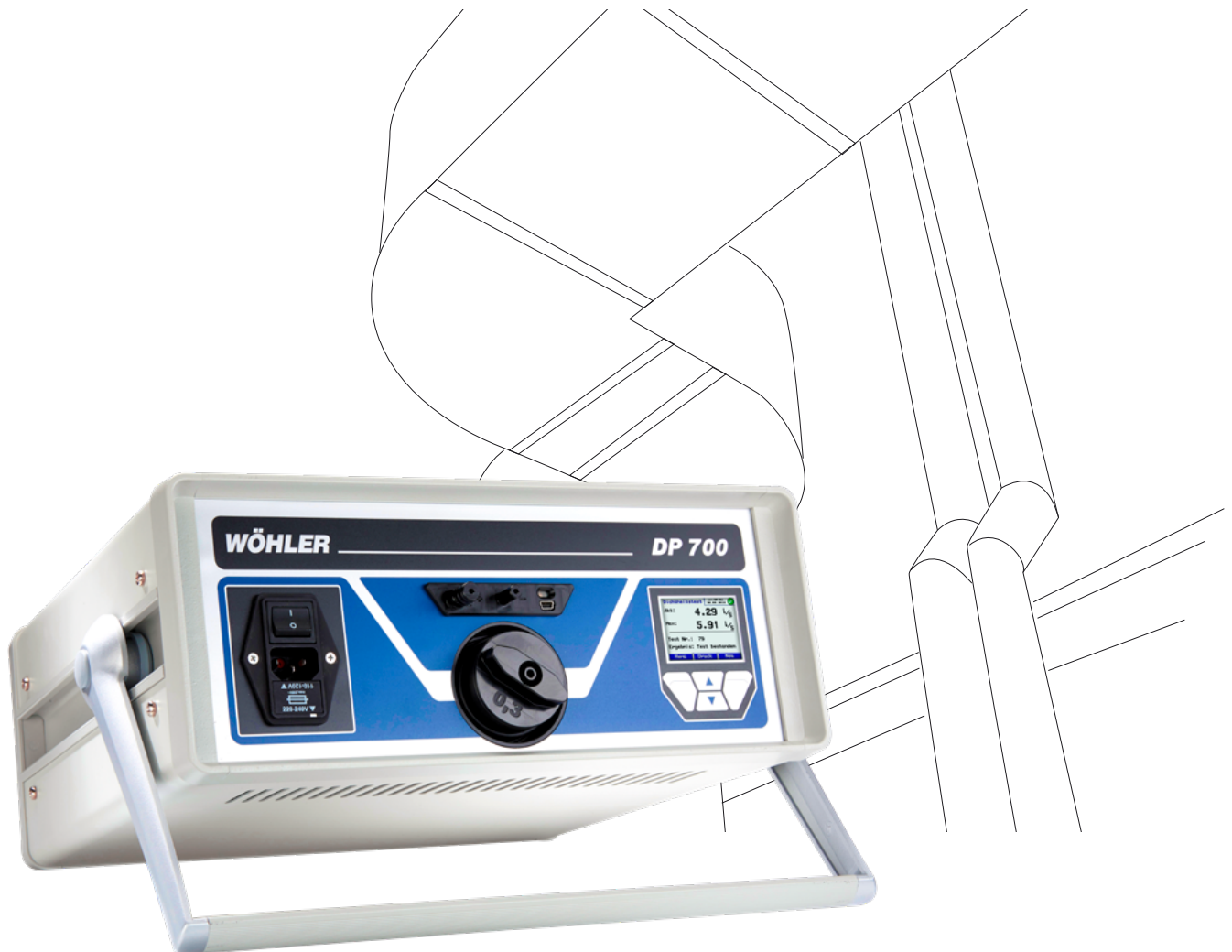


# WÖHLER



## WÖHLER DP 700 LEAKAGE TESTER

Leak testing of ventilation systems and components, containments.

*The Measure of Technology*



Made in  
Germany

# Wöhler DP 700 Leakage Tester

Just 3 entries to classify an air ductwork system or a component!

Depending on the time the tests are carried out the Wöhler DP 700 makes it possible to detect leakages in air ducts, components and appliances during production or prior to plant acceptance. In that way leakage tests with the Wöhler DP 700 make an important contribution to assuring quality during production and installation and, as a consequence, to the energy efficiency of air-conditioning and ventilation systems.

Ever-increasing demands are being placed on the energy efficiency of VAC systems. In that respect the leak-tightness of ductwork has a particularly important role to play. This aspect holds the greatest potential for saving energy, if it is possible to adapt the air flow to actual requirements in conjunction

with low leakage rates. In this respect, low device- and ductwork leakages will in future need to be taken into consideration a great deal more. Consequently, corresponding measurements will gain in importance.

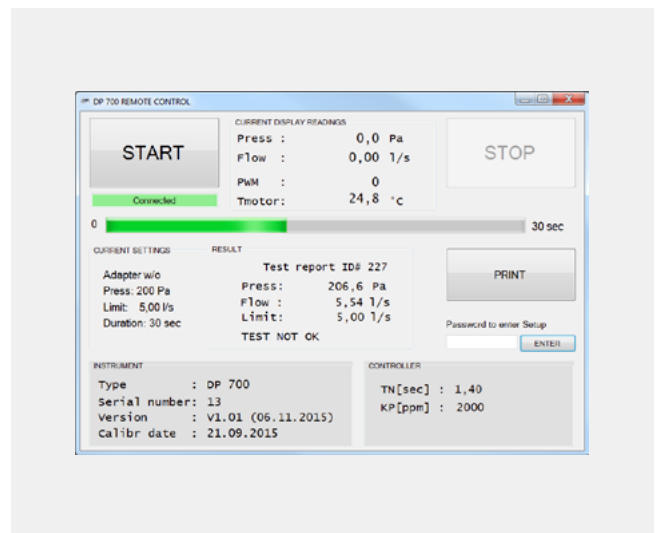
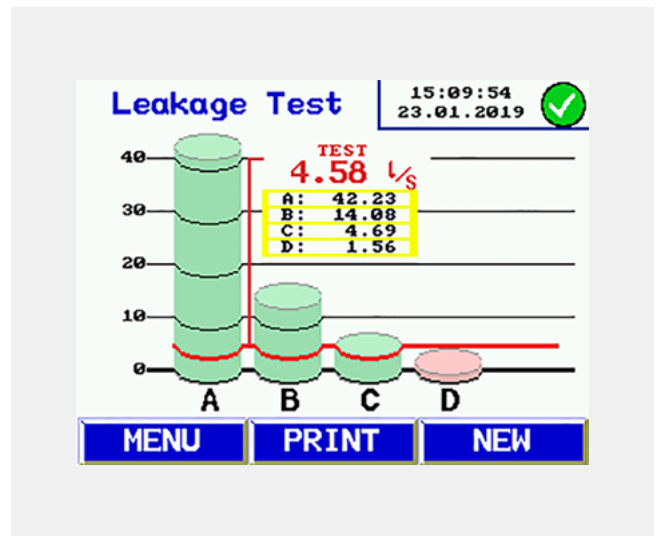


COLOR  
DISPLAY



EINFACHE  
BEDIENUNG

- ▶ Leakage tests in large air leakage ranges: From individual components through to complete systems consisting of several 100 m<sup>2</sup>
- ▶ Leakage tests on air-conditioning units, switchgear cabinets, climatic test cabinets, heat exchangers, cabinets for clean room technology and other housings
- ▶ Leakage testing of rooms
- ▶ On-site and laboratory measurements on structural components (e.g. OSB boards, windows)
- ▶ Can be integrated into the final inspection routine of series production runs including optional program remote control, (controlled from a PC via USB port)
- ▶ Suitable for tests of lower output performance (40 l/s), 110 V, 60 Hz



Leakage tests on several 100 m<sup>2</sup> of installed ductwork systems.

Quality control during series production of ducts and components.

Component test on small, individual components.

Printable graphic representation of results.

Wöhler DC Series PC software for data transmission and subsequent processing (optional documentation set).

Control the Wöhler DP 700 via USB connection with optional remote program control (e.g. to integrate in the final inspection routine of series production).

## ✂ Application

- ▶ Leakage tests in large air leakage ranges: From individual components through to complete systems consisting of several 100 m<sup>2</sup>
- ▶ Leakage tests on air-conditioning units, switchgear cabinets, climatic test cabinets, heat exchangers, cabinets for clean room technology and other housings
- ▶ Leakage testing of rooms
- ▶ On-site and laboratory measurements on structural components (e.g. OSB boards, windows)
- ▶ Can be integrated into the final inspection routine of series production runs including optional program remote control, (controlled from a PC via USB port)
- ▶ Suitable for tests of lower output performance (40 l/s), 110 V, 60 Hz

## ⚙ Functionality

- ▶ Leakage test according to DIN EN 12599 – to hand over air conditioning and ventilation systems
- ▶ Leakage test according to DIN EN 14134 – installation checks of residential ventilation systems
- ▶ Measurement of leakage class according to DIN EN 13779 of ventilation ductwork systems and components in accordance with the standards DIN EN 1507, DIN EN 12237, DIN EN 13403 and DIN EN 3180.
- ▶ Fulfills the high accuracy requirements specified in DIN EN 1751 and DIN EN 15727 for measurements on individual components ( $\pm 0.0009$  l/s)
- ▶ Includes adapter for measurement range  $< 0.3$  l/s
- ▶ Easy to operate with operator guidance or expert mode
- ▶ Automatic or manual measurement sequence
- ▶ Separate differential pressure measurement possible
- ▶ Measurement values in desired units, without manual conversion
- ▶ Prints measurement reports on-site with thermal printer (optional accessory)
- ▶ Practical set in 2 cases, easy to transport and store

## 📁 Data management

- ▶ Store up to 100 measurements
- ▶ Data stored permanently in the instrument
- ▶ Customer and data management with the Wöhler DC Series PC software (optional accessory)
- ▶ Data transmissions via USB connection
- ▶ Print out measurement results including graphic chart on a printer (optional accessory)

## Technical data

Pressure	Principle	piezoresistive semiconductor sensor
	Measurement range	$\pm 7000$ Pa
	Resolution	0.1 Pa... $\pm 900$ Pa, thereafter 1 Pa
Volume flow (based on 1013 hPa and 20 °C)	Principle	Hot film anemometer
	Measurement range	0.0000 to 55.00 l/s
	Resolution	0.0001 l/s to 0.3000 l/s 0.001 l/s to 3.000 l/s 0.01 l/s > 3.00 l/s
	Accuracy	$\pm 0.0009$ l/s or 5 % of reading

Detailed technical data can be found under [www.woehler-international.com/P\\_156.dl](http://www.woehler-international.com/P_156.dl)



# Product features

Article no.

7135 J

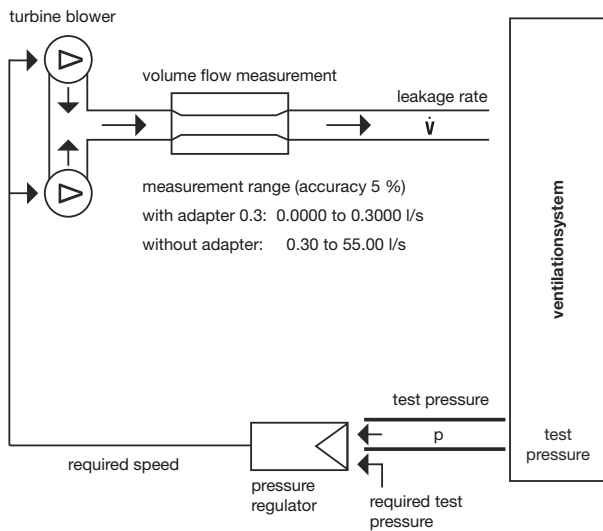
## Application

## Wöhler DP 700 Leakage Tester

Leakage Testing for ventilation systems	•
Efficiency evaluation of ventilation systems	•
<b>Data transfer</b>	
Datalogger	•
PC-Software	•
Infrared interface	•
USB interface	•

• = included

## Schematic measurement setup



Two fans integrated in the instrument blow/extract air via an air hose in/out of the connected air ductwork system or component to be tested. In automatic mode the instrument automatically regulates the current system pressure to achieve the preselected test pressure. This pressure is fed back to the instrument via the connected pressure hose.

The volume of supply air flow required to maintain the pressure corresponds to the leakage of the object under test and is measured in the instrument.

## Principle of operation

### Leakage test on VAC systems according to DIN EN 12599

For reasons of accessibility the leakage test should be carried out during the installation phase. The leakage test is performed according to contractual agreement to verify compliance with leakage classes A-D as defined in DIN EN 13779.

For this purpose the ductwork is generally subdivided into different sections and sealed. The leakage tester then generates positive pressure in the correspondingly sealed sections of the supply air ducts and negative pressure in the exhaust air ducts, which should respectively be as close as possible to the mean of the average operating pressure. The standard suggests +200, +400 or +1.000 Pa as positive pressure or rather -200, -400 or -750 Pa as negative pressure. The required air flow rate to maintain the pressure is the leakage rate for which limit values are determined according to the interior surface area and test pressure specified in the relevant standards.

The user selects the test pressure and enters the interior surface area. The instrument then determines the air leakage rate based on the surface and pressure completely automatically and rates the system according to leakage classes.

### Leakage tests during the series production of air ducts

It is becoming increasingly advisable to document quality throughout series production. It is possible to carry out the test within a couple of minutes alongside the production process – and without any large-scale disruption.

The test is particularly easily performed on rectangular and special ducting by simply carrying out a negative pressure test to determine deviations from the standard. The item under test is placed briefly on a test plate and simply sealed off with a loosely fitting lid.

### Leakage test on controlled residential ventilation systems to DIN EN 14134

The leakage test on residential ventilation systems is similar to those performed to DIN EN 12599. However, the air leakage rate should be measured at least at three different points at pressure differences of about 20 Pa, 60 Pa and 200 Pa.

With what we know today, measurements with 3 pressures are no longer absolutely necessary; this European standard from 2004 is presently being revised.

## Basic Set

Wöhler DP 700 Leakage Tester		
Scope of delivery	Wöhler DP 700 Leakage Tester	•
	Air hose 3.75 m	•
	Air hose 4 m	•
	Pressure hose 10 m	•
	Calibration report	•
	Power cable 2.5 m	•
	Adapter 0.3, 2 brass nipples	•
	Hose connection for negative pressure	•
	Filter pad	•
	Silicone grease	•
	2 transport cases	•
	Article no.	7135 J















## Accessory Sets

	Documentation Set	Sealing Set round air ducts	
Scope of delivery	Wöhler TD 100 fast thermal printer	•	
	10 rolls of thermal paper	•	
	Wöhler DC Series PC software	•	
	USB cable	•	
	K-pump with various adapters		•
	5 Sealing bladders for round systems size 3 – for nominal size 100 – 250 mm		•
	5 Sealing bladders for round systems size 5 – for nominal size 200 – 400 mm		•
	5 Sealing bladders for round systems size 10 – for nominal size 315 – 630 mm		•
	15 hose clamps suitable for hoses $\varnothing = 3.2 - 11$ mm		•
		Article no.	7130 J
			7103 J

• = included

Accessories

Article no.

	<b>Capillary hose with (+) connector</b> capillary hose 6 m, connector, silicone hose	2604 J
	<b>Capillary hose with (-) connector</b> Capillary hose 6 m and silicone hose	2672 J
	<b>Set of capillary hoses</b> Capillary hose 6 m with (+) port, capillary hose 6 m with (-) port, connector, silicone hose To perform the 4 Pa-Test	2670 J
	<b>Air tube</b> 3,75 m long 10 m long	21943 J 22235 J
	<b>Sealing bladder</b> set with 5 pcs. / with 5 clamps <b>size 3</b> Ø 100 – 250 mm <b>size 5</b> Ø 200 – 400 mm <b>size 10</b> Ø 315 – 630 mm	3314 O 3316 O 3317 O
	<b>Filter pad</b> pack with 5 pcs.	2617 K
	<b>Wöhler TD 100 Thermal Fast Printer</b> Infrared printer with 1 roll thermal paper and four batteries	4160 I
	<b>Thermal Paper</b> 57 mm width, 12 m long, 10 rolls for thermal printer Wöhler TD 100 / 600	4145 I
	<b>Data Exchange Software</b> for Wöhler DC 4xx / DP 600 The Software can be downloaded. You will receive a separate email including the link.	1005 J
	<b>Fog spray gun – Full set</b> at the push of a button it generates a non aggressive oil dust for local leak detection Scope of delivery: fog spray gun, fluid, machine attachment, small replacement attachment with mini-fan, screw-driver, 7 batteries, manual, all in a heavy-duty carrying case	8450 I
	<b>Wöhler VIS 350 Service Camera</b> 20 m fix head for visual inspection of water pipes, flues and ventilation lines from Ø 60 – 200 mm Scope of delivery: Wöhler VIS 350 Service Camera, digital meter counter, pan and tilt color camera head Ø 40 mm, Wöhler TFT monitor 7" with 2 m cable, SD memory card 4 GB SD for recording of pictures and videos, mini USB cable, 20 m push rod 6.5 mm, 5 replacement plastic domes, 1 anti-slide-mat, 2 NiMH batteries and charger, plastic case	8794 J
	<b>Wöhler VIS Camera Trolley</b> Scope of delivery: Wöhler VIS Camera Trolley, Camerahead-holder, Storage bag Wöhler, Stabilization sleeve for light ring 26/40 or camera head Ø 51 mm, Stabilization sleeve for adaptation of push rods with threaded connection M10	4753 J
	<b>Wöhler VE 200 HD-Video Endoscope</b> Scope of delivery: Wöhler VE 200 HD-Video Endoscope with 1,2 m probe, 4x AA batteries, side tip mirror, magnet, hook tool, plastic case (The VE 200 is not compatible with Windows Phone)	7792 I
	<b>Wöhler Glass Mirror</b> with telescopic handle – Wöhler Glass Mirror up to 1 m extendable, ball joint (pan and tilt), aluminium edge protector, leather cover <b>small</b> mirror plate 2,6 x 7 cm <b>medium</b> mirror plate 5 x 8 cm <b>large</b> mirror plate 8 x 15 cm	8064 O 8059 O 8087 O

# Order Form

Product	Article no.	Qty.
Basic set: Wöhler DP 700 Leakage Tester	7135 J	
Accessory set: Documentation Set	7130 J	
Accessory set: Sealing Set round air ducts	7103 J	

Billing address/customer	Delivery address (if different to billing address)						
Company _____	Company _____						
Name _____	Name _____						
Street/house no. _____	Street/house no. _____						
ZIP code/City _____	ZIP code/City _____						
Country _____	Country _____						
Telephone _____	Fax _____						
Mobile _____	E-Mail _____						
Customer number <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td><td style="width: 20px; height: 20px;"></td></tr></table>							
Date _____	Signature or company stamp _____						



**Wöhler Technik GmbH**  
**Headquarters Germany**  
 Wöhler-Platz 1 · 33181 Bad Wünnenberg  
[www.woehler-international.com](http://www.woehler-international.com)

Your contact