WÖHLER

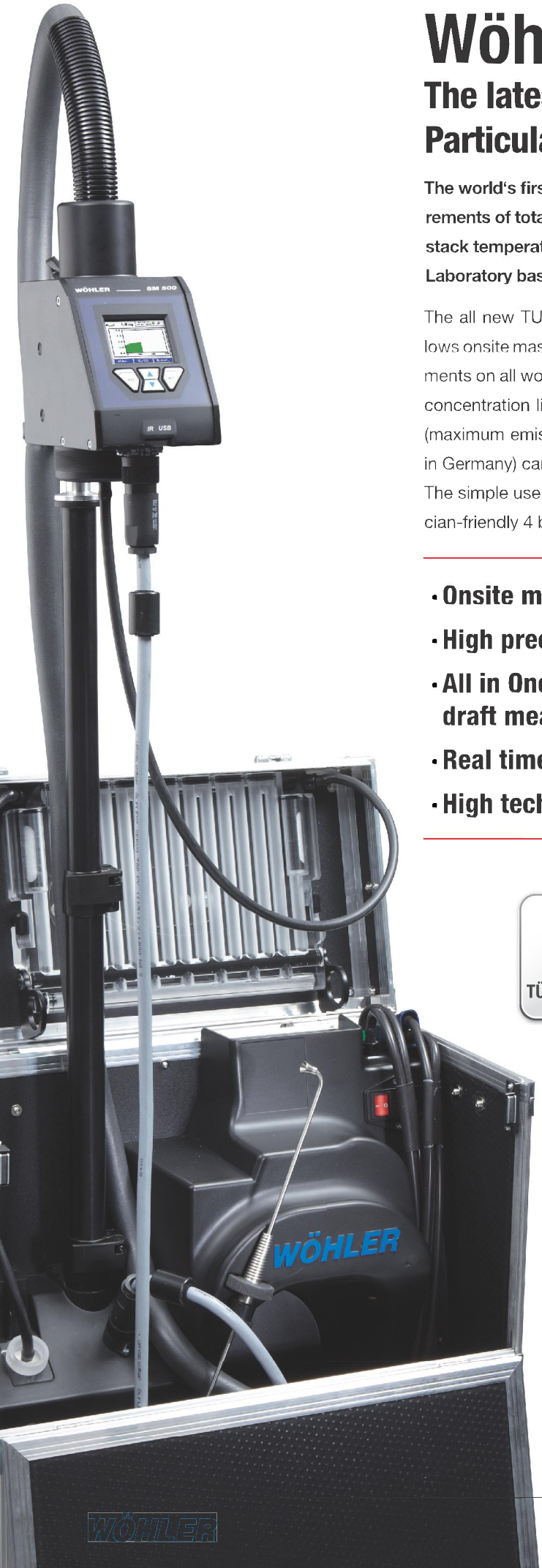
The Measure of Technology

TÜV-CERTIFIED

Wöhler SM 500 Suspended Particulate Analyser

EVEN THE FINEST CANNOT ESCAPE.

Made in Germany



Wöhler SM 500

The latest innovation in total Suspended Particulate Matter (SPM) measurement

The world's first multi-functional analyser for onsite mass concentration measurements of total suspended particulate matter in flue gas, O_2 and CO, draft and stack temperature. The Wöhler SM 500 analyser will give you immediate readings. Laboratory based analysis becomes superfluous.

The all new TUV certified technology allows onsite mass concentration measurements on all wood fired appliances. Mass concentration limits as low as 20 mg/m³ (maximum emission rate of wood stoves in Germany) can accurately be verified. The simple user interface and the technician-friendly 4 button key pad make your work fast and accurate. The brilliant full color LED display shows the mass concentration and all combustion values on one screen. After the sampling process the instrument automatically calculates all results to allow compliance testing for solid fuels.

- **Onsite measurement and verification**
- **High precision digital mass scale**
- **All in One – O_2, CO, temperature and draft measurement inclusive**
- **Real time graphic function display**
- **High technology at an affordable price**

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Onsite measurement and verification

USB data transfer

Many advantages in just one instrument

Onsite measurement and verification

Simple as that: adjust the display unit to your working level, measure, take results. All aspects of the instrument are user friendly designed. The Wöhler SM 500 accomplishes everything for you.

All in One: O_2, CO, temperature and draft measurement inclusive

The basic instrument kit comes with a fully featured, integrated flue gas analyser for O_2, CO, stack temperature and draft to give a complete analysis and verification onsite.

High precision digital mass scale

With the Wöhler SM 500 Suspended Particulate Analyser you can verify for the first time onsite mass concentration limits as low as 20 mg/m³ according to German environmental protection standards (1. BImSchV). The results of the measurements and verifications can be displayed or printed on the portable Wöhler TD 600 Thermal Fast Printer.

Real time graphic function display

The simple menu is intuitive by design. The technician friendly 4 button key pad allows real time graphic function display and user selectable readings. The brilliant full color LED display is even visible in a dark environment.

Data transfer

All measurement data and online readings can be transferred to a computer by USB connection. The Wöhler SM 500 computer software package allows extensive data analysis and display.

Wöhler SM 500 Accessories

Pcs.	Analyser	Order no.
	Wöhler SM 500 Suspended Particulate Analyser with high precision digital mass scale unit, heated probe and hose assembly, flue gas analysis unit including O2, CO, temperature and draft, probe and hose assembly for flue gas analysis, pack with 10 filter cartridges	8900

Pcs.	Accessories	Order no.
	Backpack Carry-On for Wöhler SM 500 case	8911

Pcs.	Printer	Order no.
	Wöhler TD 600 Thermal Printer Infrared printer with 1 roll thermal paper and four batteries	4130
	Thermal Paper 57 mm width, 10 rolls for thermal printer Wöhler TD 600	4145

Pcs.	Consumables	Order no.
	10 Filter Cartridges for Wöhler SM 500 in exchange of used cartridges	8917
	10 Filter Cartridges for Wöhler SM 500	8916
	Coarse filter vlies for Wöhler SM 500 10 pcs. per unit	9503
	Cleaning tool Wöhler SM 500 for probe and mass scale unit	8909
	Software package Wöhler SM 500 with USB cable	8914

Technical Data

Suspended Particulate Matter concentration / Filter load (m_{StF}) in 15 min:

Reading:	Filter load in mg at 75°C filter temperature
Sensor technology:	real time digital mass scale
Range:	0,0 to 45,0 mg (equals 0,0 mg/m³ to 1.000,0 mg/m³ in flue gas)
Accuracy:	± 0,3 mg

Sample rate (Vol_s):

Reading:	standard liter per minute (slpm)
Sensor technology:	Differential pressure
Range:	4,5 $L_{i.N.}$/min and 3,0 $L_{i.N.}$/min
Accuracy:	± 5 %

Oxygen (O_2) concentration in flue gas :

Reading:	% of flue gas volume (dry conditions)
Sensor technology:	electrochemical sensor
Range:	0,0 to 21,0 %
Accuracy:	± 0,3 % according to VDI 4206 Blatt 1

Carbone monoxide (CO_v) in flue gas:

Reading:	ppm of flue gas volume (dry conditions)
Sensor technology:	electrochemical sensor
Range:	0 to 100.000 ppm, resolution 1 ppm (< 32.000 ppm), 10 ppm
Accuracy:	± 100 ppm (< 1.000 ppm), 10 % of reading according to VDI 4206 Blatt 1

Draft (PD):

Reading:	Pascal
Sensor technology:	Semiconductor
Range:	0,00 to ± 110,00 hPa, resolution 1 Pa
Accuracy:	3 Pa (<100 Pa), 3 % of reading

Flue gas temperature (TA):

Reading:	°C
Sensor technology:	Thermocouple (NiCr-Ni)
Range:	-20,0 °C to 800,0 °C, resolution 0,1 °C
Accuracy:	according to VDI 4206 Blatt 1

Calculated Values:

m_{St}:	Total suspended particulate matter mass concentration in flue gas refered to the adjustable oxygen reference value in mg/m³
Vol:	Sample volume in SL
O_2:	O_2 concentration in % given as 15 min average value
CO_v:	CO concentration in ppm given as 15 min average value
CO_n:	CO air free concentration in ppm referred to the adjustable oxygen reference value
Power Supply:	230 V, 50 Hz, max. 1.200 W
Storage temperature:	-20 °C to +50 °C
Work temperature:	+5 °C to 40 °C
Weight:	approx. 15 kg
Dimensions:	480 x 240 x 550 mm

WÖHLER

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