense as our only olfactometer. We are very satisfied with the function of the TO8, which is easy to handle and have good report facilities. We have used Olfasense for service and calibration twice and appreciate the fast and reliable service. Our olfactometer was out of service for only six days. It was easy to arrange with Olfasense Calibration department. We have a good contact with Olfasense's technicians and get quick answers, when we have technical questions.

- Arne Oxbøl, Project engineer at FORCE Technology



AIMPLAS decided to purchase the Olfasense VOC emission test chamber EK1000 because of its professionalism, its proximity and, above all, the knowledge it demonstrated of the requirements of automotive standards. Something very important for us. During the installation of the equipment, Olfasense helped the AIMPLAS staff to understand everything that is necessary for the correct functioning of the chamber, demonstrating once again their professionalism. Without a doubt, it was a good choice.

- Nuria García Batista, PhD.; Chemical Laboratory - Identification at AIMPLAS



Involvement in working groups

Scope of accreditation

1995 - 2003 2012 - 2022	CEN/TC264/WG2 'Olfactometry,	EN13725 Air Quality – Determination of odour concentration by dynamic olfactometry
2002 - 2005	NVN 2818: 2005	Writing Dutch standard for hedonic tone measurements
2004 - 2011	VDI 3880	Olfactometry – Static sampling
since 2005	Werkgroep luchtkwaliteitsmodellen, WLM	Dutch working group on air dispersion modelling
since 2006	CEN/TC 264/WG 27	EN 16841-1 grid method which uses direct assessment of ambient air by panel members to characterize odour exposure in a defined assessment area EN 16841-2 plume method for determining the extent of the downwind odour plume of a source
2008 - 2011	ISO/TC 34/SC 12 Sensory analysis - NEN committee (NL)	Dutch standardisation committee on sensory analysis (general)
since 2008	mirror committee to ISO/TC 146/ SC 6/WG 14	Determination of odour emissions from building products using test chambers (ISO 16000-28 and ISO 16000-30)
since 2008	VDI 4302	Sensory testing of indoor air and determination of odour emissions from building products
2009 - 2013	VDI 3884	Olfactometry - Determination of odour concentration by dynamic olfactometry - Supplementary instructions for application of DIN EN 13725
2010 - 2013	VDI 3883	Effects and assessment of odours - Conflict management in air pollution abatement - Fundamentals and application to ambient odour
since 2010	VDI-WG 3885/1	Odour measurements of liquids
2011 - 2012 2015 - now	NTA 9065	Air quality - Odour measurements - Odour measurement and calculation
since 2012	NEN - odours (geurmetingen)	Dutch standardization committee for odour measurements (general)
since 2012	VDI 4221	Quality assurance - Requirements on interlaboratory tests in immission control - Requirements on providers of interlaboratory tests
since 2013	NVN 2818	Revision of Dutch standard for hedonic tone measurements
since 2014	VDI 3788 / 2	Environmental meteorology - Odour dispersion modelling - source term determination via backward modelling -
since 2014	VDI Committee - air quality	Committee to direct the air quality activities in the VDI
since 2016	CEN TC 264 WG41	Emissions and ambient air – Instrumental odour monitoring
since 2017	VDI 3783 Part 13	Revision // Environmental monitoring - Quality control concerning air quality forecasts - Plant related pollution control - Dispersion calculation according to TA Luft

Olfasense has always aimed to be an innovator, so it is fitting that we pioneered ISO 17025 accreditation – the main and most important standard for calibration and testing laboratories globally. We obtained our first (ISO 17025) accreditation certificate on 28 September 1993 for our Amsterdam laboratory.

We now run four accredited testing laboratories for olfactometry in accordance with the European Standard EN 13725. Our companies provide both accredited odour sampling and odour analyses services.

What's more, our manufacturing and testing process of Nalophan gas sample bags is accredited under ISO 17025.

In addition, Olfasense is accredited to carry out proficiency tests in the field of dynamic olfactometry (EN 13725) and odour characteristics of interior materials in motor vehicles (VDA 270) according to EN ISO/IEC 17043:2010.

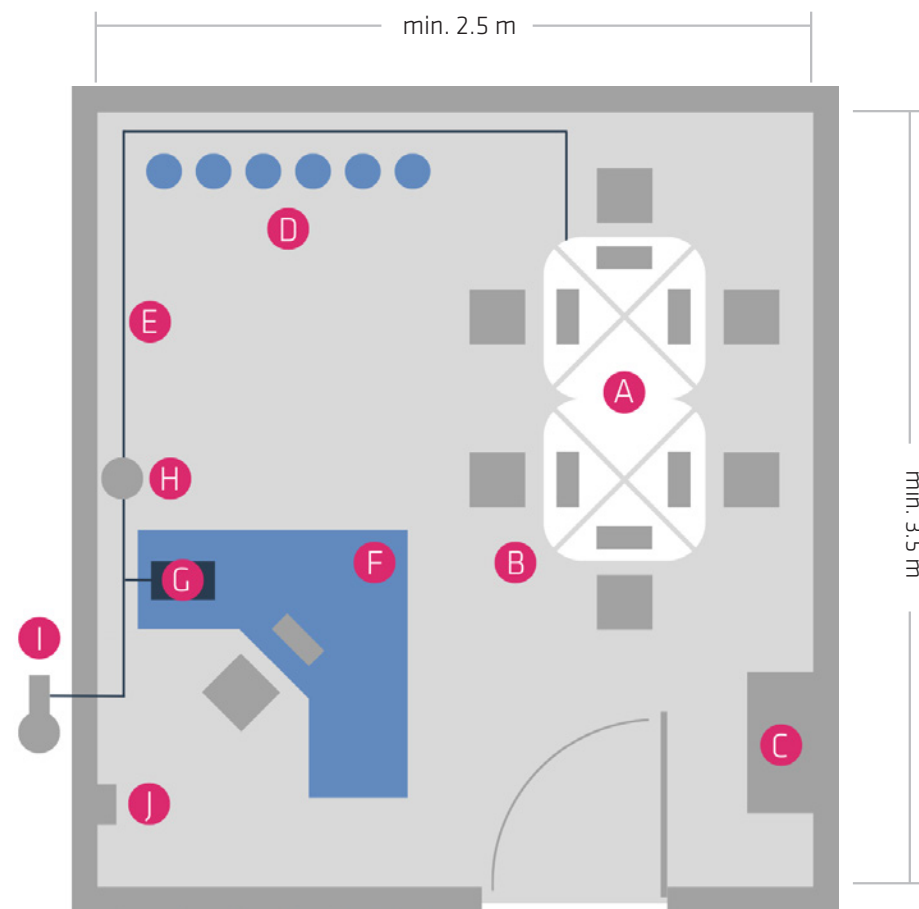
Germany	DAkKS accreditation no. D-PL-17433-01 and D-EP-17433-01-00.
Netherlands	RVA accreditation no. L403.
UK	UKAS accreditation no. 2430

Floor Plan



Exemplary Floor Plan of an Olfactometry Laboratory

- A Olfactometer
- B Assessor Desk
- C Air conditioning
- D Sample storage
- E Pressure line
- F Operator desk
- G Predilution system
- H Filter system
- I Compressor
- J Electrical connection



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FACTS:

- Available as 4-station or 6-station olfactometer
- Unique and specially designed dilution system
- Fully automatic, 100 % compliant to EN 13725:2022
- Analytical recovery of odorants from 85% up to 99% due to passivated stainless steel
- Easy to set up and simple to maintain; mobile and plug & play technology
- Fastest analysing time
- Integrated heating system and extensive flushing functions to prevent contamination
- Dedicated laboratory information management system (LIMS) for odour laboratories
- Ergonomically designed with optimized human-to-machine interface

SUPPORTED METHODS:

- Yes / No (EN 13725)
- Triangular Forced Choice (ASTM 679)
- Intensity (VDI 3882 Part1)
- Hedonic Tone (VDI 3882 Part2)
- Configurable intensity and hedonic tone scale
- Triangular odor bag method - GB/T 14675 - 93

SCOPE OF SUPPLY:

- Robust transport box
- 5 m compressed air connection PTFE pipeline
- Compressed air connection (8mm external)
- 20 x 10 l bags
- Proprietary calibration certificate in accordance with ISO 17025

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OLFACTOMETER TO EVOLUTION SERIES

T08 evolution olfactometer

An innovative LIMS-supported mobile olfactometer

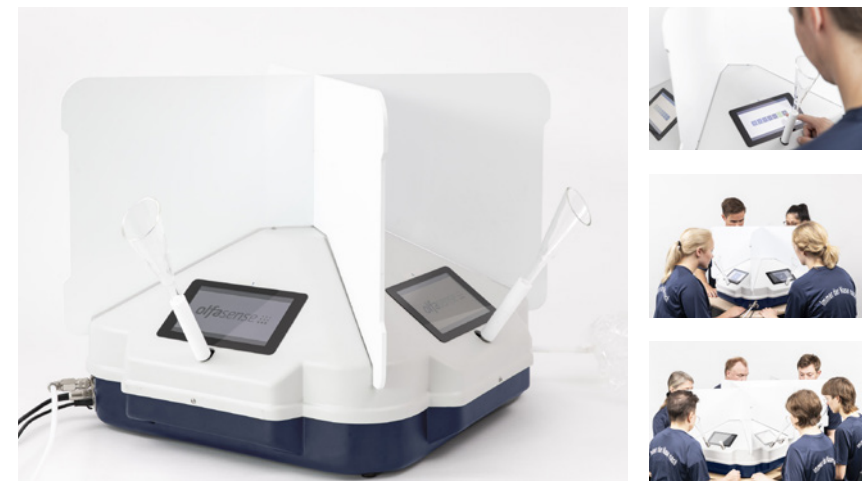
The T08 evolution olfactometer combines the latest scientific and technological advances with decades of practical experience – enabling us to set new benchmarks in the field of olfactometry.

The T08 evolution meets all requirements of EN 13725:2022 and is available as a 4-station or 6-station olfactometer.

The compact size and transportability of this model means you can use it equally as a

home-based laboratory, as well as a mobile on-site laboratory to keep sample storage time to a minimum, to increase flexibility and to offer quicker reporting.

The new WiNose laboratory information management system (LIMS) supports odour laboratories in fulfilling quality management procedures and to increase efficiency in day-to-day lab operation by managing equipment, samples, measurement results and panel data in a central location.



We are happy to receive your inquiries via sales@olfasense.com!



T08 evolution olfactometer

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	4 stations: 615 x 615 x 535 mm 6 stations: 1140 x 615 x 535 mm
Weight	4 stations: 30 kg 6 stations: 42 kg
Maximum calibration interval	12 months (according to EN 13725)
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

INSTALLATION VIDEO



Data privacy note: When clicking on the picture, you will open a Youtube video. To learn more about Youtube's data privacy policy, please visit https://www.youtube.com/t/privacy_at_youtube

Dilution principle	Gas jet pumps and calibrated precision orifices for sample dosage
Vent for surplus diluted odour	Outlet air via active carbon filter
Number of panel members working simultaneously	4 stations: 2 or 4 6 stations: 2, 4 or 6
Panel interface	Raspberry Pi 7", capacitive touch, 800 x 480 pixel
Analyses time for one sample (EN 13725:2022)	~ 4 min for 2 analysis runs* ~ 6 min for 3 analysis runs* (*under ideal conditions)
Required air supply	min. 140 l/min at 6 bar
Dilution range	2 ² (1:4) - 2 ¹⁶ (1:65,536) - Y/N 2 ² (1:4) - 2 ¹⁶ (1:65,536) - T-F-C
Interval steps	28 dilution steps - Factor √2 (1.4) usable also in Factor 2 interval
Dilution accuracy	< 5%
Response / setting time	< 0.1 sec
Analytical recovery of odorants	85% up to 99% (EN 13725:2022 requires > 70%)
Required sample volume	> 500 OU/m ³ - 1l (Y/N)* ~ 64 OU/m ³ - 3l (Y/N)* > 16 OU/m ³ - 10l (Y/N)* (*estimation with default settings)

FACTS:

- Available as 4-station or 6-station olfactometer
- Unique and specially designed dilution system
- Fully automatic, 100 % compliant to EN 13725:2022
- Analytical recovery of odorants from 85% up to 99% due to passivated stainless steel
- Easy to set up and simple to maintain, mobile and plug & play technology
- Fastest analysing time
- Integrated heating system and extensive flushing functions to prevent contamination
- Dedicated laboratory information management system (LIMS) for odour laboratories
- Ergonomically designed with optimized human-to-machine interface

SUPPORTED METHODS:

- Yes / No (EN 13725)
- Dual Forced Choice
- Triangular Forced Choice (ASTM 679)
- Intensity (VDI 3882 Part1)
- Hedonic Tone (VDI 3882 Part2)
- Dual Forced Choice / Hedonic Tone (NVN 2818)
- Dual Forced Choice / Intensity
- Configurable intensity and hedonic tone scale
- Triangular odor bag method - GB/T 14675 - 93

SCOPE OF SUPPLY:

- Robust transport box
- 20 x 10 l bags
- 5 m compressed air connection PTFE pipeline
- Compressed air connection (8mm external)
- Proprietary calibration certificate in accordance with ISO 17025

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OLFACTOMETER TO EVOLUTION SERIES

T09 evolution olfactometer

A LIMS-supported mobile olfactometer for dual-forced-choice measurements

The T09 evolution olfactometer has all the functionality of the T08 evolution, plus the dual-forced choice method.

The maximum dilution increases to 2¹⁷ allowing you to measure samples of higher odour concentrations than is possible with the T08 evolution.

Just as the T08 evolution, this olfactometer can be used equally as a home-based

laboratory, as well as a mobile on-site laboratory. It meets all requirements of EN 13725:2022 and is available as a 4-station or 6-station olfactometer.

The provided WiNose LIMS ensures best quality at all odour measurement sites, by supporting you in fulfilling essential quality management and quality control procedures in your day-to-day lab operation and audit preparation.



We are happy to receive your inquiries via sales@olfasense.com!



T09 evolution olfactometer

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	4 stations: 615 x 615 x 535 mm 6 stations: 1140 x 615 x 535 mm
Weight	4 stations: 31 kg 6 stations: 43 kg
Maximum calibration interval	12 months (according to EN 13725)
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

INSTALLATION VIDEO



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Dilution principle	Gas jet pumps and calibrated precision orifices for sample dosage
Vent for surplus diluted odour	Outlet air via active carbon filter
Number of panel members working simultaneously	4 stations: 2 or 4 6 stations: 2, 4 or 6
Panel interface	Raspberry Pi 7", capacitive touch, 800 x 480 pixel
Analyses time for one sample (EN 13725:2022)	~ 4 min for 2 analysis runs* ~ 6 min for 3 analysis runs* (*under ideal conditions)
Required air supply	min. 180 l/min at 6 bar
Dilution range	2 ² (1:4) - 2 ¹⁶ (1:65,536) - Y/N 2 ³ (1:8) - 2 ¹⁷ (1:131,058) - D-F-C 2 ² (1:4) - 2 ¹⁶ (1:65,536) - T-F-C
Interval steps	28 dilution steps - Factor $\sqrt{2}$ (1.4) usable also in Factor 2 interval - 16 steps
Dilution accuracy	< 5%
Response / setting time	< 0.1 sec
Analytical recovery of odorants	85% up to 99% (EN 13725:2022 requires > 70%)
Required sample volume	> 500 OU/m ³ - 1l (Y/N)* ~ 64 OU/m ³ - 3l (Y/N)* > 16 OU/m ³ - 10l (Y/N)* (*estimation with default settings)



WiNose evolution LIMS

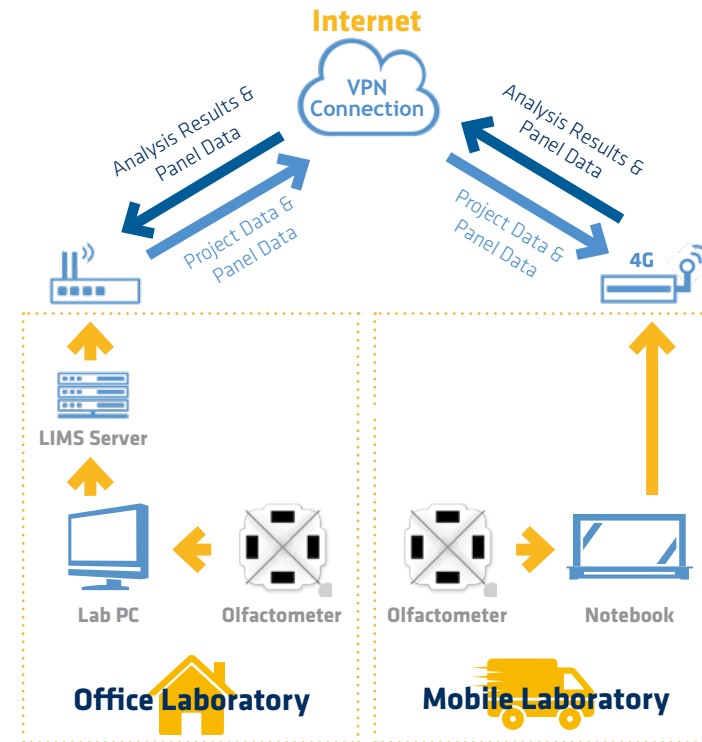
Ensuring quality at all measurement sites

BENEFITS OF WORKING WITH A LIMS ON SITE:

- Improved data access through simultaneous availability of the system
- Increased efficiency by managing samples, projects and results, equipment, panel and laboratory data in a centralized system
- Full traceability across all QM relevant data, as the complete QA/QC on site is synchronized with the QA/QC in the office lab to maintain data quality
- Operating multiple olfactometers with a centralized LIMS ensures data availability and consistency when measuring on-site, as measurement results are saved to the database in chronological order
- Quicker reporting to clients, as measurement results are available in real-time



Operating multiple olfactometers with a centralized LIMS ensures data availability and consistency when measuring on-site, while fulfilling all the requirements of EN 13725 as well as ISO 17025.



FACTS:

- 100% compliant to ISO 16000-28, ISO 16000-30 and VDI 4302 Part 1
- High accuracy of acetone concentrations
- Low room air contamination
- 16 different concentrations (PI scale 0 -15)
- Compact/portable
- Low gas consumption

SCOPE OF SUPPLY:

- 5 m compressed air connecting PTFE pipeline
- 1 x nose funnel
- 1 x power supply
- 1 x glass syringe for loading the container
- 1 x compressed air quick connector
- 1 x Allen key (size 5)

OPTIONAL:

- Nalophan gas sampling bags
- PureSniff XL
- Sampling Device Standard 60l
- Filter system
- Compressor

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OTHER ODOUR TESTING EQUIPMENT

Acetone Comparative Scale

Determining the perceived odour intensity

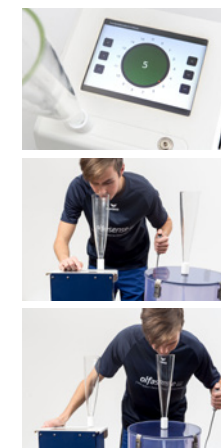
The Acetone Comparative Scale (ACS) by Olfasense is a comparative scale in accordance with ISO 16000-28, as well as ISO 16000-30 and VDI 4302, for the controlled presentation of concentrations of acetone in air for the purpose of a comparative estimation of odour intensity.

The 16 different concentrations (PI scale 0 -15) are created through the dosing and evaporation of liquid acetone into an open jet of the carrier air and presentation to the panel members by means of a glass nose funnel.

The ACS satisfies the requirements of ISO 16000-28, as well as ISO 16000-30 and VDI 4302, and allows the creation of the 16 levels after a free selection of the panel member.

Liquid acetone is required for the operation of the ACS. By calibrating the device with a suitable monitor (e.g. FID), the user can set it to the desired PI levels.

The ACS consists of a housing with a touch display as a user interface and a nose funnel for presenting the sample to the test person.



We are happy to receive your inquiries via sales@olfasense.com!



Acetone Comparative Scale

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	450 x 250 x 200 mm Height with nose funnel 750 mm
Weight	6.8 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Sample generation	Dosing through capillary tube with pressure regulation in reservoir and evaporation in an open jet nozzle
Volume flow	Supply line 60 l/min Sample air flow 40 l/min (preset by manufacturer)
Air supply	Oil-free, odourless compressed air or synthetic air 3 - 5 bar
Room temperature (Calibration-relevant)	23 °C +/- 2 °C
Pressure in reservoir	Max. 500 mbar
Electrical connection	230 V Table power pack, fixed voltage 12 V, 65 W

FACTS:

- Constant flow
- Standardised sample presentation
- PTFE and stainless steel (EN 13725)
- 100% compliant to ISO 16000-28 and VDI 4302 Part 1
- Easy to use and connect
- Intensity/Hedonic Tone/Liking

SCOPE OF SUPPLY:

- 1 nose funnel
- Remote control
- 10 x 60l gas sampling bags

OPTIONAL:

- Sampling function
- Power pack

OTHER ODOUR TESTING EQUIPMENT

PureSniff XL

Direct evaluation of odour samples

The main benefit of the PureSniff system is that it allows the standardised presentation of undiluted odour samples.

With a PureSniff device, you can measure an odour's intensity, hedonic tone and pleasantness by the direct evaluation of an undiluted sample.

As the operator triggers a volume flow, the odour sample streams out of the sample bag and passes through a funnel (diffuser) to the human nose.

Each olfactory tester or examiner gets an identical odour sample with a standardised volume flow and constant presentation time.

The PureSniff system is a valuable tool for market sectors such as the manufacturing of perfumes and fragrances, building materials, textiles, consumer goods and the automobile and personal care industries.

Additionally, the PureSniff XL can be used for indoor air sampling.





PureSniff XL

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	420 x 425 x 1200 mm
Weight	12.8 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Sample volume	60 l max
Duration of presentation	2.5 sec
Volume flow	0.7 l /sec (pre-set by manufacturer)
Air supply	2 - 5 bar
Power supply	External power supply (12V, 65W max)

FACTS:

- Fully compliant with
 - **GS97014-4 BMW Method** (Emission measurement with air exchange in a testing chamber - Determination of the olfactory behavior)
 - **ISO 12219-7** (Odour determination in interior air of road vehicles and test chamber air of trim components by olfactory measurements)
- Ready for comparable tests (sample A against sample B)
- Standardised sample presentation
- Constant flow
- PTFE and stainless steel (EN 13725)
- Easy to use and connect
- Intensity/Hedonic Tone/Liking

SCOPE OF SUPPLY:

- 2 nose funnels
- Remote control
- 10 x 10l gas sampling bags

OTHER ODOUR TESTING EQUIPMENT

PureSniff II

Comparable tests of undiluted odour samples

The PureSniff system allows the standardised presentation of undiluted odour samples. With the system, you can measure an odour's intensity, hedonic tone and pleasantness.

The PureSniff is an odour presentation device according to the automotive standards BMW GS 97014-4 and ISO 12219-7.

In addition, it is utilised for odour testing in market sectors such as building materials, consumer goods, fragrances, textiles and

personal care products.

The PureSniff II consists of two sealed tubes, which can be provided with gas sampling bags independently of each other, allowing for direct evaluation comparison tests (sample A versus sample B).

Each olfactory tester gets an identical odour sample with a standardised volume flow and constant presentation time (as described in ISO 16000-28).





PureSniff II

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	274 x 430 x 860 mm
Weight	9 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Sample volume	10 l max
Duration of presentation	2.5 sec
Volume flow	20 l/min
Air supply	2 - 5 bar
Power supply	External power supply (12V, 65W max)

FACTS:

- Fully compliant with
 - **GS97014-4 BMW Method** (Emission measurement with air exchange in a testing chamber - Determination of the olfactory behavior)
 - **ISO 12219-7** (Odour determination in interior air of road vehicles and test chamber air of trim components by olfactory measurements)
- Ready for comparable tests (sample A against sample B against sample C)
- Ready for triangular testing
- Standardised sample presentation
- Constant flow
- PTFE and stainless steel (EN 13725)
- Easy to use and connect
- Intensity/Hedonic Tone/Liking

SCOPE OF SUPPLY:

- 3 nose funnels
- Remote control
- 10 x 10l gas sampling bags

OTHER ODOUR TESTING EQUIPMENT

PureSniff III

Triangular tests of undiluted odour samples

The PureSniff system allows the standardised presentation of undiluted odour samples. personal care products

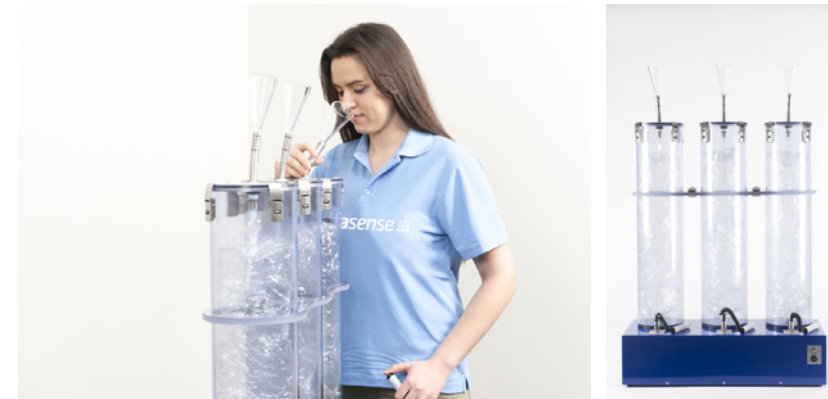
With the system, you can measure an odour's intensity, hedonic tone and pleasantness.

The PureSniff is an odour presentation device according to the automotive standards BMW GS 97014-4 and ISO 12219-7.

In addition, it is utilised for odour testing in market sectors such as building materials, consumer goods, fragrances, textiles and

The PureSniff III consists of three sealed tubes, which can be provided with gas sampling bags independently of each other, allowing for direct evaluation comparison tests (sample A versus sample B versus sample C) and triangular testing.

Each olfactory tester gets an identical odour sample with a standardised volume flow and constant presentation time (as described in ISO 16000-28).





PureSniff III

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	275 x 660 x 860 mm
Weight	12 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Sample volume	10 l max
Duration of presentation	2.5 sec
Volume flow	20 l/min
Air supply	2 - 5 bar
Power supply	External power supply (12V, 65W max)

FULLY COMPLIANT WITH

- **ISO 12219-4** (Determination of VOCs from vehicle interior parts and materials)
- **VDA 276** (Determination of Organic substances as emitted from automotive interior products using a 1 m³ test chamber)
- **GS97014-3 BMW Method** (Determination of VOCs from components, semifinished products and materials)
- **PN 780 Porsche Method** (Interieur – Emission behavior)
- **VCS 1027, 2769 Volvo Method** (Determination of volatile organic substances from interior components/systems using a 1 m³ emission chamber)
- **PV 3942 Volkswagen Method** (Determining organic emissions from components for the passenger compartment of motor vehicles. Emission test)

OPTIONAL

- SHED function for testing according to **GS-97014-2 BMW Method** (Emissions measurement in SHED chambers. Determination of volatile, organic emissions from components, semi-finished products and materials that do not carry fuel)
- Fogging device according to **VDA 276-2** and **VCS 1027, 2769 Volvo Method**
- **ISO 16000-9** (VOC emissions from building products and furnishing)
- **EN 16516** (VOC emissions from construction products)
- **EN 717-1** (Formaldehyde emissions from wood-based panels)
- **GEV – testing method** (VOC emissions from products for flooring installation, adhesives and building materials)

Is your test method not listed? Our application experts will be happy to confirm whether the EK1000 meets the requirements of your testing standard. Please contact us!

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VOC EMISSION TEST CHAMBERS

VOC test chamber EK1000

Highly accurate & affordable VOC chamber testing in the automotive industry

The Olfasense VOC emission test chamber EK1000 allows characterization of the emissions of volatile organic compounds under precise test conditions, and is fully compliant with the requirements of **ISO 12219-4** and **VDA 276**.

The chamber meets also all requirements of the manufacturer standards **GS97014-3** (BMW method), **PN 780** (Porsche method), **VCS 1027, 2769** (Volvo method), as well as **PV 3942** (Volkswagen method).

The chamber is optionally available with

a SHED function for testing according to **GS-97014-2**, as well as a fogging device according to **VDA 276-2** and **VCS 1027, 2769** (Volvo method).

The EK1000 has been developed as a joint venture with the company CTS, one of the leading specialists in the field of environmental simulation. By consolidating their respective know-how and expertise, our two companies provide clients a technically and economically optimized test system to characterize emissions of volatile organic compounds under precise test conditions.



We are happy to receive your inquiries via sales@olfasense.com!



VOC test chamber EK1000

STANDARD FEATURES

- Incubator with integrated VOC emission test chamber made of polished stainless steel
- Control panel
- 4 heated sample ports (e.g. Swagelok, others on request)
- Process monitoring sensor (temperature and humidity in the chamber) and functional reliability, mass flow control at chamber inlet
- Easy to maintain, plug-and-play humidity control unit
- Rotor with drive via non-contact magnetic coupling and emission-free ceramic bearings (speed adjustable)
- Viton door seal, lab water container, separate connections for compressed air and for purging air

OPTIONAL FEATURES

- Fogging-device (without cooling thermostat device) - VDA 276, VCS 1027, 2769
- Nose mask mounted directly on the test chamber - VCS 1027, 2769
- Tedlar bag for volume compensation - GS-97014-2
- Air cooled refrigerant compressor - GS-97014-2
- Lab water connection

[Go to Product Index](#)

VOC EMISSION TEST CHAMBERS

Technical Data

Description	EK1000	
Emission test space volume (usable)	1000 l (960 l)	
Conditioning	Air jacket temperature conditioning	
Temperature range	standard	Room temperature plus 5° C to +130° C (emission test)
	optional	from +15° C (e.g. SHED method)
Desorption	up to 210° C, adjustable	
Temperature deviation over time	+/- 0.1 K to +/- 0.3 K	
Temperature homogeneity spatially	+/- 0.1 K to +/- 0.5 K	
Humidity range	dew point 2° C to 20° C	
	abs. humidity 5 - 17 g/m ³ 25% rh to 80% rh (at 23° C)	
Air flow	Testing 1 - 17 l/min.	
	Flushing* 10 - 200 l/min (standard 50 l/min.)	
Air exchange rate	Testing 0.06 - 1.0 h ⁻¹	
	Flushing* 0.6 - 12 h ⁻¹ (standard 3 h ⁻¹)	
	(continuously adjustable via mass flow controller with optional high performance calibration +/- 0.3% of end value plus 0.5% of measurement value)	
Air change control	electronic MFC (long-term stability < 1%)	
Air velocity range (above test specimen)	0.1 - 0.5 m/s	
Leak tightness	< 0.1% test space volume per min. at 1000 Pa overpressure	
Test space	width	745 mm
	depth	1735 mm
	height	745 mm
	External dimensions (max.)	width 1413 mm depth 2800 mm height 2006 mm
Weight	approx. 1200 kg	
SPL	< 68 dB (A)	
Rated capacity (max.)	8.2 kW	
Power supply	400 V + 6 / -10%, 3/N, 50 Hz (other connections possible)	
Factory calibration (optional)	+23° C / 50% rh with max 1h ⁻¹ exchange rate and +65° C / 5% rh with max 0.4h ⁻¹ exchange rate	

* factory-set adjustable



VOC test chamber EK1000

Testimonial & Video

TESTIMONIAL

"AIMPLAS decided to purchase the Olfasense VOC emission test chamber EK1000 because of its professionalism, its proximity and, above all, the knowledge it demonstrated of the requirements of automotive standards.

Something very important for us. During the installation of the equipment, Olfasense helped the AIMPLAS staff to understand everything that is necessary for the correct functioning of the chamber, demonstrating once again their professionalism.

Without a doubt, it was a good choice."

- Nuria García Batista, PhD.; Chemical Laboratory - Identification AIMPLAS

VIDEO - WORKING WITH THE EK1000



Data privacy note: When clicking on the picture, you will open a Youtube video. To learn more about Youtube's data privacy policy, please visit https://www.youtube.com/t/privacy_at_youtube

SPECIFICATIONS

- 250l VOC emission test chamber (optional: 225l, 240l or other volumes)
- Compact, robust, competitively priced
- „Emission-free“ test chamber; minimal adsorption effects
- High accuracy and performance of all normative parameters
- Adjustable ventilation fan and (optional) hot-wire anemometer for optimized test specimen location
- Prevention of contamination from the surrounding environment
- Thermal desorption cleaning function up to 210°C

STANDARD COMPLIANCE - AUTOMOTIVE TESTING

- Fully compliant with
 - **PV 3942 Volkswagen Method** (Determining organic emissions from components for the passenger compartment of motor vehicles. Emission test)
 - **GS97014-3 BMW Method** (Determination of VOCs from components, semifinished products and materials)
 - **PN 780 Porsche Method** (Interieur - Emission behavior)
- Meets all requirements of **ISO 12219-4** (Determination of VOCs from vehicle interior parts and materials) - **with the exception of the chamber size**

STANDARD COMPLIANCE - COMBUSTIBLE AIR FRESHENERS

- Fully compliant with
 - **EN 16738** (Emission safety of combustible air fresheners – test methods)
 - **ISO 16000-9** (VOC emissions from building products and furnishing)
 - **EN 16516** (VOC emissions from construction products)
 - **GEV Testing Method** (VOC emissions from products for flooring installation, adhesives, and building materials)

In case your specific test method is not listed, our application experts will be happy to confirm if the chamber meets the requirements of your testing standard. Please contact us!

Go to Product Index

VOC EMISSION TEST CHAMBERS

Active temperature control

VOC emission test chamber for temperature control and thermal desorption purposes in various industry applications

The Olfasense VOC emission test chamber with active temperature control allows characterization of the emissions of volatile organic compounds under precise test conditions.

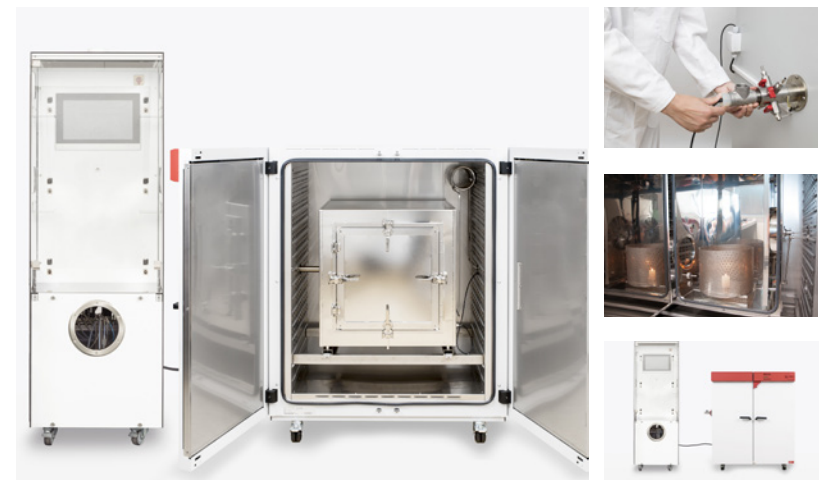
The VOC emission test chamber is fully compliant with common European and international standards as well as specific automotive manufacturers' standards.

For temperature control and thermal desorption, the VOC emission test chamber is

built into a technologically advanced incubator from a well-known German manufacturer.

The standard size of the chamber is 250l. Various other chamber volumes are optionally available.

The chamber can be used for highly accurate and affordable VOC chamber testing in different industry applications. These include chamber testing in the automotive industry as well as chamber testing of combustible air fresheners.



We are happy to receive your inquiries via sales@olfasense.com!



Active temperature control

Technical Data

OPTIONAL EXTENSION WITH ADDITIONAL CHAMBERS

The Olfasense VOC emission test chambers are equipped with a universal base unit, which offers you the possibility to add additional chambers, also at a later stage.

This modular design allows you to configure your chamber solution individually, even if you decide to purchase only one chamber initially.

Please check out our [VOC emission test chamber system EK mRack](#) or contact our experts to learn more about the features and benefits offered.

TESTIMONIAL

“For iLF Magdeburg GmbH, customer service comes first. We expect the same from our suppliers. In our view, Olfasense fulfills this in a first-class manner. The support and advice as well as the reliability of the Olfasense emission chambers are the decisive factors for us, which we will continue to rely on in future projects.”

- Dr. Ute Holzhausen, Head Materials Analysis at iLF Magdeburg GmbH

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	870 x 540 x 930 mm - size of chamber only 1700 x 1550 x 1000 mm - size with incubator
Weight	285 kg - weight of chamber with incubator 140 kg - weight of base unit
Chamber volume	250 l (225l, 240l or other volumes optionally available)
Air flow	1 to 10 l /min
Air exchange rate	0.24 to 2.4 h ⁻¹
Air change rate control	electronic MFC (long-term stability <1%)
Air velocity range (above test specimen)	0.1 to 1.0 m/s
Incubator temperature	5°C above ambient temperature (max. 210°C)
Operating temperature	65°C (standard-compliant for automotive testing)
Thermal desorption temperature	up to 210°C
Humidity range	15-70% RH (at 23°C)
Leak tightness tested	< 5% of total air exchange
Required clean air supply	15 l/min at 2 bar
Power supply	CEE16 (400V 16A) - incubator CEE7 (230V 50Hz) - control unit (other connections optionally available)

Passive temperature control

SPECIFICATIONS

- 250l VOC emission test chamber (225l, 240l or other volumes optionally available)
- Compact, robust, competitively priced
- „Emission-free“ test chamber; minimal adsorption effects
- High accuracy and performance of all normative parameters
- Adjustable ventilation fan and (optional) hot-wire anemometer for optimized test specimen location
- Prevention of contamination from the surrounding environment

STANDARD COMPLIANCE

Fully compliant with

- **ISO 16000-9** (VOC emissions from building products and furnishing)
- **EN 16516** (VOC emissions from construction products)
- **EN 717-1** (Formaldehyde emissions from wood-based panels)
- **GEV Testing Method** (VOC emissions from products for flooring installation, adhesives and building materials)

In case your specific test method is not listed, our application experts will be happy to confirm if the chamber meets the requirements of your testing standard. Please contact us!

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VOC emission test chamber to be used in a temperature-controlled room under general indoor air conditions.

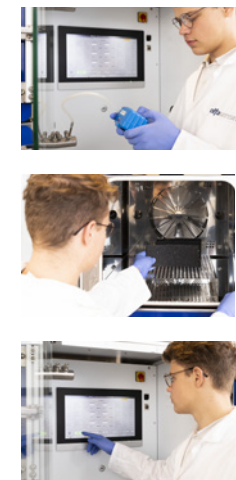
The quality of indoor air is strongly influenced by volatile organic compounds (VOCs) released from materials and products, including construction and building products, such as adhesives, furniture, paints, and many more.

The Olfasense VOC emission test chamber with passive temperature control allows characterization of the emissions of volatile organic compounds from these materials under precise test conditions.

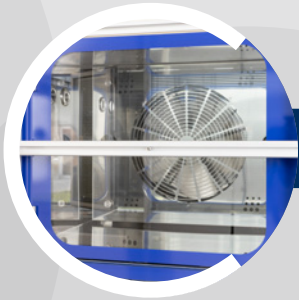
The chamber is fully compliant with the requirements of ISO 16000-9, EN 16516, EN 717-1, and GEV Testing Method.

The standard size of the chamber is 250l. Various other chamber volumes are optionally available.

The chamber is ready to be used for a broad analytical performance spectrum via 4 sample ports in a temperature-controlled room under general indoor air conditions.



We are happy to receive your inquiries via sales@olfasense.com!



Passive temperature control

Technical Data

OPTIONAL EXTENSION WITH ADDITIONAL CHAMBERS

The Olfasense VOC emission test chambers are equipped with a universal base unit, which offers you the possibility to add additional chambers, also at a later stage.

This modular design allows you to configure your chamber solution individually, even if you decide to purchase only one chamber initially.

Please check out our [VOC emission test chamber system EK mRack](#) or contact our experts to learn more about the features and benefits offered.

TESTIMONIAL

“We have been using Olfasense’s emission test chambers since market launch and we are very satisfied with both the product and the service. In our recent ISO 17025 accreditation audit, the installed emission test chambers have been successfully approved by the German accreditation body DAkkS, and are now included under the accreditation scope of Hohenstein Textile Testing Institute.”

- Rainer Fusenig, Assistant Head of Laboratory, Hohenstein Textile Testing Institute

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	444 x 953 x 590 mm - size of chamber only 687 x 962 x 1824 mm - size of chamber rack 612 x 832 x 1820 mm - size of base unit
Weight	43 kg - weight of chamber 40 kg - of chamber rack 140 kg - weight of base unit
Chamber volume	250 l (225l, 240l or other volumes optionally available)
Air flow	1 to 10 l /min
Air exchange rate	0.24 to 2.4 h ⁻¹
Air change rate control	electronic MFC (long-term stability <1%)
Air velocity range (above test specimen)	0.1 to 1.0 m/s
Operating temperature	23°C (standard-compliant)
Humidity range	15-70% RH (at 23°C)
Leak tightness tested	< 5% of total air exchange
Required clean air supply	15 l/min at 2 bar
Power supply	230V 50 Hz (other connections optionally available)
Nominal output	0.45kW

EK mRack chamber system

IN COMPLIANCE WITH:

- **ISO 16000-9** (VOC emissions from building products and furnishing)
- **EN 16516** (VOC emissions from construction products)
- **EN 717-1** (Formaldehyde emissions from wood-based panels)
- **GEV – testing method** (VOC emissions from products for flooring installation, adhesives and building materials)

DETAILS:

- VOC emission test chamber rack system with up to 6 VOC emission test chambers
- Available chamber volumes: 110 l, 125 l, 225 l, 250 l, 500 l (other volumes optionally available); max. 1500 l for all chambers combined
- Compact, robust, competitively priced
- „Emission-free“ test chamber
- High accuracy and performance of all normative parameters
- One volume flow sensor for checking the leak tightness and one flow velocity sensor for checking the air velocity above the test specimen

If you have additional requirements, please ask for your tailor-made product solution.

Go to Product Index

Scalable and efficient VOC chamber testing of building materials

The EK mRack is a modular VOC emission test chamber rack system, which can be equipped with up to 6 VOC emission test chambers for highly accurate, scalable and efficient VOC chamber testing of building materials.

Depending on the volume of the VOC emission test chamber, the EK mRack complies fully with the requirements of ISO 16000-9, EN 16516, EN 717-1, as well as the GEV Testing Method.

With a typical testing period of 28 days, the EK mRack allows for several tests to run

in parallel, which enormously increases the efficiency of your everyday laboratory work.

The modular rack system consists of a base unit with the possibility to connect one or two chamber racks.

Each rack can be equipped with up to 3 VOC emission test chambers in sizes 110 l, 125 l, 225 l, 250 l and 500 l. These sizes can be flexibly combined. This allows you to individually configure your EK mRack to meet your specific needs.



We are happy to receive your inquiries via sales@olfasense.com!



EK mRack chamber system

Technical Data

STANDARD FEATURES

- Modular rack system consisting of a base unit with the possibility to connect one or two chamber racks. Each rack can be equipped with up to 3 VOC emission test chambers in sizes 110 l, 125 l, 225 l, 250 l, 500 l (max. 1500 l for all chambers combined)
- Control for one mass flow controller per chamber to regulate the air exchange. Individual fan speed control for up to 6 chambers. Central humidity control (30 to 70% rel. H) for synchronous conditioning of up to 6 chambers.
- PLC control unit including Ethernet interface. Touch Panel 15,6"; 1920 x 1080 pixels.
- Stainless steel VOC emission test chambers with glass door and user-friendly door locks
- Process monitoring sensors (temperature and humidity). Mass flow controller for supply air control.
- Sampling connection with a Swagelok connector and three expansion slots.
- Easy to maintain humidity control unit

Developed and manufactured	Olfasense GmbH, Made in Germany
Type	EK mRack
Weight	up to 450 kg
Volume of VOC emission test chambers	110 l, 125 l, 225 l, 250 l, 500 l (other volumes optionally available); max. 1500 l for all chambers combined
Air flow	0.5 - 5 l/min adjustable for each chamber
Air exchange control	electronic MFC (long-term stability < 1%)
Air velocity range (above test specimen)	0,1 to 0,5 m/s adjustable for each chamber
Operating temperatur	23 ° C (standard-compliant) must be guaranteed at the installation site
Humidity range	30 to 70 % RH (at 23 °C)
Required clean air supply	15 l/min at 2 bar
Power supply	CEE7 (230V 50Hz) (other connections optionally available)

FACTS:

- Pre-dilution system according to EN 13725, ISO 12219-7 and BMW GS 97014-4
- Dilution set to 1:4. Other settings on request.
- Sampling and pre-dilution
- PTFE and stainless steel (EN 13725)
- Easy to use and connect
- Low noise level
- Precise sample pre-dilution

SCOPE OF SUPPLY:

- 1 x 3m compressed air connecting PTFE pipeline
- 10 x 10l Gas Sampling Bags
- Proprietary calibration certificate in accordance to ISO 17025

TECHNICAL DATA:

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	200 x 200 x 130 mm
Weight	2.4 kg
Dilution ratio	1:4
Air supply	Analytically pure laboratory air with a pre-pressure of 3 - 8 bar

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VOC EMISSION TEST CHAMBERS

EKV – Pre-dilution device

Pre-dilution device for VOC emission test chambers

The EKV pre-dilution device for VOC emission test chambers combines sampling and pre-dilution according to ISO 12219-7 and BMW GS 97014-4, which increases your efficiency in everyday laboratory work. The EKV is a dilution system operated by compressed air with a gas jet pump (Venturi nozzle) for the active suction and dilution of air samples at the sample connection of an emissions test chamber.

The fixed and calibrated dilution ratio (default settings on delivery 1:4 (1+3)), including

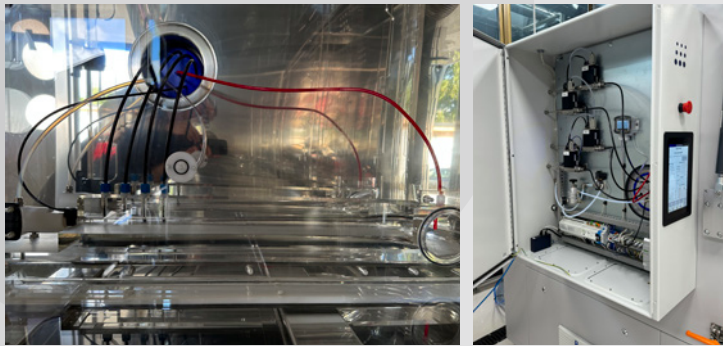
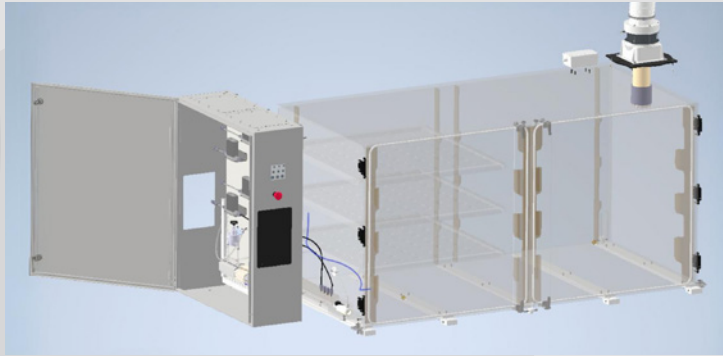
a proprietary calibration certificate in accordance with ISO 17025) actively transfers the diluted sample air into a sample bag with the highest accuracy.

The system consists of an air supply panel and a pump head, which can be mounted with a Swagelok screw connection on the sample connections of the emission test chamber (e.g. Olfasense EK250A or EK1000). The air supply panel has magnetic feet and can be installed on a desk or on a wall of the emission test chamber.



We are happy to receive your inquiries via sales@olfasense.com!

Unique corrosive gas dosing system



Our unique gas dosing system fits climate chambers of all sizes and can also be seamlessly integrated into existing climate chambers

Based on our extensive expertise in dynamic olfactometry and the resulting expertise in the mixing and dilution of gases, we have developed a unique corrosive gas dosing system.

This system enables extremely precise adjustment of the corrosive gas dosage, even at very low concentrations, and at the same time ensures ideal homogeneous mixing of the corrosive gases with the carrier gas.

Our corrosive gas dosing system can be easily adapted and integrated into different climate chambers of various sizes and can also be seamlessly integrated into existing climate chambers. If you have an older

climate chamber that you no longer use, we have the perfect solution for you. We can custom-fit our state-of-the-art corrosive gas dosing system into your existing chamber. This will save you money and increase the usability of your existing chamber, as the PMMA box can also be removed, making your climate chamber available for climate measurements again.

Thanks to this adaptability, we can offer you extremely versatile solutions that can be customised precisely to your specific requirements and the conditions of a wide range of test environments.

Contact us today to find out more about this efficient and cost effective option.

Example: IEC 60068-2-60 Corrosion test with flowing mixed gas

Volume	Sample Volume	Free Volume	Air Exchange	Flow MFS	Concentration in Steel Bottle				Concentration in Chamber				Set Value MFC			
					CRM Gas 1	CRM Gas 2	CRM Gas 3	CRM Gas 4	Gas 1	Gas 2	Gas 3	Gas 4	MFC 1	MFC 2	MFC 3	MFC 4
l	l	l	h ⁻¹	l/min.	vol%	vol%	vol%	vol%	ppb	ppb	ppb	ppb	ml/min.	ml/min.	ml/min.	ml/min.
1485	6	1479	4	98,60	0,05	0,4	0,03	0,3	10	200	10	200	1,97	4,93	3,29	6,57

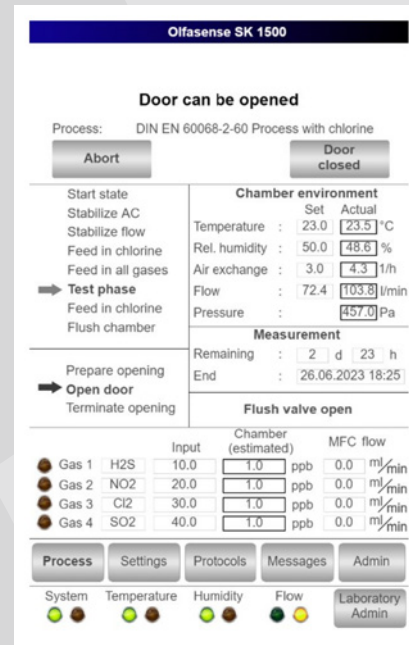
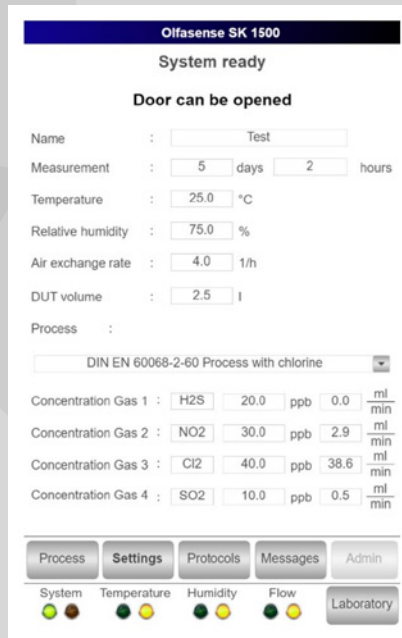
PERFORMANCE CHARACTERISTICS:

- » Possible test gases: hydrogen sulphide (H₂S), sulphur dioxide (SO₂), chlorine gas (Cl₂) with carrier gas N₂, nitrogen dioxide (NO₂) with carrier gas synthetic air, and others
- » Dosing of up to four corrosive gases with 4 corrosive gas dosing lines in the range 1-100 ml/min
- » Pressure monitoring as an integrated safety device for reliable operation
- » Connection for gas sampling for further analysis
- » Testing of the corrosive gas concentration optionally possible with dry air or nitrogen

Unique corrosive gas dosing system

KEY FACTS:

- » Ideal results thanks to high-precision corrosive gas dosing using a high-quality mass flow controller
- » Ideal injection of the corrosive gases in the carrier gas free jet and homogenization by diffuser expansion before entering the test chamber. As a result, even the smallest concentrations in the range of 10 ppb are homogeneously mixed and brought into the test chamber in the specified concentration.
- » Continuous monitoring of the air exchange rates and gas concentrations by three independent parameters with automatic switch-off when the process parameters are exceeded. These must include the recording and control of the test chamber internal pressure, the carrier air inflow rate, the supply air rate of the corrosive gas dosing and the fan characteristics in relation to the speed
- » Regulation of the air exchange rate by means of a flow sensor at the inlet of the corrosive gas test chamber. This ensures correct concentrations in accordance with the corresponding standard when the corrosive gases enter the test chamber, preventing concentrations from increasing above the standard value.
- » Software specially developed for the application of corrosive gas testing, which guides the user through the individual process steps in a user-friendly manner
- » Clear view of the test material thanks to high-quality acrylic glass windows (polymethyl methacrylate) that enable transparent observation
- » Compliance with industry-leading test standards such as IEC 60068-2-60, IEC 60068-2-42/43 and others to ensure reliable test results



Specially designed software

We have developed a specially designed user software to guide you through all standardised processes – entirely secure and uncomplicated.

It offers an intuitive user interface that guides you step by step through the entire corrosion testing process. This optimises your workflow and increases your efficiency.

PERFORMANCE CHARACTERISTICS:

- » Possible test gases: hydrogen sulphide (H₂S), sulphur dioxide (SO₂), chlorine gas (Cl₂) with carrier gas N₂, nitrogen dioxide (NO₂) with carrier gas synthetic air, and others
- » Dosing of up to four corrosive gases with 4 corrosive gas dosing lines in the range 1-100 ml/min
- » Pressure monitoring as an integrated safety device for reliable operation
- » Connection for gas sampling for further analysis
- » Testing of the corrosive gas concentration optionally possible with dry air or nitrogen

KEY FACTS:

- » Ideal results thanks to high-precision corrosive gas dosing using a high-quality mass flow controller
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- » Clear view of the test material thanks to high-quality acrylic glass windows (polymethyl methacrylate) that enable transparent observation
- » Compliance with industry-leading test standards such as IEC 60068-2-60, IEC 60068-2-42/43 and others to ensure reliable test results

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CORROSIVE GAS TEST CHAMBERS

SK400B - with Peltier cooling

Thanks to the latest Peltier technology combined with its energy efficiency, the SK400B offers many environmental and sustainability benefits.

With the SK400B corrosive gas test chamber, we have successfully integrated this corrosive gas dosing system into a KBF-S ECO 1020 Binder climate chamber.

Thanks to the latest Peltier technology, the SK400B does not require any refrigerant at all and is therefore not subject to the F-Gas Regulation. Combined with its energy efficiency, the SK400B offers many environmental and sustainability benefits.

The SK400B is – compared to corrosive gas chambers that require refrigerants

for climatisation – a cost-effective solution, without compromising the quality of standard-compliant climatic simulation for the specific corrosion test application.

The SK400B is characterised by a removable container made of transparent, corrosion-resistant plastic (PMMA) and can be equipped with up to 4 individual dosing lines. This enables both corrosion testing with individual gases and the simultaneous dosing of up to 4 corrosive gases. The Binder climatic chamber can also be used flexibly for other tests by removing the PMMA container.



We are happy to receive your inquiries via sales@olfasense.com!

SK400B - with Peltier cooling

HIGHLY ENVIRONMENTALLY FRIENDLY COOLING TECHNOLOGY

Thanks to the latest Peltier technology, which is based on the Peltier effect and converts electrical energy directly into temperature differences, the SK400B corrosive gas test chamber does not require any refrigerant at all.

This makes it possible to cool one side of a Peltier element and heat the other by applying an electrical voltage, which is used in applications such as portable coolers and temperature regulators.

As a result, the SK400B corrosive gas test chamber is not subject to the F-Gas Regulation, which will ban the commercialisation of “self-contained refrigeration systems” with a GWP value >150 from 2025. This means that refrigerants used to date (R23, R452a, R449a, etc.) will no longer be allowed.

The SK400B therefore presents a cost-effective solution for meeting your high-quality, standards-compliant corrosion testing needs, without relying on refrigerants for climatisation.

Manufacturer	Olfasense GmbH, Made in Germany
Description	SK400B
Volume/external dimensions of climate chamber	ca. 1000 Liter
Test space volume/external dimensions	ca. 400 Liter 618 mm x 606 mm x 1070 mm
Possible floors within the test room	up to 4
Material test space and premixing chamber	PMMA
Gas dosing via	high-precision mass flow controllers
Air exchange rate	3 to 10
Weight	ca. 500 kg
Temperature range	10° C to 60° C
Humidity range	10% rh to 80% rh
Dew point range	+15°C to +55°C

We reserve the right to make technical changes.

PERFORMANCE CHARACTERISTICS:

- » Possible test gases: hydrogen sulphide (H₂S), sulphur dioxide (SO₂), chlorine gas (Cl₂) with carrier gas N₂, nitrogen dioxide (NO₂) with carrier gas synthetic air, and others
- » Dosing of up to four corrosive gases with 4 corrosive gas dosing lines in the range 1-100 ml/min
- » Pressure monitoring as an integrated safety device for reliable operation
- » Connection for gas sampling for further analysis
- » Testing of the corrosive gas concentration optionally possible with dry air or nitrogen

KEY FACTS:

- » Ideal results thanks to high-precision corrosive gas dosing using a high-quality mass flow controller
- » Ideal injection of the corrosive gases in the carrier gas free jet and homogenization by diffuser expansion before entering the test chamber. As a result, even the smallest concentrations in the range of 10 ppb are homogeneously mixed and brought into the test chamber in the specified concentration.
- » Continuous monitoring of the air exchange rates and gas concentrations by three independent parameters with automatic switch-off when the process parameters are exceeded. These must include the recording and control of the test chamber internal pressure, the carrier air inflow rate, the supply air rate of the corrosive gas dosing and the fan characteristics in relation to the speed
- » Regulation of the air exchange rate by means of a flow sensor at the inlet of the corrosive gas test chamber. This ensures correct concentrations in accordance with the corresponding standard when the corrosive gases enter the test chamber, preventing concentrations from increasing above the standard value.
- » Software specially developed for the application of corrosive gas testing, which guides the user through the individual process steps in a user-friendly manner
- » Clear view of the test material thanks to high-quality acrylic glass windows (polymethyl methacrylate) that enable transparent observation
- » Compliance with industry-leading test standards such as IEC 60068-2-60, IEC 60068-2-42/43 and others to ensure reliable test results

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CORROSIVE GAS TEST CHAMBERS

SK1500C - with CO₂ refrigeration

With a test volume of 1500 L on up to 3 levels, the corrosive gas test chamber SK1500C is one of the largest corrosive gas test chambers on the market.

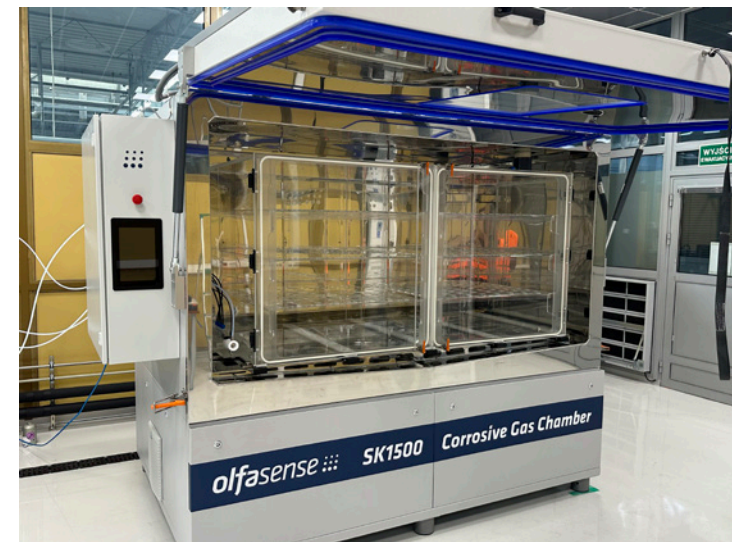
With the SK1500C corrosive gas test chamber, we have successfully integrated this corrosive gas dosing system into a CTS climatic chamber to ensure standardised climate simulation and thus enable reproducible induction of corrosion.

With a test volume of 1500L on up to 3 levels, the SK1500C is one of the largest corrosive gas test chambers on the market, allowing you to scale your corrosive gas measurements efficiently.

The SK1500C is characterised by a removable container made of transparent, corrosion-resistant plastic (PMMA) and can be equipped with up to 4 individual dosing lines.

This enables both corrosion testing with individual gases and the simultaneous dosing of up to 4 corrosive gases.

The CTS climatic chamber can also be used flexibly for other tests by removing the PMMA container.



We are happy to receive your inquiries via sales@olfasense.com!

TESTIMONIAL

“Our cooperation with Olfasense started a few years ago in the area of odours. (...) Excellent cooperation and trust arising from deep technical knowledge and skills also resulted in investment in a newly developed SK1500 noxious gases testing chamber tailored to our needs. The completely new product was delivered on time even though it was designed from scratch and we were kept informed on every step of the design and production of this unit. One single issue within a few months of usage was solved within 2-3 weeks by the designer himself. The expertise, knowledge and flexibility make Olfasense a really trustworthy partner not only a equipment provider.”

- Dr Krzysztof Brodzik, Materials Testing Department Manager at
BOSMAL Automotive Research & Development Institute Ltd



HIGHLY ENVIRONMENTALLY FRIENDLY REFRIGERATION TECHNOLOGY

The refrigeration technology of CTS climate chambers is designed entirely with CO₂ compressors and is therefore particularly environmentally friendly.

Background is the newest version of the F-Gas Regulation, which will ban the commercialisation of “self-contained refrigeration systems” with a GWP value >150 from 2025.

This means that refrigerants used to date (R23, R452a, R449a, etc.) will no longer be allowed. The only non-flammable refrigerant allowed will be CO₂.

The CTS CO₂ solution offers the following features and benefits:

- » Cooling with natural refrigerant CO₂ (R744)
- » CO₂ is non-toxic, non-flammable
- » CO₂ is easily and unlimitedly available worldwide and very inexpensive
- » Proven technology
- » No static cooling required
- » Low filling volumes
- » No leak test required for CO₂ refrigerant circuit

CORROSIVE GAS TEST CHAMBERS

SK1500C - Technical data

Manufacturer	Olfasense GmbH, Made in Germany
Description	SK1500C
Volume/external dimensions of climate chamber	ca. 2800 Liter 2200 x 1150 x 1100 mm (BxTxH)
Test space volume/external dimensions	ca. 1500 Liter 1850 x 900 x 900 mm (BxTxH)
Possible floors within the test room	up to 3
Material test space and premixing chamber	PMMA
Gas dosing via	high-precision mass flow controllers
Air exchange rate	2 to 4
Weight	ca. 2500 kg
Temperature range	10° C to 60° C
Humidity range	10% rh to 80% rh
Dew point range	+15°C to +55°C

We reserve the right to make technical changes.

PERFORMANCE CHARACTERISTICS:

- » Possible test gases: hydrogen sulphide (H₂S), sulphur dioxide (SO₂), chlorine gas (Cl₂) with carrier gas N₂, nitrogen dioxide (NO₂) with carrier gas synthetic air, and others
- » Dosing of up to four corrosive gases with 4 corrosive gas dosing lines in the range 1-100 ml/min
- » Pressure monitoring as an integrated safety device for reliable operation
- » Connection for gas sampling for further analysis
- » Testing of the corrosive gas concentration optionally possible with dry air or nitrogen

KEY FACTS:

- » Ideal results thanks to high-precision corrosive gas dosing using a high-quality mass flow controller
- » Ideal injection of the corrosive gases in the carrier gas free jet and homogenization by diffuser expansion before entering the test chamber. As a result, even the smallest concentrations in the range of 10 ppb are homogeneously mixed and brought into the test chamber in the specified concentration.
- » Continuous monitoring of the air exchange rates and gas concentrations by three independent parameters with automatic switch-off when the process parameters are exceeded. These must include the recording and control of the test chamber internal pressure, the carrier air inflow rate, the supply air rate of the corrosive gas dosing and the fan characteristics in relation to the speed
- » Regulation of the air exchange rate by means of a flow sensor at the inlet of the corrosive gas test chamber. This ensures correct concentrations in accordance with the corresponding standard when the corrosive gases enter the test chamber, preventing concentrations from increasing above the standard value.
- » Software specially developed for the application of corrosive gas testing, which guides the user through the individual process steps in a user-friendly manner
- » Clear view of the test material thanks to high-quality acrylic glass windows (polymethyl methacrylate) that enable transparent observation
- » Compliance with industry-leading test standards such as IEC 60068-2-60, IEC 60068-2-42/43 and others to ensure reliable test results

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CORROSIVE GAS TEST CHAMBERS

SK400C - with CO₂ refrigeration

Efficiently scale up your corrosion tests, while staying compliant with the latest version of the F-Gas Regulation.

With the SK400C corrosive gas test chamber, we have successfully integrated this corrosive gas dosing system into a CTS climatic chamber to ensure standardised climate simulation and enable reproducible induction of corrosion.

Its refrigeration technology - based entirely on CO₂ compressors - is compliant with the latest version of the F-Gas Regulation.

A test volume of 400 litres on up to 3

levels allows you to efficiently scale up your corrosion tests.

The SK400C is characterised by a removable container made of transparent, corrosion-resistant plastic (PMMA) and can be equipped with up to 4 individual dosing lines. This enables both corrosion testing with individual gases and the simultaneous dosing of up to 4 corrosive gases. The CTS climatic chamber can also be used flexibly for other tests by removing the PMMA container.



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SK400C - Technical data

HIGHLY ENVIRONMENTALLY FRIENDLY REFRIGERATION TECHNOLOGY

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- » CO₂ is easily and unlimitedly available worldwide and very inexpensive
- » Proven technology
- » No static cooling required
- » Low filling volumes
- » No leak test required for CO₂ refrigerant circuit

Manufacturer	Olfasense GmbH, Made in Germany
Description	SK400C
Volume/external dimensions of climate chamber	ca. 1000 Liter 1514 x 2244 x 2262 mm (BxTxH)
Test space volume/external dimensions	ca. 400 Liter 650mm x 850mm x 720mm (BxTxH)
Possible floors within the test room	up to 3
Material test space and premixing chamber	PMMA
Gas dosing via	high-precision mass flow controllers
Air exchange rate	3 to 10
Weight	ca. 1000 kg
Temperature range	10° C to 60° C
Humidity range	10% rh to 80% rh
Dew point range	+15°C to +55°C

We reserve the right to make technical changes.

FACTS:

- Filter system for laboratory use
- Portable
- Easy to use
- Low maintenance
- Connection via oil free compressor or compressed gas possible
- Separation of moisture, organic compounds and dust

SCOPE OF SUPPLY:

- 3 m PA tube 8x6x1
- 2 m PTFE tube 8x6x1
- 1 pressurized air gun
- T-unit 8 mm
- Optional: Filter material exchange set

TECHNICAL DATA:

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	510 x 340 x 135 mm
Weight	4 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)
Pressure	max. 6 bar, pressure limit valve
Filling materials	Silica gel, activated carbon, cotton, micro-fine filter
Maintenance interval	Depending on supply air

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ODOUR LABORATORY ACCESSORIES

Filter system

Filter system for odour laboratories

This easy-to-use filter system consists of a PCA tube (Makrolon®) with a stainless steel lid and base. This unit is available with four feet for mobile application or with a wall bracket for use in odour laboratories.

The filter system connects an oil-free compressor, or a bottle of compressed gas, and the olfactometer.

It is filled with silica gel, activated carbon, filter cotton and a microfine filter for

the separation of moisture, organic compounds and dust. The aim is to achieve uncontaminated reference-air, or zero-air. The air inlet and outlet are 8mm compressed air quick connectors.

The system has been tested to 6 bar. The pressure limit valve limits the working pressure of the TO-series olfactometer to 4 bar, which stabilises the system and ensures a constant working pressure.



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Compressor

TECHNICAL DATA:

Type	CairPrime 360-10 DA/Box
Suction capacity	360 L/min
Effect. quantity delivered	225 L/min (at 6 bar)
Max. pressure	10 bar
Voltage	230 V
Frequency	50 Hz
Sound pressure level	57 dB(A)
Reservoir volume	50 L
Dimensions (L x W x H)	700 x 580 x 1100 mm
Weight	movable on wheels
Necessary cooling air in room	1000 m ³ /h
Min. / max. room temperature	+5 / +35 °C

Compressor for air supply

To run an olfactometry laboratory, you need an oil-free compressor to provide pressurised air to the olfactometer and other equipment.

Olfasense offers (only in Germany) medical air compressors for the olfactometers of the TO evolution series.

These have several key benefits:

- absolutely oil-free, dry and clean compressed air
- minimal noise level
- protect the 'health' of panellist and of connected equipment.



FACTS:

- Available sample volumes: 10 l, 30 l, 60 l
- Micro processor controlled pump, flow controlled by orifice disc
- 5 min, 10 min, 15 min or 30 min continuous sampling
- VDI 3880 and EN 13725 compliant
- Easily portable
- Stops automatically
- High quality rechargeable batteries (last for about 16 x 30-minute samples)

SCOPE OF SUPPLY:

- Calibrated nozzle for 30-minutes sampling
- Battery charger
- PTFE flexible probe tube 2 m
- Countdown timer
- 10 x Gas Sampling Bags (10 l, 30 l, or 60 l)

OPTIONAL:

- Stainless steel probe
- Calibrated nozzle for different volumetric flows (i.e. filling times)

SAMPLING EQUIPMENT

CSD30

Continuous odour sampling device

The CSD30 is a sampling device for collecting air (odour) samples in gas sampling bags, with a default odour sampling duration of 30 minutes. The CSD30 is available with different sample volumes: 10 l, 30 l, 60 l.

Using the lung principle, the sample flows into the gas sampling bag through the sampling tube only, without passing through pumps or other equipment.

The materials used for 'wetted' parts that are in contact with the sample flow are PTFE and

stainless steel, in compliance with EN 13725 and VDI 3880. The sample flow is regulated using a calibrated nozzle that's integrated in the sampling device. Other nozzles, flows and filling times are available on request.

The sampling flow is closed automatically once the gas sampling bag is full. Alternatively, you can select a shorter sampling duration using a countdown timer. The CSD30 sampling device operates from its integrated rechargeable NiCd battery, so it does not require an AC power connection.



CSD30 with 10 l sample volume

Technical Data



CSD30

SAMPLE VOLUME: 10 L

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	700 x 190 x 260 mm
Weight	4.8 kg
Warranty	24 months (warranty extension up to 5 years through service contracts possible)

SAMPLE VOLUME: 30 L

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	640 x 420 x 350 mm
Weight	11.2 kg
Warranty	24 months (warranty extension up to 5 years through service contracts possible)

SAMPLE VOLUME: 60 L

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	1040 x 420 x 350 mm
Weight	13.9 kg
Warranty	24 months (warranty extension up to 5 years through service contracts possible)

SAMPLE VOLUME: 10 L

Sample volume (bag size)	10 l
Filling time	30, 15, 10 or 5 minutes
Suction pressure	50 mbar
Battery NiCd	6V 5Ah

SAMPLE VOLUME: 30 L

Sample volume (bag size)	30 l
Filling time	30, 15, 10 or 5 minutes
Suction pressure	50 mbar
Battery NiCd	6V 5Ah

SAMPLE VOLUME: 60 L

Sample volume (bag size)	60 l
Filling time	30, 15, 10 or 5 minutes
Suction pressure	50 mbar
Battery NiCd	6V 5Ah

FACTS:

- 2 versions: Classic (10 l) and XL (60 l)
- Quick, short sampling
- Easy to use
- High-quality, rechargeable batteries

SCOPE OF SUPPLY:

- Charger
- PTFE probe tube 2 m
- 10 x 10l or 60l Gas Sampling Bags

TECHNICAL DATA:

	Classic version	XL version
Manufacturer	Olfasense GmbH, Germany	
Dimension (L x W)	730 x 160 mm	1020 x 350 mm
Weight	4.5 kg	15 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)	
Sample volume (bag size)	10 l	60 l
Filling time	30 - 60 s	180 - 360 s
Maximum vacuum output	500 mbar	
Recommended range of application	+/- 150 mbar	
Lead-gel batteries	2 x 6 V	

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SAMPLING EQUIPMENT

Standard sampling device

Quick, short odour sampling

Our standard sampling device is available in two different sizes: The classic version is designed for 10-litre gas sampling bags; the XL version even for 60-litre bags.

The standard sampling devices consist of a vacuum container that is evacuated by a vacuum pump. The sampling point and the standard sampler are connected by a probe.

When the sampling device is evacuated, the gas sampling bag inside sucks in sample air via the probe. The sampling device is constructed to make sure that none of its components come into contact with the

sample air during this process.

This device can be used for sample pressures of 150 mbar at the peak of the probe (in the air flow cross-section). It takes 30 to 60 seconds to fill a 10-litre gas sampling bag (180 to 360 sec for a 60-litre bag), depending on the pressure conditions. Users can easily check the filling and probe conditions, as the cylinder is made of transparent PVC.

The standard sampling device is robust, light and easy to use. Battery-operated, the sampling pump can be used without a main power supply.



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FACTS:

- For sampling on ventilated surfaces, such as a biofilter
- Can be taken apart for easy transportation
- VDI 3880 and EN 13725 compliant

SCOPE OF SUPPLY:

- Hood made of aluminum (1m² with carry handles)
- Chimney Ø 150 mm with wind collar

OPTIONAL:

- Cover plate with sampling connection for measuring saturation concentrations on passive sources rubber skirting running round the base of the hood

TECHNICAL DATA:

Manufacturer	Olfasense GmbH, Germany
Base surface	1m ²
Dimension (L x WxH)	100 cm x 100 cm x 165 cm
Diameter of the chimney	150 mm
Weight	12.5 kg
Material	AlMg3 raw
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

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SAMPLING EQUIPMENT

Non-ventilated sampling hood

Sampling of flow area sources

This hood allows defined sampling of flow area sources with very low discharge speeds (e.g. biofilters and ventilated compost piles).

The volume of the exhaust air flow is guided through the hood and the chimney, and is consolidated. The sampling hood has a base surface area of 1m² and a chimney with a diameter of 150mm.

It is easy to transport, as the chimney can be detached from the body of the hood by loosening the four knurled nuts. There are also carry handles on the body of the hood.

As the hood's susceptibility to side-winds is a particular problem at the chimney outlet, a wind collar is used here to keep the flow conditions in the hood constant.



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FACTS:

- For sampling on solid or liquid surfaces
- CSD30 combinable
- Light and easy to use
- VDI 3880 and EN 13725 compliant

SCOPE OF SUPPLY:

- Floater for liquid surfaces
- High-quality Lithium battery
- Charger power pack for use on 230V connections
- Connection cables
- Remote control

OPTIONAL:

- Sampling device CSD30

SAMPLING EQUIPMENT

Ventilated sampling hood

Sampling non-ventilated, odour-emitting area sources

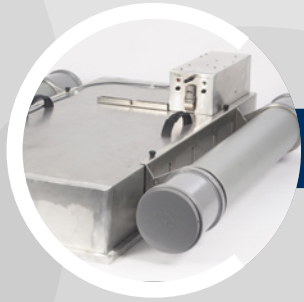
The ventilated sampling hood is part of the 30-minute CSD30 sampling system. It's used primarily for sampling non-ventilated, odour-emitting solid or liquid area sources. When sampling liquids, floats are attached to the sides of the hood.

From there, the air is distributed across the whole surface of the hood, and absorbs the emitted odourants. It is then extracted to the opposite corner by the second radial fan, via another exchangeable orifice with the same volumetric flow.

The hood itself is automatically ventilated by two radial fans with a constant volumetric flow. The inlet fan sucks in outside air via an exchangeable orifice and transports the air from the top into a corner of the hood through an active carbon filter.

The sample for olfactometer tests (usually carried out using the CSD30 sampling system) is taken from the suction nozzles. The same volumetric flow is provided on the inlet side and the suction side.





Ventilated sampling hood

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	Ready for use approx. 1030 / 530 / 250 mm
Weight	Depending on the design approx. 10 to 13 kg
Material	Al Mg 3 19 chromatised
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Adjusting the volumetric flow	Exchangeable orifice on the suction side at the inlet and suction fan
Flow approx. [$\text{m}^3/(\text{m}^2 \times \text{h})$]	30 / 15 / 7.5
Power supply	Lithium battery 12 V with charger
Sampling time with CSD30	30, 15, 10 or 5 minutes
Power consumption	Approx. 1 A

FACTS:

- Determine the detection threshold
.....
- Optimise your substance:perception ratio (linear or logarithmic scale)
.....
- Find out how your sample is perceived
.....
- Compare samples
.....
- Determine the molecular profile of your sample
.....
- Optimise your formula
.....

SCOPE OF SUPPLY:

- 1 LiGaVa incl. 1 temperature control unit and 1 vaporization unit (heating block)
.....
- 10 x 10l Gas Sampling Bags
.....

OPTIONAL:

- Heating power supply
.....
- Additional heating blocks
.....

SAMPLING EQUIPMENT

LiGaVa

Liquid to gas vaporiser

The LiGaVa system vaporises any kind of liquid into the gas phase. Because time, volume stream, temperature and amount of liquid are all known variables, it is a highly standardised odour sampling system.

It is also simple to operate: just inject a set volume of the liquid sample (e.g. a fragrance, aromatic, alcohol or fuel) into the LiGaVa, which will vaporise it. You can achieve the correct vapour pressure for your particular liquid sample by individually setting the

evaporation temperature (up to 220°C). As the gas is formed, it streams into a connected sample bag at a constant volume flow rate.

Once the liquid is in gaseous form, it is ready for various analyses:

- odour concentration
- odour intensity and pleasantness
- molecular profile.





LiGaVa

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H) a) Control unit b) Heating block	a) 470mm x 180mm x 485mm b) 120mm x 120mm x 80mm
Weight a) Control unit b) Heating block	a) approx. 6 kg b) approx. 2 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Adjustable temperature range	5°C above room temperature to 250°C
Air supply	3-8 bar clean compressed air
Volume flow outlet	1-20 l/h
Power supply	230V AC (90-264V 47-63Hz)

FACTS:

- Predilution system for laboratory work according to **EN 13725** and **ISO 12219-7**
.....
- Dilutions pre-set to 1:10 and 1:100. Other settings on request.
.....
- Also available with dilution factor 1:4 (1+3) according to **BMW GS 97014-4**.
.....
- PTFE and stainless steel (EN 13725)
.....
- Easy to use and connect
.....
- Portable
.....
- Low noise level
.....
- Fast sample pre-dilution
.....

SCOPE OF SUPPLY:

- 2 x 3m compressed air connecting PTFE pipeline
.....
- 1 T-unit 8 mm
.....
- 10 x 10l Gas Sampling Bags
.....
- Heating system
.....
- Proprietary calibration certificate in accordance to ISO 17025
.....

OPTIONAL:

- Underpressure sampling device (20,000 Pa)
.....

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SAMPLING EQUIPMENT

EPD predilution device

Predilution system for highly concentrated odour samples

The EPD is an easy to use pre-dilution system for highly concentrated odour samples. It has been developed to increase the measuring range at high odorant concentrations for olfactometers.

And, because it ensures that the odour concentration of the air is not too high, it also prevents self-contamination of the olfactometer.

The EPD is designed for use in olfactometry laboratories and gives the operator the

opportunity to process odour samples with a concentration of up to 6×10^6 OU_E/m³ with just one additional mixing process.

Because the dilution precedes the olfactometric measurement, virtually all known odour emissions from environmental protection and industrial markets can be olfactometrically measured using this device.

In addition, the EPD can be used for dynamic pre-dilution as described in the automotive standards ISO 12219-7 and BMW GS 97014-4.



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EPD predilution device

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	145 x 105 x 250 mm
Weight	2 kg
Maintenance interval	12 months (according to EN 13725)
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Dilution principle	Gas jet pumps
Dilution ranges	Standard: 1:10/1:100 Dilutions from 1:2 to 1:200 on request
Standard deviation of the dilutions	< 5%
Response time	< 1s
Setup time	< 1s

FACTS:

- Sample pre-dilution at source
.....
- Avoids losses due to condensation
.....
- Includes a Prandtl tube for air speed monitoring
.....
- VDI 3880 compliant
.....

SCOPE OF SUPPLY:

- Stainless steel pre-dilution probe, with sapphire screen for approx. 1:10
.....
- Connection tubes
.....
- Calibration datasheet
.....

OPTIONAL:

- Additional sapphire screens for different dilution ratios of approx. 1:5 or 1:20
.....

ADDITIONAL REQUIREMENTS:

- N₂, compressed air cylinder
.....
- Sampling device
.....
- Pressure reducer (two-level recommended)
.....

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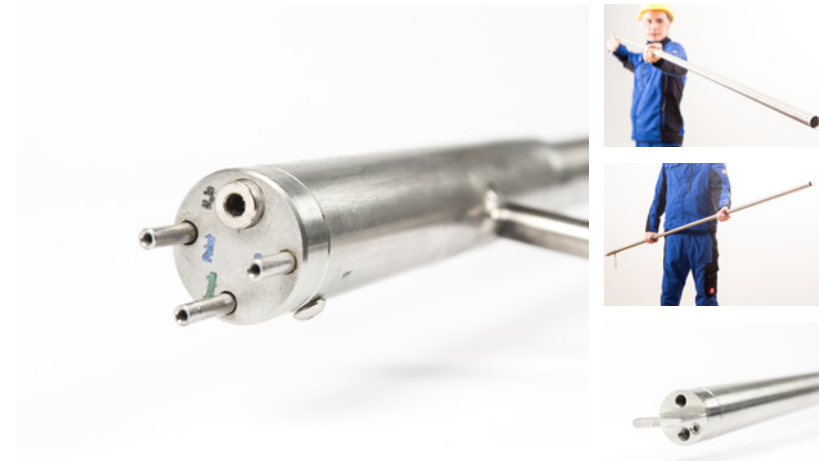
SAMPLING EQUIPMENT

GSP predilution device

On-site sample predilution device

The GSP can supplement the CSD30 sampling device, and dilutes the sample directly at the sampling point. Sample pre-dilution can be performed with nitrogen or synthetic air, whereby the pre-dilution ratio is fixed by the manufacturer (standard 1:10 with individual calibration data). The pre-dilution ratio can, however, be set to different exhaust air conditions on request by substituting the 1:10 screen with a sapphire screen accessible from the outside (e.g. dilution 1:5 or 1:20). The sample pre-dilution system provides the sample air flow with a constant supply of

nitrogen (N₂) or synthetic air directly onto the tip of the sampling probe. The moist, warm sample is diluted immediately at the point of extraction with dry N₂ or synthetic air. This means that when it cools down to the transportation and laboratory temperature, no condensation forms on the probe, in the tube or in the sample bag. As a result, no additional heating is necessary. The GSP also has a built-in particle filter to protect against contamination, and a micro Prandtl tube, which can be used to monitor the sampling process.



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GSP predilution device

Technical Data

Manufacturer	Olfasense GmbH, Germany
Dimension (L x W x H)	1800/150/30 mm, can be expanded by 800 mm using an extension probe
Weight	1.5 kg
Warranty	24 months (warranty extension up to 5 years through servicecontracts possible)

Control mechanism of the volume flow	Gas jet pumps
Sample air	Calibrated sapphire screen
Nitrogen or synthetic air	With a pressure reducer (two-level recommended)
Nitrogen or synthetic air consumption	approx. 100l/h
Sampling time with CSD30	30 or 10 minutes
Pressure at the sampling point	-200 hPa bis +40 hPa
Max. Temperature at the sampling point	240° C

FACTS:

- Made from Nalophan® (PET) and PTFE
- Ready-to-use sample bags for dynamic olfactometry
- Certified within the ISO 17025 scope
- Taste-free
- Minimal background emission (less than PVF)
- Custom sizes available on request

SCOPE OF SUPPLY:

- 10, 20, 50 or 100 Gas Sampling Bags
- 5, 10 or 20 PTFE seals

OPTIONAL:

- Sampling device standard
- Sampling device CSD30
- PureSniff II, III, XL

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SAMPLING EQUIPMENT

Gas sampling bags

Certified ready-to-use sample bags

Our ready-to-use sample bags have been designed to meet the quality requirements of EN 13725, to minimise the risk of contamination of odour samples.

Olfasense's sample bags are made of Nalophan® and PTFE tubing to minimise surface reactions with sulphurs.

Within the ISO 17025 accreditation scope, the Nalophan® is tested according to No. 6.3.2 of

the European Norm EN 13725 as well as according to No. 4.3.1 of the German guideline VDI 3880 and is released as norm-compliant material for the sampling of odours. Analysis results are traceable to the olfactometric measurement method EN 13725.

Customised sizes are available on request.

If you are interested in Tedlar or Kynar gas sampling bags, please get in touch with us.



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Gas sampling bags

Technical Data

Type	10 l	30 l	60 l
Amount	10, 100	10, 100	10, 100
Connectors	PTFE Outside Ø 8mm Inner Ø 6mm	PTFE Outside Ø 8mm Inner Ø 6mm	PTFE Outside Ø 8mm Inner Ø 6mm
Sealings	LDPE caps	LDPE caps	LDPE caps
Sampling device	CSD30 (10 l), Standard Sampling Device (10 l - model from 2014 onwards)	CSD30 (30 l)	CSD30 (60 l), Standard Sampling Device (60 l), PureSniff XL - sampling function

FACTS:

- Sniffing sticks for regular internal training sessions
- The stability of the sticks is 6 months. A very regular use of the sticks might reduce the time of usability.

AVAILABLE SETS

- Set 1 - Sniffing Sticks for panel selection in accordance with ISO 12219-7; annex G
- Set 2 - Sniffing Sticks for panel training on odour characters in accordance with ISO 12219-7; annex D
- Set 3 - Sniffing Sticks for panel training on odour intensity according to the Olfasense in-house standard
- Set 4: Characterization of environmental odours
- Set 5: Olfactory characterization of leather
- Set 6: Olfactory characterization of plastics
- Set 7: Odour wheel with sniffing sticks
- Set 8: Identification of everyday odours
- Set 9: Panel training on odour intensity with isovaleric acid
- Set 10: Panel training on odour intensity with oxidised polypropylene
- Set 12: Panel training on odour intensity with 2-methylnaphthalene
- Customised sniffing sticks set

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SNIFFING STICKS

Olfasense Sniffing Sticks

Panel selection and training according to common standards

The accurate selection, training and monitoring of panelists to meet the stringent requirements of odour analyses is of great importance to Olfasense.

Besides specialist odour training packages, Olfasense offers different sniffing stick sets to companies that want to set up a new odour panel and/or want to improve their odour panel performance

according to common standards, such as ISO 12219-7.

We also offer you the opportunity to have your own customised sniffing sticks sets, specially adapted to your needs.

For more information, please contact us to discuss your requirements.



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Olfasense Sniffing Sticks

Available sets

<p>- Set 1 - Sniffing Sticks for panel selection in accordance with ISO 12219-7; annex G</p>	<p>For odour panels, it is important to have panelists with a normal olfactory function. This set of sniffing sticks is made for panel selection using 5 standard odorants in accordance with ISO 12219-7:2017,annex G.</p>
<p>- Set 2 - Sniffing Sticks for panel training on odour characters in accordance with ISO 12219-7; annex D</p>	<p>This set of sniffing sticks is used to train a panel for odour characters. The olfactory perception is characterized by poles which are represented by one or several odorous chemical molecules. These poles and corresponding molecules typical of automotive products are described in the ISO 12219-7.</p>
<p>- Set 3 - Sniffing Sticks for panel training on odour intensity with n-butanol according to the Olfasense in-house standard</p>	<p>To have a homogenous and representative panel, Olfasense has developed an odour intensity test using sniffing sticks. For odour intensity evaluation the idea is that panelists are trained to detect different concentrations and the corresponding intensity levels. The ability of each panelist to judge the correct intensity levels for unknown concentrations will be checked in a performance test.</p>
<p>- Set 4 - Characterization of environmental odours</p>	<p>This set of sniffing sticks can be used for the olfactory characterization of environmental odours.</p>
<p>- Set 5 - Olfactory characterization of leather</p>	<p>This set of sniffing sticks is used to train a panel on the olfactory notes and chemical descriptors for leather characterization.</p>
<p>- Set 6 - Olfactory characterization of plastics</p>	<p>This set of sniffing sticks is used to train a panel on the olfactory notes and chemical descriptors for plastic characterization.</p>
<p>- Set 7 - Odour wheel with sniffing sticks</p>	<p>A successful method to establish a common language among odour panellists is the use of an odour wheel and sniffing sticks with corresponding odour characters. Olfasense has developed an odour wheel that provides panellists with an overview of odour characters structured in classes. The odour wheel is based on odour literature and was refined by experienced Olfasense GC-sniffing panellists, who also selected the most suitable sniffing sticks.</p>
<p>- Set 8 - Identification of everyday odours</p>	<p>This set can be used to train the perception and recognition of odours, and to determine whether a panellist's sense of smell can be classified as "normal" or "restricted", as described for example in the EN 16841-1.</p>
<p>- Set 9 - Odour intensity with isovaleric acid</p>	<p>This set can be used for panel training e.g. in the body care, textile, or home care industry, to identify different odour intensity levels of isovaleric acid (sweat smell).</p>
<p>- Set 10 - Odour intensity with oxidised polypropylene</p>	<p>This set can be used for panel training e.g. in the automotive and building materials industry, to identify different odour intensity levels of oxidised polypropylene.</p>
<p>-Set 12 - Odour intensity with 2-methylnaphthalene</p>	<p>This set can be used for panel training e.g. in the chemical or building material industry, to identify different odour intensity levels of 2-methylnaphthalene.</p>
<p>Customized sniffing sticks sets</p>	<p>Choose the set of sniffing sticks that suits your requirements best! Download an overview of sniffing sticks that have already been used in individual applications. If your compound/substance is not listed, or you need a targeted scaling/calibration, please get in touch and we'll be happy to discuss your requirements.</p>

Ortelium

READY-TO-USE MODULES:

- Observation Intelligence: Collect, analyse, manage and report event-based observations, and share your data with stakeholders.
- Weather Data: Cross-check and validate other data channels against weather data.
- Impact Modelling: Calculate and visualise your emissions dispersion on a digital map
- Sensor Mapping: Integrate any kind of sensor for continuous environmental monitoring and data visualisation.

EXISTING CLIENT SOLUTIONS:

- Waste Water Treatment
- Oil Tanking & Storage
- Smart Cities & Municipalities
- Waste, Recycling & Composting
- Animal Processing
- Pulp & Paper
- Refineries

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Unlock the power of your environmental data with ease and flexibility

Ortelium collects, visualises and analyses data from IoT and human sources. It provides intelligence on the impact of past, current and future events, for smarter decision-making right now.

Our platform allows you to combine, streamline and cross-reference different data channels, to establish a more meaningful picture of the environmental situation.

Using Ortelium's range of analytical tools, you can identify trends and patterns in your data.

With a series of highly specialised but ready-to-use modules, Ortelium's true power lies in its adaptability. Simply select the combination of functionality you need, or ask us to develop a customised atlas to meet your unique operational goals.



We are happy to receive your inquiries via sales@olfasense.com!



Ortelium - case studies

Ortelium - it doesn't stop here

Vopak Terminal Europoort is one of the biggest petroleum storage and trans-shipment facilities in the heavily populated Port of Rotterdam area. Oil gets loaded from the tankers to the storage tanks or vice versa, which results in the emission of high concentrations of odour that disperse into the surrounding residential areas.

Better grip on this dispersion is needed to avoid complaints, as these may result in temporary working restrictions, fines or in the worst case permit withdrawal.

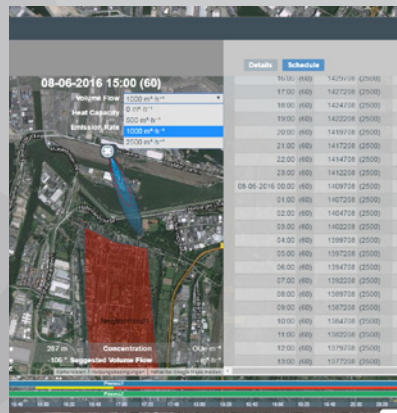
By inserting process parameters of the operations into Ortelium, the system provides data intelligence on how the odour disperses into the environment. In case concentrations in residential areas are too high, Ortelium provides recommendations on how to adapt pumping speeds to reduce or even prevent the alert situation. Not only for the current point of time but also for the hours to come.

As a result, pumping processes keep running efficiently while complaints are avoided.

The council of Kelsterbach and the operator of the potential source – the local municipal wastewater treatment plant (Stadtentwässerung Frankfurt am Main) – received around 130 complaints in six weeks.

The Ortelium application has helped to identify the odour source by integrating the citizens directly into the odour management process.

Odours can now be communicated directly online and via Smartphone. All complaints are verified and answered by Olfasense experts.



OTHER IMAGINABLE ATLASES:

- Renewable energy monitoring
- Hospital hygiene monitoring
- Allergy mapping
- Air quality monitoring
- Mapping of parking spaces and eCar charging stations
- and many more

Discover Ortelium's existing client solutions and modules on www.ortelium.com and get in contact with us right now to schedule your customized web demo.

FACTS:

- Online planning of inspection points, routes and grids
- Management of odours and odour sources
- Creation of pre-defined and customised inspection schedules
- Assessor management and time-scheduling featuring appointment confirmation and reminder e-mails
- Digital data collection via user-friendly smartphone app
- GPS logging for exact assessor positioning
- Exact time recording
- Instant availability of results
- Automated calculation
- Detailed data views
- Customer access to validated results for easy reporting
- Excel export function

OPTIONAL DATA FEED INTO ORTELIUM:

OFIM data can be automatically fed into the environmental data intelligence application Ortelium, which allows to combine your results with other relevant data channels, such as odour complaints from citizens, meteo station readings, sensors, location of potential odour sources, etc. - so that a more complete picture of the odour situation can be established.

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SOFTWARE PRODUCTS

OFIM according to EN 16841-1

Online tool for field inspections according to EN 16841-1

The Online Field Inspection Manager (OFIM) was developed especially for the needs of odour laboratories performing field inspection projects.

So you'll be pleased to know that it's fully compliant with the EN 16841-1 guideline and serves as a central platform for your field inspection projects.

Combining an online web application for

management of inspection projects and a user-friendly smartphone application for digital data collection, it ensures up-to-date and instantly available inspection results - without the need for a paper-based protocol.

And, better still, GPS location checks and exact time recording inspections make sure that your assessors are at the right location at the right time.



We are happy to receive your inquiries via sales@olfasense.com!

GC-IMS instruments

PROVEN APPLICATIONS - ENVIRONMENTAL

- Exhaust air monitoring at WWTP
- Siloxanes in landfill gas
- Filter efficiency in biogas plants
- Benzene Toluene Xylene (BTX) in air and water
- Toluol-2,4-diisocyanat in air
- Dimethyl sulfate in air

PROVEN APPLICATIONS - P&M TESTING

- Main compound detection/quantification within aroma oil
- Differentiation of various tobacco formulations and key marker assignments
- Bad smell from sweat under arms due to thiols
- VOC detection from PET bottled water
- Detection of off-smell in cacao beans from drying process
- Product authentication with regards to perfume twins/dupes
- Outgasing from indoor surfaces e.g. car components/room interiors

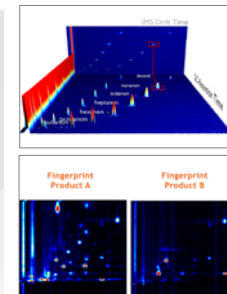
Extremely sensitive and fast molecular analysis

Gas chromatography coupled with ion-mobility spectrometry (GC-IMS) combines the high selectivity of chromatographic separation with the extraordinary sensitivity of an IMS.

It's a very accurate and sensitive method of quantitative analysis, with a detection limit of molecules in the lower ppb or $\mu\text{g/L}$ range.

It's also very fast. Substances including ketones, aldehydes, alcohols, amines and phosphor organics, as well as halogenated compounds, can all be detected within a couple of minutes.




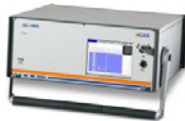
GC-IMS technology addresses various application fields, including Food & Flavour, Industry & Process-Control as well as Medical Research.





GC-IMS instruments

Application Data

	<p>FlavourSpec®</p> <p>GC-IMS for the detection of volatile organic compounds in food and beverages</p>	<ul style="list-style-type: none"> • Control of storage conditions • Food freshness • Control of production process • Process optimisation • Flavour evaluation and flavour stability • Test of raw materials • Product authentication
	<p>BreathSpec®</p> <p>Sensitive analyser for metabolic marker substances in human breath</p>	<ul style="list-style-type: none"> • Monitoring of work related exposures to hazardous substances • Detection and/or monitoring of diseases • Control of drug decomposition (pharmaceuticals)
	<p>Analytical - Ion Mobility Spectrometer</p> <p>Sensitive detection of gaseous VOCs</p>	<ul style="list-style-type: none"> • Quality control • Residual solvents • Authentication • Alternative GC detector
	<p>Gas Chromatograph Ion Mobility Spectrometer - VOC trace detection in complex matrices</p> <p>> GC-IMS-ODOR odorant detection in natural gas</p> <p>> GC-IMS-Silox siloxane detection in alternative energy recovery plants (biogas, sewage)</p>	<ul style="list-style-type: none"> • Quality control • Process control • Residual solvents • Product or ingredients authentication • Research & development

If you have your own ideas about how GC-IMS technology could support you in your specific use case, we'd love to hear from you.



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