

Manual Wöhler A 450 PC Software

Wöhler A 450 Data Management

File Settings Instrument Info

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Customer selection:
 Customers
 Rudi Ruß
 Willi Wichtig

Total: 1
Marked: 0

Send Receive

WÖHLER

Instrument information Customer data **Combustion test** Additional measurements 4 Pa test Logger measurement

Combustion test:
Date: 14.05.2013
Time: 13:30
O₂: 11.5 %
Lambda: 2.21
CO₂: 7.0 %
Air temp.: 28.6 °C
Flue temp.: 102.6 °C
QS: 5.8 %
Efficiency: -- %
Condensate: ---- kg/m³
Dev point: 40.9 °C
Draft: 3.4 Pa

CO: 175 ppm
CO c: 387 ppm
NO: 0 ppm
NO c: - ppm
NO₂: - ppm
NO₂ c: - ppm
NOx: 0 ppm
NOx c: 0 ppm
SO₂: - ppm
SO₂ c: - ppm
H₂: - ppm
GE: -.....

Device data:
Boiler temp.: 78.9 °C
1st soot num.: 3.0
2nd soot num.: 2.0
3rd soot num.: 1.0
Avg. soot num.: 2.0
pH value cond.: 1.2
Oil derivatives: Found
Load state: Full

Create report

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1 Using the software

This operating manual describes how to use the program "Wöhler A 450 Data Management".

It is used to evaluate and manage the measurement data from the Wöhler A 450. It offers an online measurement option as well as the possibility to export data in graphic format to Excel.

2 PC system requirements

A PC is required with one of the following operating systems:

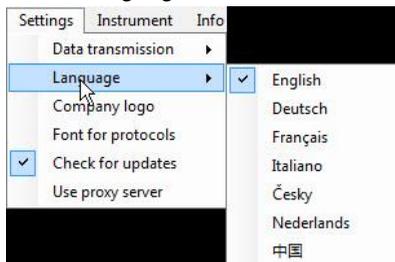
- Microsoft Windows 7
- Microsoft Windows 8
- Microsoft Windows 10

In addition, Microsoft .net Framework Version 4.5 must be installed. This is normally a component of the Windows operating system; however, it can also be downloaded for free from the Microsoft website and installed later. An active Internet connection is required if you wish to use the update function of the program.

- A registration window is displayed when you first launch the program in which you are required to enter registration details. Please enter your Wöhler customer number in the field at the top.

Fig. 1: Registration

Language selection



- To select your desired language, click Settings>Language>English

Fig. 2: Language selection

3 Create a customer

The main screen is displayed when the software is launched:

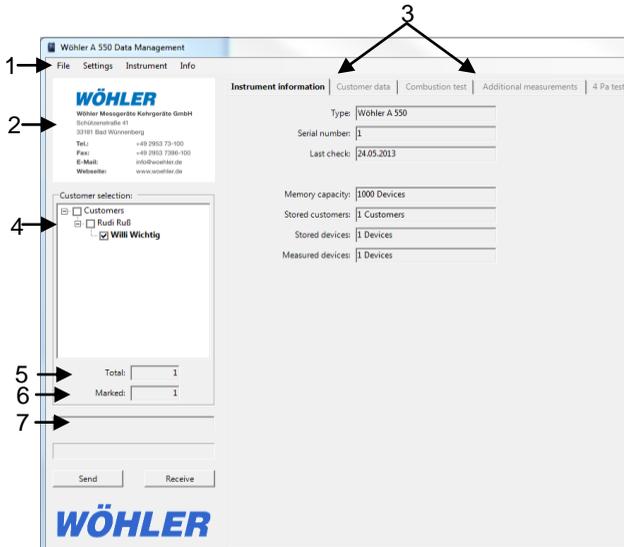


Fig. 3: Main Screen

	Function
1	Menu bar
2	Company logo (see Chapter 4.2)
3	Tabbed pages
4	Customer overview (management and create new customer, see next page)
5	Number of customers created
6	Number of marked customers
7	Loading progress bar
Buttons Send/Receive	Data transmissions to and from the Wöhler Flue Gas Analyzer (the button "Send" is only available when at least one customer has been selected).

Create a customer

- To create a new customer right-click "Customer" in the main screen.

A shortcut menu appears with two options, "New customer" and "Delete all customers"

New customer



Customer name: New customer
Customer num.:
Device: New device
Device num.: 1

OK Cancel

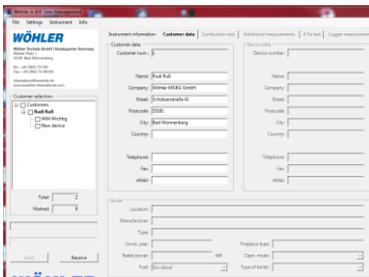
Fig. 4: Create a customer



NOTE!

It is possible to edit the customer name at a later date; to do so, right-click the created customer you wish to edit. In the window that opens, select the option "Rename customer".

Customer data



Customer data

Name: Paul Kull
Company: Wöhler M&S GmbH
Street: Schützenstraße 42
House no.: 0262
City: Berlin-Neukölln
Country:
Telephone:
Fax:
eMail:

Device:
Location:
Manufacturer:
Type:
Serial year:
Production year:
Serial number:
Clear model:
Serial number:

Fig. 5: Enter customer data

- Right-click the customer name. A window opens with the following options, "New device", "Rename customer" and "Delete customer"
- Select "New device". The Customer data window opens.
- Enter the desired customer data.

The screenshot shows the 'WÖHLER' software interface with the 'Customer data' and 'Device data' sections active. The 'Customer data' section includes fields for Name, Company, Street, Postalcode, City, Country, Telephone, Fax, and Email. The 'Device data' section includes fields for Name, Company, Street, Postalcode, City, Country, Telephone, Fax, and Email. There are also sections for 'Basic' and 'Additional measurements' data.

Fig. 6: Enter device data

- Click the device. The "Device data" box is activated.
- Enter the relevant device data.
- Click File > Save, and save the customer data as an XML-file.
- To load customer data after quitting and re-launching the software, select File > Open.



NOTE!

At the beginning of a working day it is possible to conveniently enter on a PC customer data of the systems to be measured, and then load the information onto the flue gas analyzer. At the end of the day simply transmit the customer data back to the PC for effortless evaluation.

Delete all customers

- If you wish to delete all created customers from the software together with their allocated data, right-click "Customers" on the main screen and select "Delete all customers".

4 Menu guidance

4.1 "File" menu

New

After you click **File > New** a window opens with the question: "Do you really want to delete all customer data?"

- Click "OK" to confirm, if you wish to delete all created customer data sets.
- You can then create new customer data sets as described in step 4.
- Open a file containing measurement data that you have previously stored on your computer.

"Open"

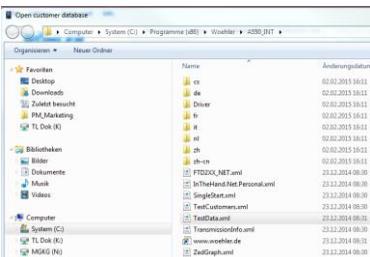


Fig. 7: Open a file

Add

- Add more data to the opened file.

Save

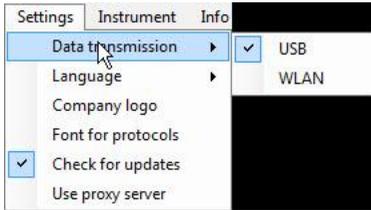
- Save the file on your computer.

Quit

- Quit the program.

4.2 "Settings" menu

Data transmission



- Select your desired mode of transmission (USB or WLAN).

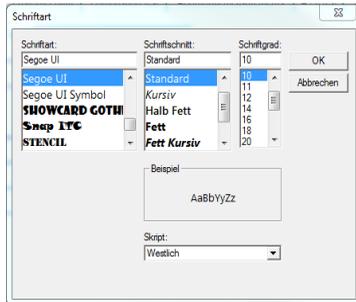
Company logo

- Click Settings > Company logo.

You can insert your own company's logo if it is stored as a graphic file on your computer. The logo is then displayed on the top left of each screen and top right on each printed report. Suitable file formats are .bmp, .jpg and .gif files.

The logo is retained when you quit the program and displayed when the program is launched again.

Font for protocols



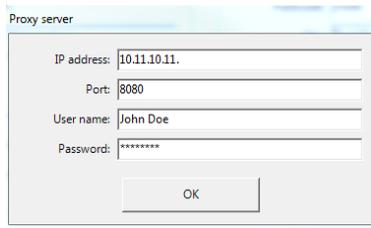
- Select the font type and size for the report.

Check for updates

- Select this option to allow the program to automatically install the latest version of the software as soon as it becomes available. The automatic update function requires an active Internet connection.

If the option is activated a checkmark will appear beside "Check for updates".

Use proxy server



Activate this function before a software update only if you work from within a company network that uses a proxy server.

When you click the submenu item "Use proxy server" the window opposite opens.

- Request the data required to be entered from your IT department.
- Enter the data and click "OK" to confirm.

Fig. 8: Input when using a proxy server

4.3 Menu "Instrument"

4.3.1 Online measurement

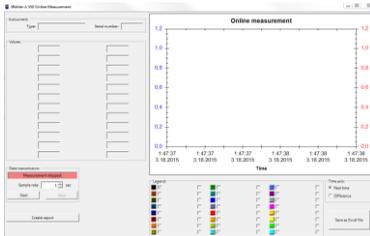


Fig. 9: Screen view of "online measurement"

When taking online measurements the measurement values are transmitted immediately from the Wöhler A 450 to the PC. To do so, the device must be in normal measurement mode.

- Select the desired measurement interval in the "Sample rate" box.
- Connect the flue gas analyzer to the computer via a USB cable or WLAN, see Chapter 5.
- To start measurements click the "Start" button. Click the "Stop" button to stop measurements.

Create report

To create a measurement report in PDF format click the "Create report" button. It is possible to insert this report into a customer report at a later date, as required.

Legend

The user is able to select which value should be displayed as a graph. The graph is displayed in the color listed next to the value.

Furthermore, it is possible for the user to select the graph axis on which the data is displayed by selecting the corresponding check box before or after the value.



NOTE!

It is practical to present the graphs on different axes if the variables of the displayed values differ widely. It would be difficult to recognize fluctuations if widely different values were shown on the same axis.

4.3.2 Firmware update Wöhler A 450

The software makes it possible for you to load the latest firmware version onto your Wöhler A 450 Flue Gas Analyzer. To do so, proceed as follows:

- Connect the Wöhler A 450 Flue Gas Analyzer to your PC via the USB cable and then switch on the device.



NOTE!

It is only possible to update the software via a USB connection. It is not possible to update the software via Bluetooth.

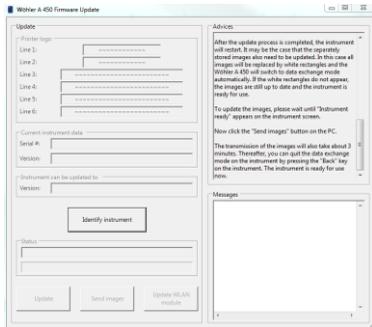


Fig. 10: Submenu "Firmware update"

- Proceed as follows to update the software: on the menu bar click Instrument > Firmware Update Wöhler A 450.
- Follow the instructions provided in the "Advices" box.

4.4 "Info" menu

4.4.1 Submenu item "Update"

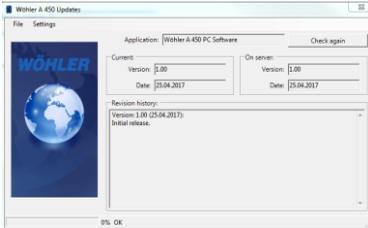


Fig. 11: Submenu "Firmware update"

To view the software version and date of last update, click Info on the menu bar then Update.

To download the latest version of the software click the button "Check for updates".

- Click the "Check for updates" button to check for and, if available, download a later version of the software.
- It is possible to activate the function "Check for updates automatically" via the submenu item "Settings" shown in the opposite figure.



NOTE!

The update function requires an active Internet connection. It is not necessary to manually download updates if the function "Check for updates" is activated.

5 Data transmission

5.1 Data transmission via USB

Data exchange

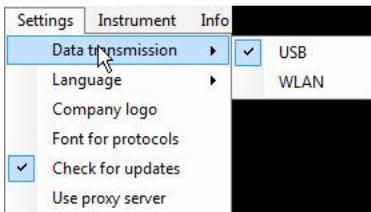


Fig. 12: Data transmission via USB

- Connect the Wöhler A 450 to your PC via the USB cable and then switch on the device.

Press the "Data exchange" button to halt the core flow search and activate the data exchange mode. The message "Device ready" is shown in the display.

- To select data transmission via USB click Settings > Data transmission > USB



Fig. 13: Mark all customer files to be transmitted

- In the software, mark all customer files to be transmitted.
- Click the "Send" button to transmit the marked data from the computer to the flue gas analyzer.



NOTE!

All data previously stored on the device is deleted when data is transmitted from the PC to the flue gas analyzer.

- Click the "Receive" button to begin transmitting data from the flue gas analyzer to the PC.



NOTE!

When receiving measurement data the files containing previous measurements stored on the PC are overwritten. To prevent this, save the files containing existing measurements under a different file name.

The message "Data transmission successful" is displayed above the progress bar once the data has been transmitted; the number of files transmitted is displayed in a pop-up window.

5.2 Data transmission via WLAN

Data exchange

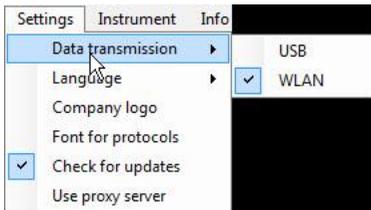


Fig. 14: Select Data transmission via Bluetooth

- Switch on the Wöhler A 450 Flue Gas Analyzer.

Press the "Data exchange" button to halt the core flow search and activate the data exchange mode. The message "Device ready" is shown in the display.

- To select data transmission via WLAN click Settings > Data transmission > WLAN.

- In the software, mark all customer files to be transmitted as described in 5.1.
- Click the "Send" button to transmit the marked data from the computer to the flue gas analyzer.
- In the window that now opens select the Wöhler A 450 and click OK to confirm your selection.



NOTE!

All data previously stored on the device is deleted when data is transmitted from the PC to the flue gas analyzer.

- Click the "Receive" button to begin transmitting data from the flue gas analyzer to the PC.



NOTE!

When receiving measurement data the files containing previous measurements stored on the PC are overwritten. To prevent this, save the files containing existing measurements under a different file name.

- In the window that opens select the Wöhler A 450 and click OK to confirm your selection.

The message "Data transmission successful" is displayed above the progress bar once the data has been transmitted; the number of risers transmitted is displayed in a pop-up window.

6 Evaluating measurements

Once transmitted it is possible on the PC to view, edit and print out the data determined Using the flue gas analyzer.

First mark a customer and then a riser (see Chapter 3).

If measurements have been stored, the tab of the corresponding type of measurement is activated.



NOTE!

The tabbed pages of measurement types that have no measurements stored are not available.

6.1 4 Pa-Test

The screenshot displays the 'Wöhler A 450 Data Management' software interface. The main window is titled 'Wöhler A 450 Data Management' and features a menu bar with 'File', 'Settings', 'Instrument', and 'Info'. Below the menu bar is the 'WÖHLER' logo and contact information for Wöhler Technik GmbH | Headquarter Germany, including the address 'Wöhler-Platz 1, 33109 Bad Wünnenberg', phone number '+49 2953 73-100', fax number '+49 2953 73-90100', and website 'international@woehler.de'. The 'Customer selection' panel on the left shows a tree view with 'Customers' expanded, listing 'Kunde 001' through 'Kunde 010'. 'Kunde 001' is selected, and its sub-items 'Anlage 001_001', 'Kunde 002', 'Kunde 003', 'Kunde 004', 'Kunde 005', 'Kunde 006', 'Kunde 007', 'Kunde 008', 'Kunde 009', and 'Kunde 010' are visible. The 'Total:' field shows '55' and the 'Marked:' field shows '6'. There are 'Send' and 'Receive' buttons at the bottom of this panel. The main area is divided into tabs: 'Instrument information', 'Customer data', 'Combustion test', 'Additional measurements', '4 Pa test', and 'Logger measurement'. The '4 Pa test' tab is active. It contains a 'Measurement data' section with fields for 'Date', 'Time', 'Maximum', 'Minimum', 'Difference', and 'Duration'. Below this is a 'Result' section with radio buttons for 'OK' and 'Not OK', and a 'Create report' button. The central part of the screen is a graph titled '4 Pa test' with a y-axis from 0.0 to 1.2 and an x-axis from 0.0 to 1.2. At the bottom of the graph area, there are radio buttons for 'Time axis' (Real time and Difference) and a 'Save as Excel file' button. The 'WÖHLER' logo is also present at the bottom left of the window.

Fig. 15: 4 Pa-Test

Evaluating measurements

Measurement data	The time and date of the measurement as well as special measurement data are displayed here.
Result	The evaluation of the measurement the user has taken using the flue gas analyzer is shown in the "Results" box.
Create report	To create a measurement report in PDF format click the "Create report" button. It is possible to insert this report into a customer report at a later date, as required.
Time axis	The user is able select if the time is shown on the time axis at which a given value is measured (real time) or the time that has elapsed since the measurement began (difference).
Save as Excel file	To save data to an Excel file, click the "Save as Excel file" button. In the window that opens select the path to where the file is to be saved.