

# WÖHLER



## POWERFULLY TOUGH

### Wöhler A 550 INDUSTRIAL

Portable Flue Gas Emissions Analyzer with superior accuracy

*The Measure of Technology*



Made in  
Germany



INDUSTRIAL



TÜV  
APPROVED

CO

100,000  
ppm

NOx  
SOx



ROBUST  
HOUSING



7"  
TOUCHSCREEN

PC

SOFTWARE



USB



BLUETOOTH®

12

MONTH  
WARRANTY

# Wohler A 550 INDUSTRIAL

## Portable Flue Gas Emissions Analyzer with Capitalize Superior and Accuracy

As tough as cast iron, but as easy to operate as a smartphone – that’s what Wohler’s new Flue Gas Emissions Analyzer feels like in your hand. A tap of your finger on the Wohler A 550 INDUSTRIAL is all that is required to perform a complete analysis and inspection of boilers and burners. The Flue Gas Emissions Analyzer is designed to be used in tough industrial heat processes. The in-stack stainless steel sinter-filter probe protects the analyzer against heavy dust loads.

The new Wohler A 550 Industrial is our most advanced analyzer ever. The individual functions can be launched as intuitively as using a smartphone via the large 7" color touchscreen. And the brightly lit monitor can be read anywhere. The large screen, the clear arrangement and the graphical presentation of readings allow excellent readability.

Acquiring measurement values is as easy as could be. The analyzer is equipped with magnets, so you can attach it to any magnetic objects to work hands-free. The probe is equipped with a start/stop button to run or hold measurement readings. There are a number of interfaces available to transfer data: USB, Infrared and

Bluetooth®. And with the Wohler TD 100 Fast Thermal Printer you can print out the readings on-site.

The new battery-driven peltier cooler ensures both accurate NOx and SOx readings.

The optional stainless steel sinter-filter protects the device against industrial dust loads.

A broad variety of different sample probe lengths offers the opportunity to take emission measurements in difficult-to-reach locations.

To measure flue gas velocity and flow rate the Wohler A 550 INDUSTRIAL is equipped with a dual port digital pressure sensor. S-Tubes and Prandl-probes are available in different length and dimensions.

## ADVANTAGES

- 7" color-touchscreen as intuitive to use as a smartphone
- NOx and SOx emissions measurement with 0.1 ppm resolution
- In-stack Sinter-filter probe for dust protection
- Battery-driven peltier cooler device - more than 4 h off-grid operation time
- High-power sample pump for differential pressures up to 300 mbar
- Built-in logger function with user selectable configuration

## TECHNICAL DATA

### Oxygen concentration (O<sub>2</sub>) in flue gas

Display ..... Volume % referenced to dry flue gas  
Measurement principle ..... Electrochemical sensor  
Range ..... 0.0 – 21.0 vol. %  
Accuracy ..... ± 0.3 vol. %

### Carbon monoxide (CO 100,000) in flue gas

Display ..... Volume ppm referenced to dry flue gas  
Measurement principle ..... Electrochemical sensor  
Range ..... 0 – 100,000 vol. ppm; resolution 1 vol. ppm  
Accuracy ..... ± 100 vol. ppm (< 1,000 vol. ppm),  
otherwise 10 % of reading (with H<sub>2</sub> < 5 % of reading)

### Nitric oxide concentration (NO) in flue gas

Display ..... Volume ppm referenced to dry flue gas  
Measurement principle ..... Electrochemical sensor  
Range ..... 0 – 3,000 vol. ppm (continuously up to 1,000);  
resolution 0.1 vol. ppm (< 1,000 vol. ppm),  
otherwise 1 vol. ppm  
Accuracy ..... ± 5 vol. ppm (< 100 vol. ppm), otherwise 5 % of reading

### Nitrogen dioxide concentration (NO<sub>2</sub>) in flue gas

Display ..... Volume ppm referenced to dry flue gas  
Measurement principle ..... Electrochemical sensor  
Range ..... 0 – 1,000 vol. ppm (continuously up to 200 vol. ppm);  
resolution 0.1 vol. ppm  
Accuracy ..... ± 5 vol. ppm (< 100 ppm), otherwise 5 % of reading

### Sulfur dioxide concentration (SO<sub>2</sub>) in flue gas

Display ..... Volume ppm referenced to dry flue gas  
Measurement principle ..... Electrochemical sensor  
Range ..... 0 – 5,000 vol. ppm;  
resolution 0.1 vol. ppm (< 1,000 vol. ppm),  
otherwise 1 vol. ppm  
Accuracy ..... ± 10 vol. ppm (< 200 vol. ppm), otherwise 5 % of reading

### Differential pressure (P<sub>d</sub>)

Display ..... inWC  
Measurement principle ..... Semi-conductor diaphragm  
Range ..... 0.00 to ± 44.16 inWC; resolution 0.004 inWC  
Accuracy ..... 0.008 inWC (< 0.16 inWC), otherwise 5 % of reading

### Flue gas temperature (T<sub>g</sub>)

Display ..... °F  
Measurement principle ..... Thermocouple (NiCr-Ni) (NiCr-Ni)  
Range ..... - 4 °F to 1,472 °F; resolution 32.18 °F  
Accuracy ..... 32-271.4 °F: ± 35.6 °F  
271.4-1,472 °F: ± 1.5 % of reading

### Combustion air temperature (T<sub>a</sub>)

Display ..... °F  
Measurement principle ..... Thermocouple (NiCr-Ni)  
Range ..... - 4 °F to 212 °F; resolution 32.2 °F  
Accuracy ..... ± 33.8 °F

**Power supply** ..... Lithium-Ion, rechargeable battery 3.7 V, 5800 mAh,  
charges via USB

**Battery operating time** ..... Approx. 7 h (depends on operating status and display  
illumination)

**Storage temperature** ..... 4 °F to + 122 °F

**Operating temperature** ..... + 41 – 104 °F to maintain stated accuracy

**Weight** ..... 2.75 lbs

**Dimensions** ..... 8.7" x 6.3" x 2.2" (without probe)

**Length of cable-hose** ..... 67"

## ✂ Applications

- Expandable with up to 5 sensors
- For measurements: NO, NO<sub>2</sub>, SO<sub>2</sub>
- Probe for a variety of measurement tasks
- In-stack sinter-filter for heavy dust loaded samples

## ⚙ Functionality

- Simple to use: Switch on – read off – done
- Large, color touchscreen: Displays up to 14 measurement and calculation values
- Intuitive to operate via on-screen keyboard
- Calibrate in the flue gas pipe via a fresh air pump
- Graphic hot spot search

## 🔧 Safety / Reliability

- Effective dust and condensate protection
- 4-filter technology – easily accessible
- Analyzer and sensor diagnostics
- Sensor replacement – user-friendly
- Rechargeable battery operating time: more than 7 h with Lithium Ion power
- Hose assembly – robust and flexible

## 📁 Data management

- 1,000 measurement records
- Data transfer via USB, Bluetooth® or Infrared

## ❗ Approvals

- DIN EN 50379 Part 2



**Battery-driven peltier cooler** removes condensate from the sample gas for accurate NOx and SOx measurements



**Sinter-filter probe** removes dust (> 20 micron) from the sample gas to protect the analyzer against heavy dust loads

<sup>1)</sup> Except thermocouple, rechargeable battery and special sensors; for further information please read our warranty guidelines.

# Kit and Accessories

Wohler A 550 INDUSTRIAL	Qty
<b>Wohler A 550 INDUSTRIAL</b> with O <sub>2</sub> , NO, CO <sub>High</sub> , NO <sub>2</sub> , SO <sub>2</sub> , Bluetooth®, USB- and IR, Hose 10 ft. and modular Flue Gas Probe 3 ft. with sinter filter, Ambient Temperature Probe (plug), USB-Charger with Micro-USB-Cable, Li-Ionen Battery, 1 Waterstopp Filter, 1 Coarse Filter, 25 Wadding Filters, Plastic Case	
<b>P/N 5996</b>	

Peltier cooler for NOx and SOx	Qty
<b>USB Peltier Cooler for Wohler A 550</b> with battery and USB cable 10 ft. Portable Peltier Cooler with external mobile battery to remove condensate. Operational time up to 5h. To be used for accurate SO <sub>2</sub> or NO <sub>2</sub> flue gas analysis. Comes with: Wohler USB Peltier Cooler A 550, 10.000 mAh mobile battery pack, 10 ft. USB connection cable, Angle Adapter Peltier Cooler	
<b>P/N 4435</b>	

Probe with sinter-filter 20 micron	Qty
<b>Flue Gas Probe 3 ft. with filter holder</b> and stainless steel Sinter-filter to be used with Wohler A 550 INDUSTRIAL Flue Gas Emissions Analyzer	
<b>P/N 4189</b>	

<b>Stainless steel Sinter-filter</b> for Wohler A 550 INDUSTRIAL, replacement filter	<b>P/N 4187</b>
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Probes	Qty
<b>Wohler A 550 Gas Probe</b> 1.5 ft.	<b>P/N 9614</b>
<b>Wohler A 550 Gas Probe</b> 1 ft.	<b>P/N 9622</b>
<b>Flue Gas Probe Wohler A 550</b> 3 ft., with protective cap	<b>P/N 9695</b>
<b>Wohler A 550 Air Temperature Probe</b> 1 ft., with 1,7 m cable	<b>P/N 5511</b>
<b>Wohler Velocity Probe Type S</b> for Wohler A 550, to measure gas velocity	<b>P/N 5579</b>
<b>Pitot Tube</b> 3 ft., .2" diameter	<b>P/N 9489</b>
<b>Pitot Tube</b> 1.5 ft., .2" diameter	<b>P/N 9488</b>

Cones	Qty
<b>Magnetic Holder</b> for air temperature probes to stabilize the air temperature probe	<b>P/N 6142</b>

<b>Clamping Cone</b> for probes .3" diameter stainless steel, to stabilize the gas probe in the flue pipe	<b>P/N 2494</b>
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<b>PTFE Cone</b> for probes .3" diameter to stabilize air temperature probes in openings .3"-.5" diameter	<b>P/N 2463</b>
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Printer	Qty
<b>Wohler TD 100 Thermal Fast Printer</b> Infrared printer with 1 roll thermal paper and four batteries	<b>P/N 4160</b>

<b>Thermal Paper</b> 2" wide, 10 rolls for thermal printer Wohler TD 100 / TD 600	<b>P/N 4145</b>
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PC-Software	Qty
<b>PC-Software Wohler A 550 on CD</b> Languages EN, FR, IT, CZ, NL, CN for online measurements, diagram functions and export to MS Excel	<b>P/N 4428</b>

Consumables	Qty
<b>Water Stop Filters</b> pack with 3 pieces for Wohler A 400 / A 500 / A 600	<b>P/N 9621</b>

<b>Coarse Filters</b> pack with 5 pieces for Wohler A 500 / A 600	<b>P/N 9632</b>
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<b>Wadding Filters</b> pack with 150 pieces for Wohler A 400 / A 500 / A 600	<b>P/N 4288</b>
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## WÖHLER

Wöhler USA Inc.

5 Hutchinson Drive · Danvers, MA 01923

Phone: +1 978 750 9876 · Fax: +1 978 750 9799

Email: info@wohlerusa.com

www.wohlerusa.com