



autel



Betaflex

A NEW LOOK ON HEARING

Autel's range of bone conduction hearing aid spectacles

Improving through research,
technology and innovation

the quality of life of those that suffer
from conductive hearing loss has been
our mission for the last 40 years.

The new range of Beta*flex* audio spectacles is the result of our research in finding ways to improve hearing perception for those affected by conductive hearing loss treatable by bone conduction aids.



“ We want to give our customers the opportunity to feel comfortable in any hearing situation and to feel at ease when wearing our eyeglasses.

Experiencing better interaction

Conductive hearing loss affects everyday life causing difficulties both in simple and articulated social dynamics.

The main focus of our research is always the patient. We study in depths ways to improve every type of social interaction considering all kinds of environments.

FOR A BETTER HEARING

Beta Flex's range represents the evolution of Autel's bone conduction audio spectacles.

The performance of our traditional effectiveness is now higher thanks to Autel Flex's revolutionary technology.

The outcome is an excellent product with ongoing reliability and a higher hearing result.

We decided to perfect the whole process of the instalment of the hearing prosthesis by concentrating on the component that could be deformed: the far end of the temple.

With Autel Flex the far end of the aid's terminal is fitted in less time and with more precision, making the expert's work easier and improving considerably the adherence of the aid and, therefore, improving the sound.

With the help of Power technology, Beta Flex's range can also provide a stronger amplification so to cover more types of conductive hearing loss treatable by bone conduction.



IN ALL KINDS OF SITUATIONS

To hear well means to be able to differentiate sounds clearly in a variety of different contexts.

Beta Flex eyeglasses are designed to be programmed in order to provide the best acoustic results according to the environment.

FREE TO CHOOSE

We want to give our customers the opportunity to feel comfortable in any hearing situation and to feel at ease when wearing our eyeglasses.

This is why we created a product which has been studied in every detail and conceived in modular components to give freedom of choice with many combinations that can accustom all tastes.

Designed to obtain a stronger performance

Innovation along the sound path

Beta Flex is composed of many elements that operate together to make the hearing experience of those who wear the aid a perfect one.

With perfectly balanced sounds the patient will be able to act, react and interact in a completely normal manner.

The sound is acquired through a **microphone 1** with a **high GSM immunity** (low Larsen effect) and is transmitted to an amplifier that converts the acoustic input into an electrical one.

With the aid of a **SWITCH 2** the device is perfectly set according to the hearing situation.

These settings can be programmed either analogically through a trimmer (DGT) or digitally via Digital Remote Control (DSP).

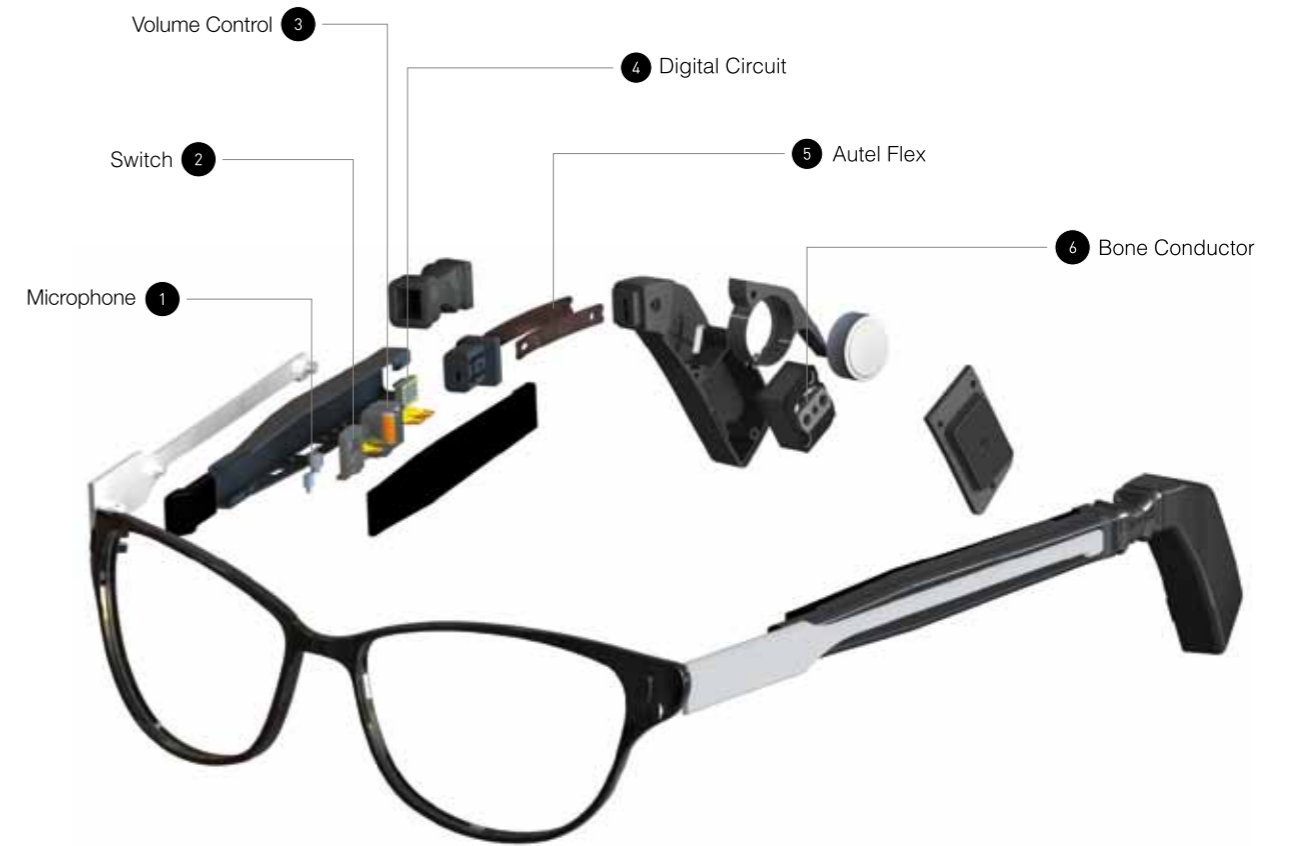
The volume can be adjusted manually by means of a simple volume control **3**.

The sound is then channelled in the **Digital Circuit 4** that amplifies it and eliminates impurities.

The electric signal in the **bone conductor 6** is transformed in mechanical vibrations that are then transmitted to the mastoid.

The perfect adherence of the bone conduction to the mastoid is guaranteed by **Autel Flex 5** technology thanks to its cold shaping process.

The **Power version** of Beta Flex allows the strengthening of the vibration when the hearing loss is more serious.



SIMPLE FITTING

Flexibility is the base of Autel Flex technology. The technique of cold shaping allows obtaining a greater adherence of the aid to the mastoid.



ASSEMBLY SPEED

Beta Flex range is designed to guarantee ease when fitting or replacing the parts, thanks to several standard extension lengths.



POWER

Thanks to the Power system the vibration of the aid is significantly stronger. Thus the range of types of conductive hearing loss treatable by bone conduction is notably widened.



PERSONALIZE

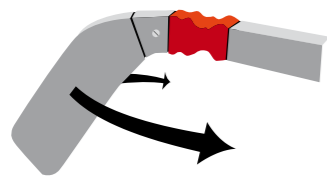
Beta Flex is available in a wide range of models and can be personalized by combining frames, temples and extensions as one wishes. The system is conceived to give the patient the greatest freedom of choice.

Flexibility and Power

flex

AUTEL FLEX technology is a revolutionary innovation in the world of bone conduction hearing aids.

With Autel Flex system the fitting of the hearing aid becomes faster and more efficient thanks to the cold shaping process. This process, in comparison to the traditional hot methods, permits the audiologists to achieve sooner and in an easier way an absolutely precise setting of the bone conduction on the patient's mastoid area.



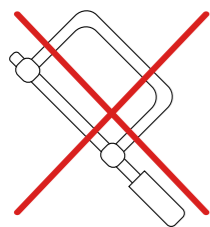
SIMPLE AND PERFORMING

The performance is improved through the innovative cold shaping method that allows the expert to perform a more precise fitting operation of the bone conductor to the mastoid compared to the traditional methods. This means obtaining results that are clearly better both in the adherence and consequently in the aid's sound output.



FAST AND ACCURATE

The advantages must also be calculated in time: the old process of bending by hot shaping takes on average 25 minutes and needs an external heat source. Beta Flex reduces this step to just a few minutes, guaranteeing an even better quality of the end product.

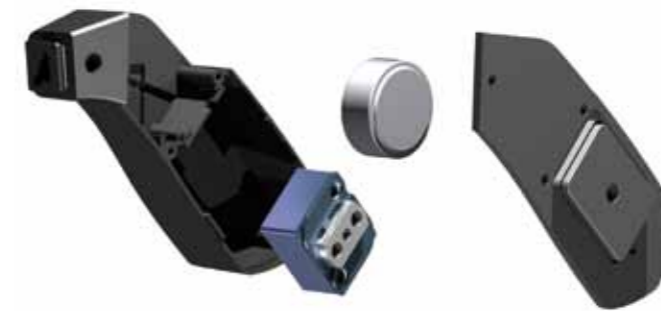


ADAPTABLE

To be able to cover all physiognomies, we thought of adding to the revolutionary cold shaping method of the final part of the aid, the opportunity to mount different extension lengths according to needs so to avoid their cutting.



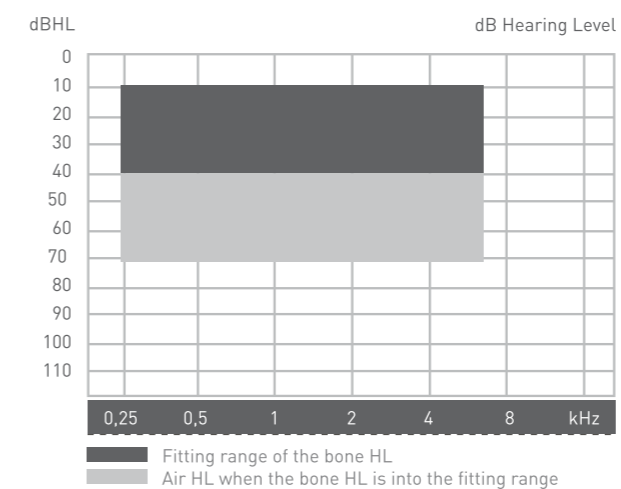
POWER technology is a stronger version of the hearing aid's bone conductor that consequently has an increased power compared to the standard one.



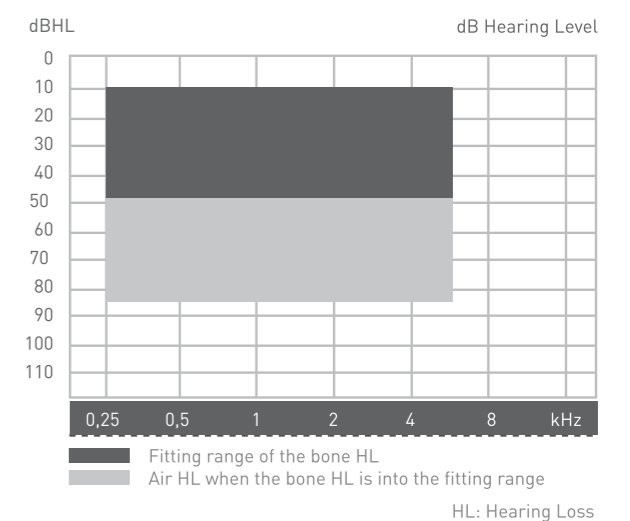
Thanks to this technology the field of hearing loss types treatable with Beta Flex bone conduction is widened, providing the audiologists with a modern instrument more and more precise in the treatment of these kind of pathologies.

FITTING RANGES

Beta Flex



Beta Flex Power



HL: Hearing Loss

Models

Design made in Italy

We have created a range of products that combines maximum performance and a design finished off in every detail and made with excellent materials.

Beta Flex offers classic, sophisticated and modern models and the customer can choose to personalise them thanks to the multiple options of shapes and colours available to each component.





ELEGANCE

Slim and light eyeglasses with modern and refined shapes, in 2 versions, Men/Women and available in a wide range of colour schemes. This product designed and made in Italy, is created with modern, reliable and resistant excellent materials.

Elegance is the result of Autel's partnership with some of the most important Italian leaders in optical design.

Elegance is perfect for those who love to wear modern designed spectacles.



FRAMES

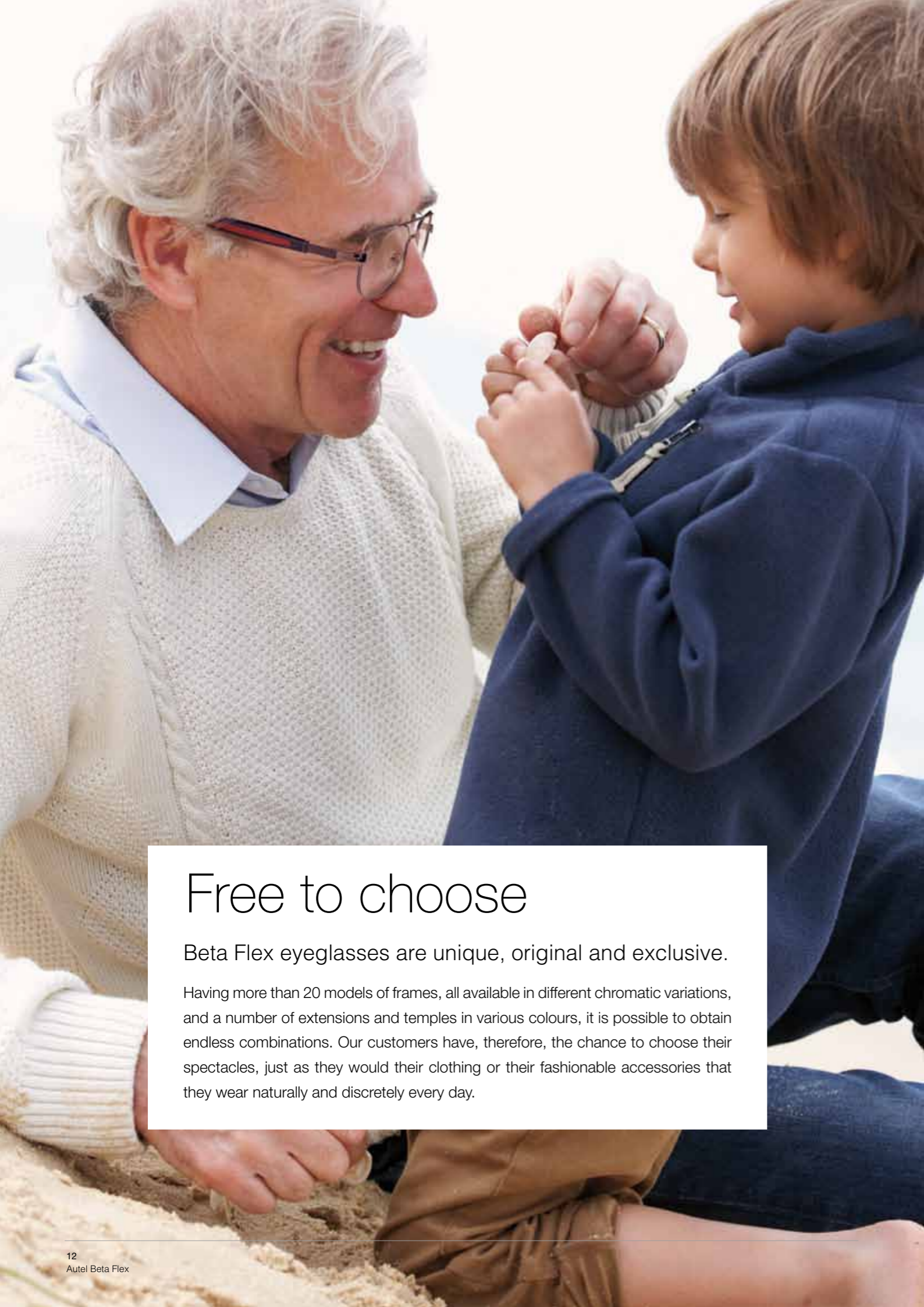


EXTENSIONS



TEMPLES





Free to choose

Beta Flex eyeglasses are unique, original and exclusive.

Having more than 20 models of frames, all available in different chromatic variations, and a number of extensions and temples in various colours, it is possible to obtain endless combinations. Our customers have, therefore, the chance to choose their spectacles, just as they would their clothing or their fashionable accessories that they wear naturally and discretely every day.



INCISION



This model adds an ornamental element to the other Betaflex products: the incision of the temple. One can choose red for a stronger look, gold for a classic version or silver for an elegant one.

This model is dedicated to those who pay a lot of attention to every little detail in their look.



CORTO

Four monochromatic temples, easy to coordinate with the many frames and extensions available.

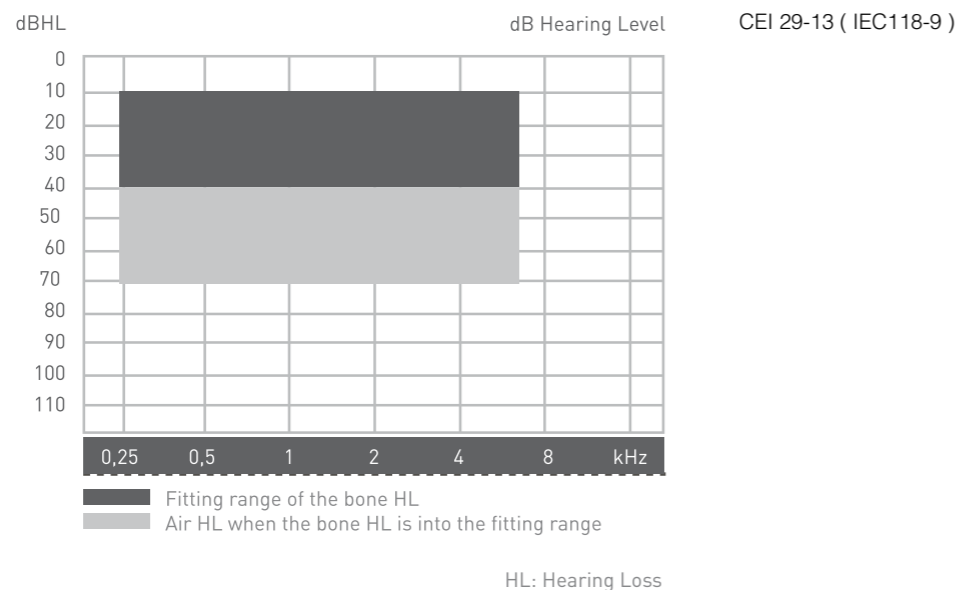
INCISION TEMPLES



CORTO TEMPLES



For the complete catalogue of frame models and chromatic variations visit our website www.autel-italia.it



TYPES

- DGT** Digital programmable with trimmers
- DSP** Digital programmable using AUTEL software

	DGT 2	DGT 4	DSP 1/M	DSP 4/M
Trimmer	2	4	NO	NO
Low tone control	YES	YES	YES	YES
High tone control	NO	YES	YES	YES
Gain control	YES	YES	YES	YES
Volume control	YES	YES	YES	YES
Power control	YES	YES	YES	YES
M-T switch	YES	YES	YES	YES
High GSM immune microphone	YES	YES	YES	YES
Acoustic warning for low battery	YES	YES	YES	YES

- 100% DIGITAL CLASS D CIRCUIT
- COMFORTABLE LISTENING IN CONDITIONS OF HIGH SOUND LEVELS

Output force level max

Peak	108 dB rel. 1µ N
1.600 Hz	96 dB rel. 1µ N

Mechanical-acoustic sensitivity level (AMSL)

Peak	37 dB
1.600 Hz	26 dB

Mechanical-acoustic sensitivity level (RTG)

	21 dB
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Frequency range

	250 Hz 5000 Hz
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Equivalent input noise level

	28 dB rel. 1µ N
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Maximum coil sensitivity (10mA/m)

	67 dB rel. 1µ N
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THD Total harmonic distortion (500 / 800 / 1600 Hz)

	< 2,5 / 0,2 / 0,1 %
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Battery current

	< 1,6 mA
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Battery type (Zinc-air)

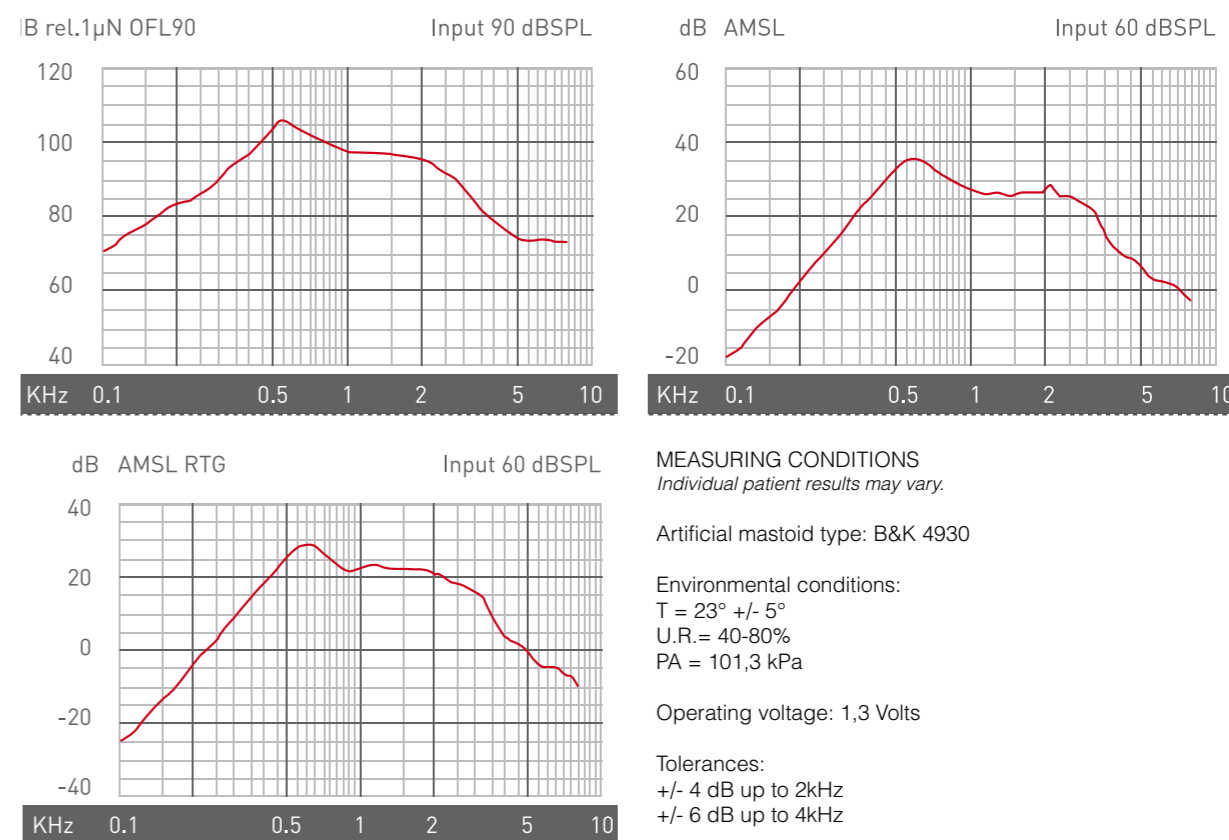
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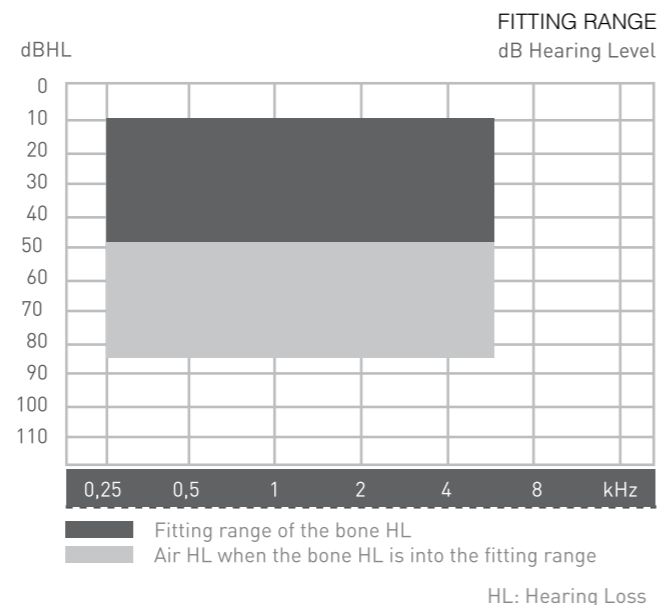
Average battery life

	@ 310 h
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Reference test frequency

	1600 Hz
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Output force level max

Peak	115 dB rel. 1µ N
1.600 Hz	103 dB rel. 1µ N

Mechanical-acoustic sensitivity level (AMSL)

Peak	48 dB
1.600 Hz	35 dB

Mechanical-acoustic sensitivity level (RTG)

Peak	30 dB
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Frequency range

Frequency range	250 Hz 4500 Hz
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Equivalent input noise level

Equivalent input noise level	35 dB rel. 1µ N
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Maximum coil sensitivity (10mA/m)

Maximum coil sensitivity (10mA/m)	79 dB rel. 1µ N
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THD Total harmonic distortion (500 / 800 / 1600 Hz)

THD Total harmonic distortion (500 / 800 / 1600 Hz)	< 2,5 / 0,2 / 0,1 %
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Battery current

Battery current	< 1,5 mA
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Battery type (Zinc-air)

Battery type (Zinc-air)	675
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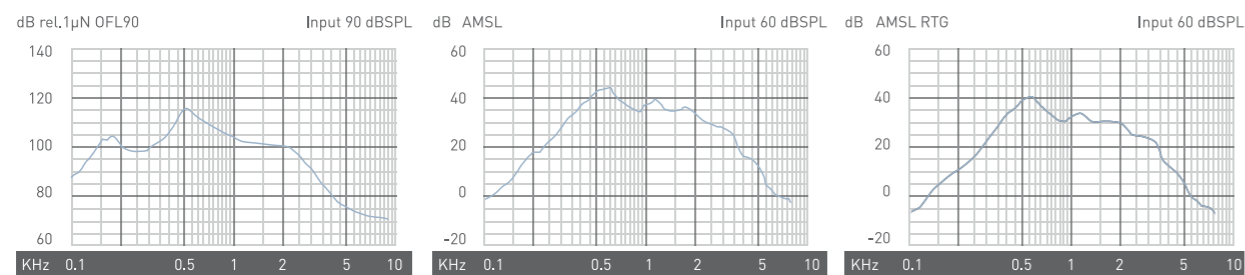
Average battery life

Average battery life	@ 310 h
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Reference test frequency

Reference test frequency	1600 Hz
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Betaflex



MEASURING CONDITIONS
Individual patient results may vary.

CEI 29-13 (IEC118-9)

Artificial mastoid type: B&K 4930

Environmental conditions:
 T = 23° +/- 5°
 RH.= 40-80%
 PA = 101,3 kPa

Operating voltage: 1,3 Volts

Tolerances:
 +/- 4 dB up to 2kHz
 +/- 6 dB up to 4kHz



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Beta Flex is a product of **Autel S.r.l.**

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