

# FUNCTIONAL CHECKS

ALL THE INFO ABOUT THE TEST PROCEDURE

USING AUDIOMETRY AND THE IMPRESSION TECHNIQUE.

## A) Audiometry method

Easy and uncomplicated.

In the type examination of hearing protection products, the attenuation values are determined in 1dB steps. Hearing aid audiologists or company doctors generally perform audiometric testing in 5dB steps. Therefore the general formula for determining the minimum attenuation values (APV minus standard deviation) is not applicable as such for the majority. **Here, bachmaier® provides you with measurable minimum attenuation values for your everyday practice, which as difference values of your audiometry ought to be achieved, without/with hearing protection in each case.**

### NOTE

The values can be determined in free field or with circumaural headphones. Please ensure the hearing protector's tab or retaining cord does not come into contact with the headphone, since direct contact will falsify your measurement results, particularly in the low frequencies.

*With all non-linear "work" products, the attenuation values increase from the low to the higher frequencies. On account of this attenuation characteristic, the values for all frequencies do not need to be determined metrologically. The result is already sufficiently meaningful if 500 Hz, 1000 Hz and 2000 Hz are measured positively.*

Measurable minimum attenuation values

### bachmaier® work (soft)

typ / f	125	250	500	1.000	2.000	4.000	8.000
work alpha	15	15	15	20	25	20	25
work I	10	15	15	20	25	25	25
work II	10	10	15	15	20	25	25
work III	0	5	10	15	20	20	25

### bachmaier® work (rigid)

typ / f	125	250	500	1.000	2.000	4.000	8.000
work alpha	20	15	20	25	25	30	35
work I	20	20	25	30	25	30	30
work II	10	15	15	20	20	30	15
work III	5	10	15	20	20	25	15

### bachmaier® fidelity

typ / f	125	250	500	1.000	2.000	4.000	8.000
fidelity b30	20	20	15	15	20	15	30
fidelity b25	15	15	15	20	15	15	20
fidelity b15	10	10	10	10	10	10	10

## bachmaier® *helmet*

125	250	500	1.000	2.000	4.000	8.000
15	15	15	15	25	25	25

## bachmaier® *silence*

125	250	500	1.000	2.000	4.000	8.000
15	15	15	15	25	25	25

# B) Impression method

**Fast and safe.**

## NOTE

**The bachmaier® leak test instrument**

The industrial manufacture of filters guarantees the compliance of filter attenuation values. Leaks between the earmould and ear tissue can affect the attenuation values. **With the bachmaier® leak test instrument you can swiftly, easily and effectively measure whether the operation of the hearing protection can be relied on.**

**The person being tested must not make any chewing movements.**

### PUTTING INTO SERVICE

1. Insert a 9V block battery into the battery compartment on the back of the instrument, ensuring the correct connection.
2. Examine the condition of the instrument's measuring connection as well as the tube. Mount the measuring tube by pushing it over the measuring connection and up to the stop.
3. Fit the appropriate adapter for the earmould to be tested onto the end of the measuring tube.

### CHECKING THE INSTRUMENT

1. Press the start button – motor runs (red LED indicator glows).
2. The green LED indicator will also glow when the measuring nozzle is closed.
3. The tester switches itself off automatically after approx. 10 seconds. Actual measuring can now start.

### PERFORMING THE LEAK TEST

1. Remove the filter from the hearing protection earmould.
2. Insert the particular measuring adapter into the filter opening.
3. Actual measuring takes place in the next step; this requires the hearing protection earmould, together with the adapter/tube, to be placed in the customer's auditory canal. We recommend both you and the customer themselves check correct seating in the ear.
4. When the LED indicator glows red and green, the test measurement is positive. If the green LED indicator does not glow, the measuring operation must be repeated or possibly the earmould re-manufactured.
5. The testing process ends automatically after 10 seconds.

**The leak test instrument comes as a set and is available [in our online-shop](#).**

**QUESTIONS?**

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