

# VacuScope comfort

## Measuring device for comprehensive testing of milking systems

### Powerful, robust, easy to handle

VacuScope comfort is a powerful and robust hand-held measuring device that covers all tasks in the field of milking machine testing: from quick functional tests to extensive testing and maintenance work as well as in the areas of consulting, research and development.

This device provides two high-quality internal vacuum sensors, two connections for external sensors and a further connection for an optional air flow meter. This makes it suitable for complex measurements, including the complete testing of milking systems in accordance with DIN ISO 6690.

Other outstanding features include the metal housing, which is protected against dust and water jets (IP65), the large, backlit graphic display and the easy-to-use keypad (even when wearing gloves) with ten variable function keys. These allow you to work intuitively and quickly.

### Test methods

#### Short-term measurements

Recording of up to 200 short-term measurements on up to four channels: pulsation according to ISO 6690, fluctuations with intervals of 1-99 ms, maximum and minimum values (e.g. mouth piece vacuum).

#### Long-term measurements

Vacuum and temperature measurements, e.g., during a milking process or a milking system cleaning.

#### Single measurements

Recording of 7x20 independent values (vacuum, air inlet into a milking cluster, airflow, speed, temperature, voltage).

#### Complete milking machine inspection

Up to 10 systems with up to 100 milking units each, in accordance with ISO 6690:2007 and NMC:2012 (USA). The system uses menu-guided programmes with auxiliary functions. It automatically calculates all vacuum values, results and target values to be maintained. Comprehensive protocols can be displayed on the screen, printed out or processed on a PC.

### Protocol printer

The optionally available protocol printer prints the test results – even directly on-site – and thus facilitates the documentation of the equipment inspection.

The printer is small enough to be stored together with the measuring device in an equipment case (accessory). This means that a printout is always quickly to hand if required.

### External sensors

Additional external sensors can be operated on the VacuScope comfort:

- Temperature sensor
- Air flow meter
- (additional) pressure sensor
- Rotational speed sensor



*VacuScope comfort with case, protocol printer and AFM3000*



*VacuScope comfort*

### Technische Daten

- Number of channels: 2 (internal sensors) + 2 (optional external)
- Measuring range: -60..0 kPa (vacuum) 0..40 kPa (pressure)
- Resolution: 0.1 kPa
- Accuracy: 0.6 kPa (0.3 kPa typ.)
- Graphic LCD: 240 x 128 (with backlight)
- Serial interface for connection to PC, protocol printer or air flow meter
- 2x connector for external sensors
- Fast navigation and data entry with 4 cursor keys, Enter and ESC
- Simple menu navigation using 10 softkeys, key function is shown as pictogram on the display
- Language support (selectable in menu): DE, EN, ES, FR, IT, NL, CZ, RU
- Firmware can be updated without opening the device
- Power supplied by 4 AA cells (alkaline batteries or NiMH rechargeable batteries)
- Robust metal housing offers protection against dust ingress and water jets (IP65)
- Dimensions: approx. 220 x 130 x 30 mm
- Weight: approx. 1100g (without battery)

### List of system components

Description
VacuScope comfort - Milking installation measuring device with accessories kit and PC software
Transport case with foam insert for VacuScope comfort
Protocol Printer for VacuScope comfort
AFM 600 - Air Flow Meter up to 600 l/min
AFM 3000 - Air Flow Meter up to 3000 l/min
External Temperature Sensor - 20..140°C
External (additional) Vacuum Sensor
External Revolution Counter

### Downloads + Links

- [VacuScope comfort V2.1 User Manual \(en.\) \[PDF 823KB\]](#)

The measuring device can be connected to a PC to generate detailed reports. A PC with MS Windows operating system and MS Excel is required for operation (tested on Windows 10 with Excel versions 2013, 2016 and 2019).



*graphic display*

### Default package contents

- Hand-held measuring device  
VacuScope comfort
- Carrying strap
- Hose set for connection to the milking cluster
- Hose with cone adapter to vacuum line
- 4 test teats
- Set of alkaline batteries
- Serial data cable
- USB adapter
- Transfer utility and PC software on USB stick
- Manual (PDF)