



Product portfolio

B2B assortment



Elacin at work

Besides hearing protection for the consumer market Elacin is the number one when it comes to the production and delivery of custom-made hearing protection in industry. Safe, comfortable and fully focused on working in a noisy environment, while preserving communication. There is a solution for everyone, from factory worker to paramedic.

Elacin, the right choice for each employee who takes its hearing seriously. And for every employer who has the health and wellbeing of its employees at heart.

Elacin is leader in the development of filters for hearing protection. With the development of three different Elacin filters, which are available with various attenuation levels, we offer a solution for every situation.

Elacin CH filters

The Elacin CH filter sets the standard in customized hearing protection. Its Elacin-only core helix technology provides four levels of protection (all the way) up to 30 dB SNR, which is very impressive for a soft silicon customized hearing protector.

Elacin RC filter

The Elacin RC filter is provided with a membrane with a balanced mass and flexibility and features laser-cut perforations, allowing the hearing canal to ventilate. As a result, the filter is transparent to the high frequencies, so sound is hardly deformed.

Elacin ER filter

The Elacin ER filter is equipped with a specially shaped membrane, contained in a housing with a Helmholtz resonator. Together, this makes for a unique flat attenuation for both low, mid and high frequencies.










Elacin Universal ST24 – the new standard

Decades of Elacin's experience on custom moulds have formed the inspiration for an Elacin Universal hearing protector. It's registered design presents the best compromise in a one-size-fits-all hearing protector, providing a comfortable and secure seal for (almost) everyone. The acoustic filter ensures state of the art sound quality for a universal hearing protector.






For more information about our products, visit elacinatwork.com or contact our customer service representatives via info@elacin.com or **+31 (0) 162 37 25 25**.



Overview hearing protection – B2B

Category	Product	Description
Custom-made hearing protection	 <p>Elacin RC</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with RC13, RC15, RC17,RC18 and RC19 filter • Always with cord
	 <p>Elacin RC minigrip</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with RC13, RC15, RC17,RC18 and RC19 filter • Executed with minigrip • Optional with cord
	 <p>Elacin RC no grip</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with RC13, RC15, RC17, RC18 and RC19 filter
	 <p>Elacin CH</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with CH30, CH28, CH26 and CH25 filter • Always with cord
	 <p>Elacin CH minigrip</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with CH30, CH28, CH26 and CH25 filter • Executed with minigrip • Optional with cord
	 <p>Elacin CH acrylic</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with CH28 and CH25 filter • Optional with cord
	 <p>Elacin ER</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with ER9, ER15 and ER25 filter • Optional with cord
	Custom-made earmoulds	 <p>Elacin SleepFit</p>
Universal hearing protection	 <p>Elacin Universal ST24 at work</p>	<ul style="list-style-type: none"> • Universal earplug • One-size-fits-all • Acoustic filter • Flat attenuation filter

Overview hearing protection + communication – B2B

Category	Product	Category
Hearing protection + electronic communication	 <p>SafeSound</p>	<ul style="list-style-type: none"> • Custom-made hearing protection • Available with RC15, RC17, RC18 and RC19 filter
	 <p>Elacin SoloCom</p>	<ul style="list-style-type: none"> • Use in combination with SafeSound custom-made hearing protection • Use two-way radio in surroundings with moderate noise level
	 <p>Elacin SoloCom Lo</p>	<ul style="list-style-type: none"> • Use in combination with SafeSound custom-made hearing protection • Use with two-way radio or remote speaker microphone in surroundings with moderate noise level
	 <p>Elacin SoloCom Tube</p>	<ul style="list-style-type: none"> • Use in combination with SafeSound custom-made hearing protection • Where (Otto) listening sets are already in use • Where the surrounding noise level makes hearing protection necessary
	 <p>Elacin BoomMic</p>	<ul style="list-style-type: none"> • Use in combination with SafeSound custom-made hearing protection • Use with telephone (GSM/Dect) • or two-way radio • In surroundings with high noise level

Product portfolio **B2B**
Custom-made hearing protection

Elacin RC

The Elacin RC is provided with a patented sound filter concept, offering improved transparency for higher frequencies. Due to this significantly improved attenuation characteristic, it provides very good speech intelligibility, work sound and warning signal perception. Thanks to this quality, the Elacin RC provides a high acoustical wearing comfort and eliminates the need for removal during communication. The wide range of filters includes low attenuation values preventing uncomfortable and dangerous over attenuation at lower, but still harmful noise levels.



The Elacin RC is a compact hearing protector provided with a small grip, which makes it easy to fit the protector and remove it from the ear canal. It comes standard with a cord and shirt clip.

Optional

The Elacin RC hearing protector is also available as a minigrip (with o-ring) or as no grip-version.

Material

The Elacin RC is manufactured from soft FlexFit material (hardness 60 Shore) in aqua or transparent and comes with a cord and shirt clip. Another colour is also possible. At an additional cost, the RC can be delivered in the colours red, blue, yellow, black or green transparent.

Filters

There is a choice of 5 filter types, depending on the noise level:

- Elacin RC19 filter (black)
- Elacin RC18 filter (braun)
- Elacin RC17 filter (grey)
- Elacin RC15 filter (beige)
- Elacin RC13 filter (white)

Application of use

- Where speech intelligibility is important
- Where work sound perception is important
- Where warning signal perception is important
- Users with symptoms of hearing loss
- Environments with limited harmful noise levels

Suitable for use in

- Industrial environments
- Printing
- Construction
- Transport

Benefits

- Prevention over attenuation
- Less acoustical isolation for the wearer
- Very good speech intelligibility
- Very good work sound and warning signal perception
- No need for removal during communication
- High acoustical and physical wearing comfort
- No isolation from, and more alertness to the direct environment

- Improved acceptance and willingness to wear
- More comfortable and safe for hearing impaired users
- Does not protrude (no risk of hitting objects) and is nearly invisible
- Provided with grip for easy fit and removal
- Soft and very lightweight
- Perfect fit for long-term use
- Continued ventilation of the ear canal
- Selection of 5 filter types, depending on the noise level
- Easy to clean
- Optional metal ball for detection (e.g. for food industry)

Attenuation values

f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
Elacin RC19	APVf [dB]	19,0	19,2	19,7	20,0	19,4	16,4	22,3	18	19	19	20
Elacin RC18		14,4	16,0	17,8	18,3	19,1	18,6	14,0	17	18	17	19
Elacin RC17		9,5	12,0	16,7	16,7	20,6	16,4	14,3	17	17	14	18
Elacin RC15		7,3	9,6	13,7	14,4	19,7	19,6	12,3	17	15	12	17
Elacin RC13 ⁺		4,1	6,7	10,8	12,8	18,1	19,3	12,8	17	13	9	15

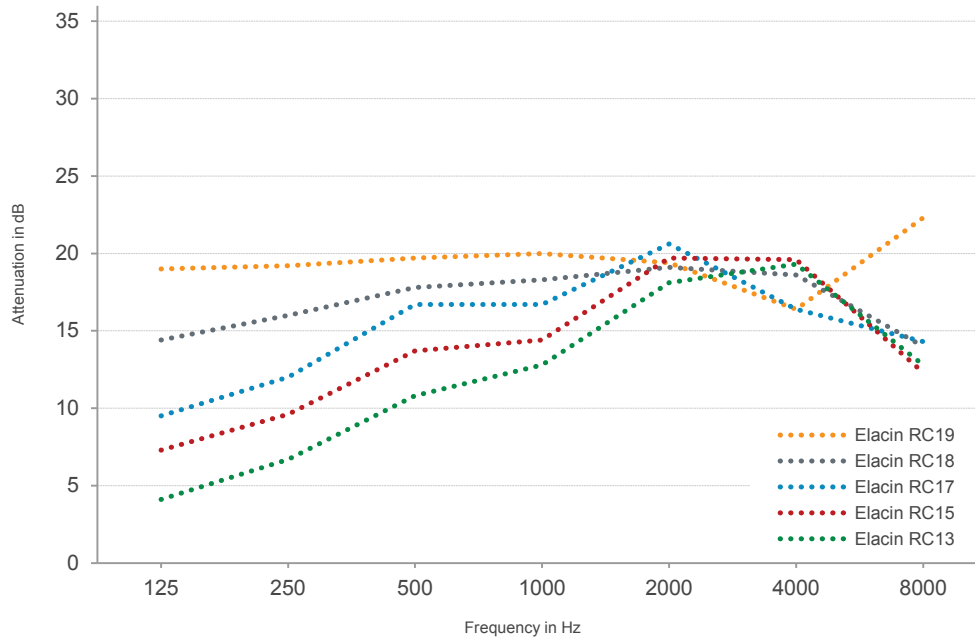
f in Hz		125	250	500	1000	2000	4000	8000
Elacin RC19	Mf [dB]	22,4	23,9	23,7	22,5	22,1	20,4	26,2
Elacin RC18		17,5	19,1	21,4	21,8	21,9	23,3	19,1
Elacin RC17		12,7	15,6	20,3	19,9	23,5	21,2	18,9
Elacin RC15		10,8	12,8	17,0	17,9	22,9	23,5	17,5
Elacin RC13 ⁺		7,3	9,5	13,8	16,0	22,2	22,9	17,1

f in Hz		125	250	500	1000	2000	4000	8000
Elacin RC19	Sf [dB]	3,3	4,7	3,9	2,4	2,7	4,0	3,9
Elacin RC18		3,0	3,1	3,6	3,4	2,8	4,7	5,1
Elacin RC17		3,2	3,6	3,5	3,2	2,8	4,8	4,6
Elacin RC15		3,5	3,2	3,2	3,4	3,2	3,9	5,2
Elacin RC13 ⁺		3,2	2,8	2,9	3,1	4,0	3,5	4,3

* The attenuation of the RC13 does satisfy all relevant requirements as set in the PPE Directive 89/686/EEG and EN352-2, except for paragraph 4.3.6.

Attenuation curve

Elacin RC



Elacin CH

The Elacin CH is made of transparent silicone material. It is our best-selling custom-made hearing protector. Moreover Elacin CH offers the ideal combination of maximum comfort and optimal protection against noise.

The Elacin CH is a compact hearing protector with a small handgrip, which makes it easy to fit the protector and remove it from the hearing canal. This grip is automatically pre-shaped during the production process so that its size and shape is exactly the same for every CH hearing protector.

The Elacin CH lies entirely inside the ear shell, making it practically invisible and eliminating the risk of knocking it.

Optional

The Elacin CH may also be provided with a metal ball for detection, e.g. for use in the food industry.

Material

The Elacin CH is manufactured from soft FlexFit materials (hardness 60 Shore) in clear transparent and comes with a cord and shirt clip. Another colour is also possible. At an additional cost, the CH can be delivered in the colours red, blue, yellow, black, aqua or green transparent.

Please note! The Elacin CH30 is only available in the colours transparent, green transparent and aqua.

Filters

There is a choice of 4 filter types, depending on the noise level:

- Elacin CH30 filter (black)
- Elacin CH28 filter (blue)
- Elacin CH26 filter (grey)
- Elacin CH25 filter (white)

Application of use

- Environments with high noise levels

Suitable for use in

- Industrial environments
- Food industry

Benefits

- Custom-made; perfect fit
- Soft and very light
- Optimal protection
- Comfortable when worn for a long-time-period
- Nearly invisible in the ear
- No pressure in or on the hearing canal
- Ambient sounds remain audible
- Safe and comfortable
- Choice of filter depending on the noise level
- Ventilation of the hearing canal
- Easy to clean
- Possibility of a metal ball for detection (e.g. in the food industry)



Attenuation values

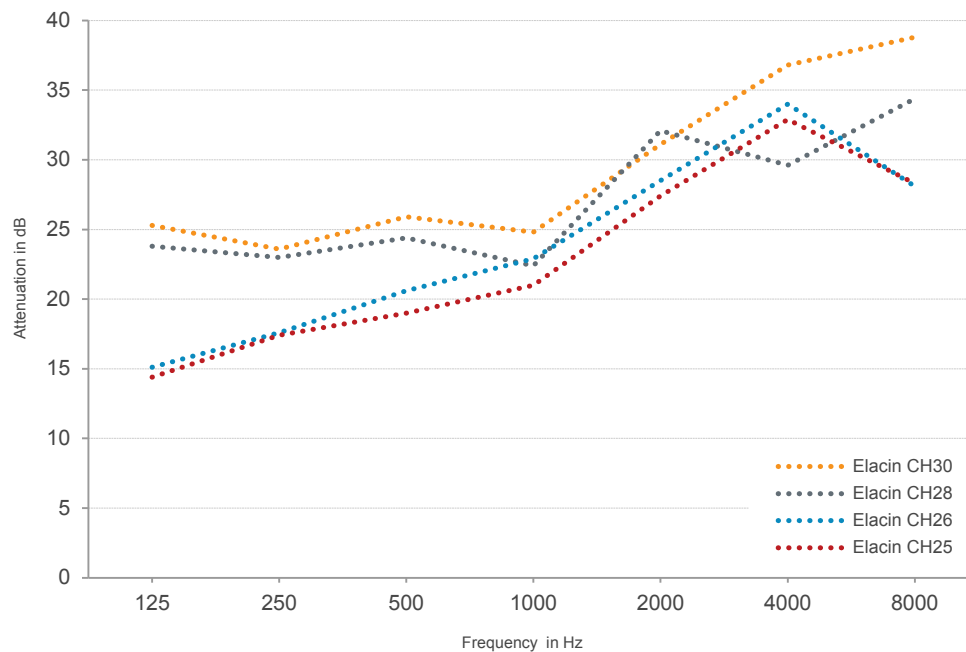
f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APV [dB]	Elacin CH30	25,3	23,6	25,9	24,8	31,1	36,8	38,8	31	27	25	30
	Elacin CH28	23,8	23,0	24,4	22,4	32,1	29,6	34,4	29	24	24	28
	Elacin CH26	15,1	17,6	20,6	22,9	28,5	34,0	28,1	28	23	20	26
	Elacin CH25	14,4	17,4	19,0	21,0	27,4	32,9	28,3	27	22	19	25

f in Hz		125	250	500	1000	2000	4000	8000
Mean [dB]	Elacin CH30	29,1	27,5	29,6	28,3	34,0	40,2	44,0
	Elacin CH28	28,5	26,6	27,7	26,0	34,7	33,4	39,7
	Elacin CH26	19,4	20,9	23,8	26,2	31,3	36,5	32,8
	Elacin CH25	17,9	19,7	21,9	24,6	30,7	35,0	32,1

f in Hz		125	250	500	1000	2000	4000	8000
Stdev. [dB]	Elacin CH30	3,8	3,9	3,7	3,5	2,9	3,4	5,6
	Elacin CH28	4,7	3,6	3,3	3,6	2,6	3,8	5,3
	Elacin CH26	4,3	3,3	3,2	3,3	2,8	2,5	4,7
	Elacin CH25	3,5	2,3	2,9	3,6	3,3	2,1	3,8

Attenuation curve

Elacin CH



Elacin CH minigrip

The Elacin CH minigrip is a very compact hearing protector, that was first developed to provide protection for motorcyclists of the Dutch Traffic police. They were searching for a comfortable hearing protector, which would protect them against harmful wind noise. The Elacin CH minigrip has a flexible silicone o-ring which makes it easier to fit the protector and remove it from the hearing canal. This ring makes it also possible to fit a cord.

The Elacin CH minigrip fits completely in the hearing canal, with no protruding parts. Therefore it is well suited for usage under a helmet.



Alarming result

When driving at high speed, wind noise can go up to dangerous noise levels exceeding 100 decibels! Official measurements of the Traffic police (using a good helmet) showed an alarming result:

Speed	Wind noise
100 km/h	94 dB(A)
120 km/h	98 dB(A)
140 km/h	102 dB(A)

Long term exposure to noise levels of more than 80 dB can cause irreversible hearing damage. The higher the dB level, the faster people will sustain hearing damage. The following statistics indicate the time frame people can safely stay in a noisy environment.

Volume	Max. stay per working day
80 dB(A)	8 hours
83 dB(A)	4 hours
86 dB(A)	2 hours
89 dB(A)	1 hour
92 dB(A)	30 minutes
95 dB(A)	15 minutes

Wind noise during motorbike riding creates a noise level that will cause hearing damage on the long term. A motorcyclist riding at 100km/h can only drive at this speed for approx. 15 minutes; at 120 km/h this is 7 minutes and at 140 km/h only 3 minutes. In these cases hearing protection is essential!

Material

The Elacin CH minigrip is manufactured from soft FlexFit material (60 Shore) in a clear transparent colour. At an additional cost, the CH minigrip can be delivered in the colours red, blue, yellow, black, aqua or green transparent.

Please note! The Elacin CH30 is only available in the colours transparent, green transparent and aqua.

Filters

There is a choice of 4 filter types, depending on the noise level:

- Elacin CH30 filter (black)
- Elacin CH28 filter (blue)
- Elacin CH26 filter (grey)
- Elacin CH25 filter (white)

Application of use

- Where there is a risk that a handgrip gets knocked
- When need to be protected against harmful wind noise
- When wearing a helmet

Suitable for use in

- Industrial environments
- Traffic police
- Defence

Benefits

- Custom-made; perfect fit
- Does not protrude the ear
- Attenuates dangerous wind noise
- Designed to wear with a helmet
- Made of soft and light material
- Easy to insert and remove
- Nearly invisible in the ear
- No pressure on the hearing canal
- Speech and surround noise are maintained
- Safe and comfortable
- Ventilation of the hearing canal
- Communication through the intercom is possible
- Easy to clean

Attenuation values

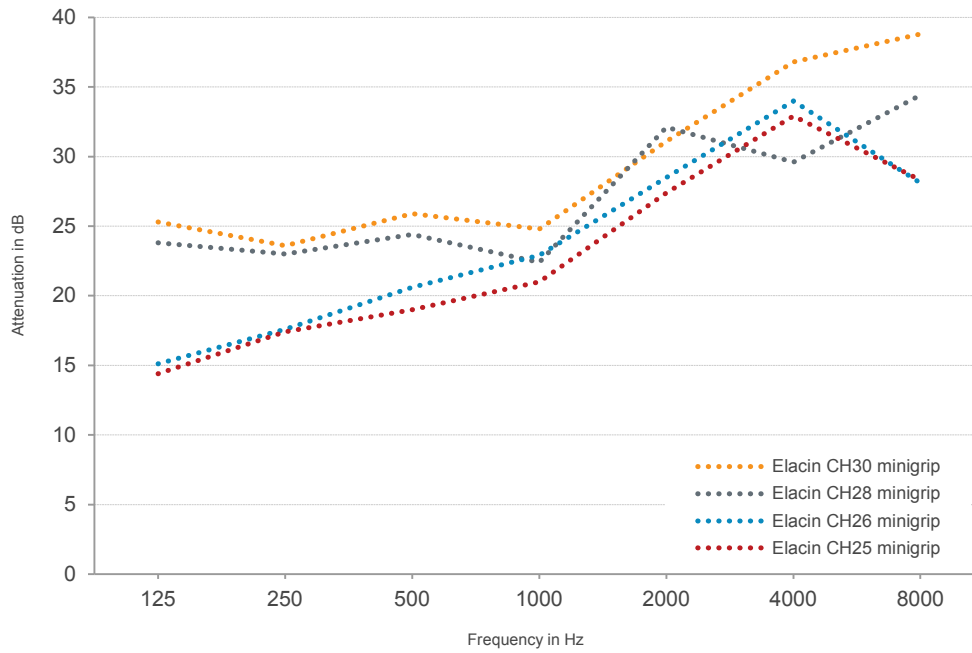
f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APV [dB]	Elacin CH30 minigrip	25,3	23,6	25,9	24,8	31,1	36,8	38,8	31	27	25	30
	Elacin CH28 minigrip	23,8	23,0	24,4	22,4	32,1	29,6	34,4	29	24	24	28
	Elacin CH26 minigrip	15,1	17,6	20,6	22,9	28,5	34,0	28,1	28	23	20	26
	Elacin CH25 minigrip	14,4	17,4	19,0	21,0	27,4	32,9	28,3	27	22	19	25

f in Hz		125	250	500	1000	2000	4000	8000
Mean [dB]	Elacin CH30 minigrip	29,1	27,5	29,6	28,3	34,0	40,2	44,0
	Elacin CH28 minigrip	28,5	26,6	27,7	26,0	34,7	33,4	39,7
	Elacin CH26 minigrip	19,4	20,9	23,8	26,2	31,3	36,5	32,8
	Elacin CH25 minigrip	17,9	19,7	21,9	24,6	30,7	35,0	32,1

f in Hz		125	250	500	1000	2000	4000	8000
Sf [dB]	Elacin CH30 minigrip	3,8	3,9	3,7	3,5	2,9	3,4	5,6
	Elacin CH28 minigrip	4,7	3,6	3,3	3,6	2,6	3,8	5,3
	Elacin CH26 minigrip	4,3	3,3	3,2	3,3	2,8	2,5	4,7
	Elacin CH25 minigrip	3,5	2,3	2,9	3,6	3,3	2,1	3,8

Attenuation curve

Elacin CH



Elacin CH acrylic

The Elacin CH acrylic is a compact hearing protector with a small handgrip, which makes it easy to fit the protector and remove it from the hearing canal. This grip is automatically pre-shaped during the production process so that its size and shape is exactly the same for every CH acrylic hearing protector.

This compact custom-made hearing protector is made of a hard material (acrylic) and is used primarily in automotive industry, where silicone is prohibited. But also for those with a narrow auditory canal or an allergy to silicone, this hearing protector is an outcome.

Optional

The Elacin CH acrylic may also be provided with a metal ball for detection, e.g. for use in the food industry.

Material

The Elacin CH acrylic is made from hard (acrylic) material.

Filters

There is a choice of 2 filter types, depending on the noise level:

- Elacin CH28 filter (blue)
- Elacin CH25 filter (white)

Colour

The Elacin CH acrylic is manufactured in clear transparent. At an additional cost, the CH acrylic can also be delivered in the colour blue. It is possible to fit a cord.

Application of use

- Where the use of silicone materials is prohibited
- For those who are allergic to silicone
- For those with a narrow auditory canal

Suitable for use in

- Automotive industry
- Industrial environments
- Food industry

Benefits

- Custom-made; perfect fit
- Optimal protection
- Nearly invisible in the ear
- No pressure in or on the ear canal
- Ambient sounds remain audible
- Safe and comfortable
- Ventilation of the hearing canal
- Choice of filter depending on the noise level
- Simple to fit and remove from the ear canal
- Easy to clean
- Possibility of a metal ball for detection (e.g. in the food industry)



Attenuation values

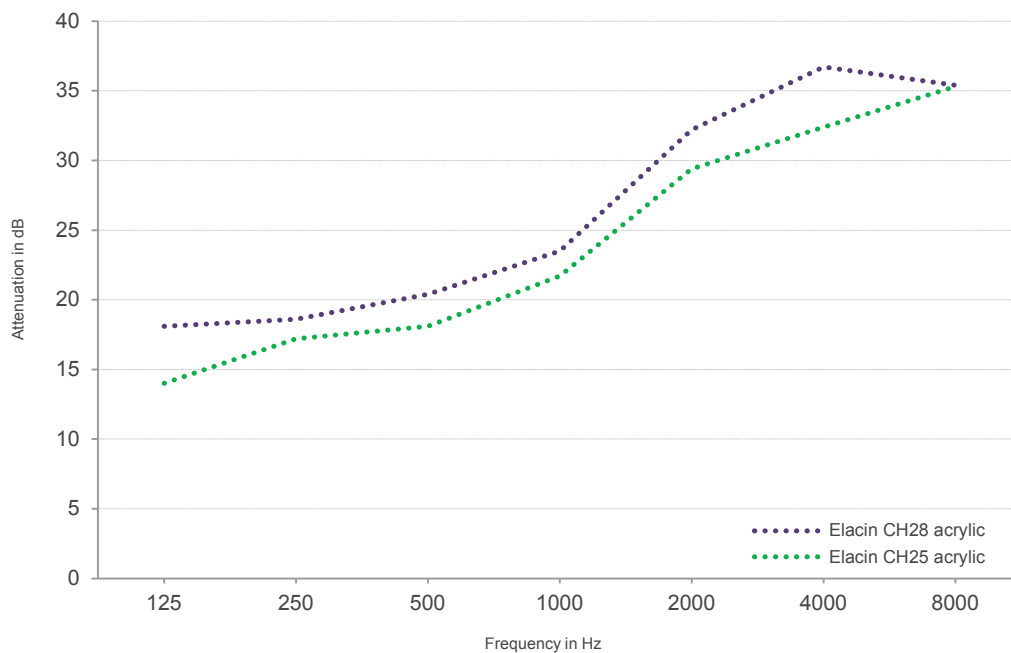
f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
Elacin CH28 acrylic	APVf [dB]	18,1	18,6	20,4	23,5	32,2	36,7	35,4	31	24	21	28
Elacin CH25 acrylic		14,0	17,2	18,1	21,7	29,4	32,4	35,3	29	22	18	25

f in Hz		125	250	500	1000	2000	4000	8000
Elacin CH28 acrylic	Mf [dB]	23,7	24,1	25,9	28,5	34,1	39,5	41,1
Elacin CH25 acrylic		18,6	20,4	22,6	26,2	33,5	35,0	41,2

f in Hz		125	250	500	1000	2000	4000	8000
Elacin CH28 acrylic	Sf [dB]	5,6	5,5	5,5	5,0	1,9	2,8	5,7
Elacin CH25 acrylic		4,6	3,2	4,5	4,5	4,1	2,6	5,9

Attenuation curve

Elacin CH acrylic



Elacin ER

The Elacin ER features a filter with flat attenuation in the frequency range between 125 Hz and 8 kHz. The sound retains its natural timbre and is not distorted. It sounds as if the volume has been turned down on the radio. You do not have to remove ER hearing protectors from your ears to hear speech.

The hearing protectors are also perfectly suitable for people visiting noisy musical environments such as clubs, cafés, concerts and dance events.



Standard earplugs, such as disposable or pre-shaped earplugs, often cut out more sound than necessary. Excessively attenuating the higher frequencies distorts speech and music, making it sound unnatural. People also do not tend to insert these standard earplugs deeply enough in the auditory duct.

As a consequence, harmful noise is not sufficiently attenuated.

ER with cord

The Elacin ER is supplied without a cord. This is because the size of the ER filter does not usually leave enough space for a hole for the cord to be drilled. If your customer still wants a cord, please first contact our Customer Service department. They can provide you with more advice on this matter.

Filters

There is a choice of 3 filter types, depending on the noise level:

- Elacin ER25 filter
- Elacin ER15 filter
- Elacin ER9 filter

Interchangeable

ER filters are the same size and are therefore interchangeable. Some people may use more than one pair of filters, depending on the level of noise. Although changing the filters is possible, we do not recommend changing them every day. There is a risk that the filter slot becomes flexible, decreasing its grip on the filter.

Note!

The Elacin ER9 filter has been specially developed for (orchestral) musicians. The filter does not satisfy the minimum attenuation requirements as specified in the European norm EN 352-2 and is therefore not permitted for use as personal protection equipment (PPE) in industrial environments where average noise levels exceed 90 dB.

Material

The Elacin ER is manufactured from soft FlexFit material (60 Shore) in a clear transparent colour. At request it is possible to have them manufactured in the colours red, blue, black, yellow or green transparent.

Application of use

- Where speech intelligibility is important

Suitable for

- Pilots
- Cabin crew
- Staff and visitors in clubs and cafés
- Staff and visitors in rock concerts and dance events
- Musicians
- DJs

Benefits

- Custom-made for a perfect fit
- Optimal protection
- Speech remains understandable
- Made from soft, light material
- Easy to insert and remove
- Safe and comfortable
- No pressure in the auditory canal
- Interchangeable filters
- Flat attenuation

Attenuation values

	f in Hz	125	250	500	1000	2000	4000	8000
Elacin ER25	APVf [dB]	17,9	19,5	22,5	20,7	21,1	25,2	20,9
Elacin ER15		13,7	14,6	15,2	13,7	14,7	13,0	16,9
Elacin ER9		10,4	9,4	5,8	6,8	10,3	9,2	15,5

H	M	L	SNR
22	21	21	23
14	14	14	16
10	8	8	10

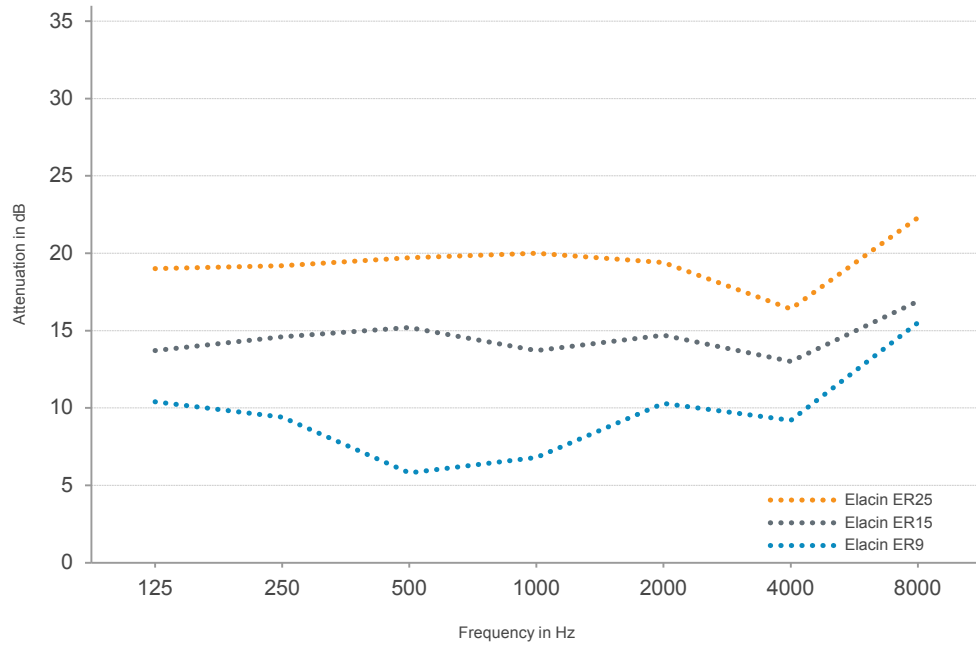
	f in Hz	125	250	500	1000	2000	4000	8000
Elacin ER25	Mf [dB]	22,6	24,0	26,4	24,4	24,4	27,5	25,4
Elacin ER15		17,5	17,6	18,0	16,3	17,3	15,8	20,8
Elacin ER9		14,3	12,2	10,8	10,3	13,5	12,6	19,2

** The attenuation of the ER9 does satisfy all relevant requirements as set in the PPE Directive 89/686/EEG and EN352-2, except for paragraph 4.3.6.*

	f in Hz	125	250	500	1000	2000	4000	8000
Elacin ER25	Sf [dB]	4,7	4,5	3,9	3,7	3,3	2,3	4,5
Elacin ER15		3,8	3,0	2,8	2,6	2,6	2,8	3,9
Elacin ER9		3,9	2,8	5,0	3,5	3,2	3,4	3,7

Attenuation curve

Elacin ER



Elacin Relax (SleepFit)

The Elacin SleepFit is manufactured from the very soft FlexFit material (hardness 40 Shore) and has no filter. The ear moulds are hollow on the inside and therefore very comfortable even when lying on a cushion. Elacin SleepFit reduces among other things the noise of a partner's snoring or the noise of road or air traffic. These ear moulds muffle optimally, without losing touch with the environment. As sound also enters the body via nose, mouth and bones (bone conduction), alarm and warning signals remain perceptible.



At first the Elacin SleepFit might cause some discomfort, but after a while, you won't even notice you are wearing them.

Material

The Elacin SleepFit is manufactured from the very soft FlexFit material (hardness 40 Shore).

Filters

The Elacin SleepFit has no filter inside.

Colour

The Elacin SleepFit is delivered in yellow. However, if desired it can also be ordered in transparent. Due to the hardness of the material another colour is not possible.

Application of use

- People on 'shift work'
- Travelling by plane, car, train, bus etc.
- Concentration during studying or working

Suitable for use in

- Open plan offices

Benefits

- Custom-made; perfect fit
- No protruding parts
- Very soft and light, comfortable to use
- No pressure in or on the hearing canal
- Easy to clean
- Ensures an uninterrupted sleep
- Better to concentrate by attenuating surrounding noises
- Alarm and warning signals remain perceptible

Product portfolio **B2B**
Universal hearing protection

NEW!

Elacin Universal ST24 at work

Elacin Universal ST24 significantly contributes to working safe.

Elacin Universal ST24 is a one-size-fits-all hearing protector, safe and intended for working in noisy environments. Because of its unique design, this hearing protector offers comfortable protection for your ears against excessive ambient noise.

The design is unique and innovative. It has two lamellae and a canal all the way through to accommodate an acoustic filter. It's curved shape is uniquely matched to the average of a large population of ear canals, ensuring a comfortable fit in most ears. The lamellae are very soft to optimize the seal with minimal pressure. The handgrip is shaped such that one intuitively holds and inserts the product correctly without any instruction.

Material

The Elacin Universal ear plug is manufactured out of very soft cytotoxicity-free thermo plastic elastomer (40 Shore).

Filters

The acoustic filter is based on the newly developed helix technology™:

- Average noise reduction of 24 dB
- Flat attenuation
- Good speech intelligibility
- Ambient sounds remain audible

A huge benefit of this filter technology is the open connection to the outside air, preventing a vacuum between the product and the ear drum and allowing ventilation.

Colour

The Elacin Universal ST24 is delivered in yellow.

Application of use

- People working in noisy environments
- Temp workers

Suitable for use in

- Industrial environments
- Situations where speech intelligibility is essential
- Heavy noise
- Impact noise
- Environments where perception of warning signals is critical

“Basically, everywhere where high quality audio is desired but custom made hearing protection is no option for whatever reason.”

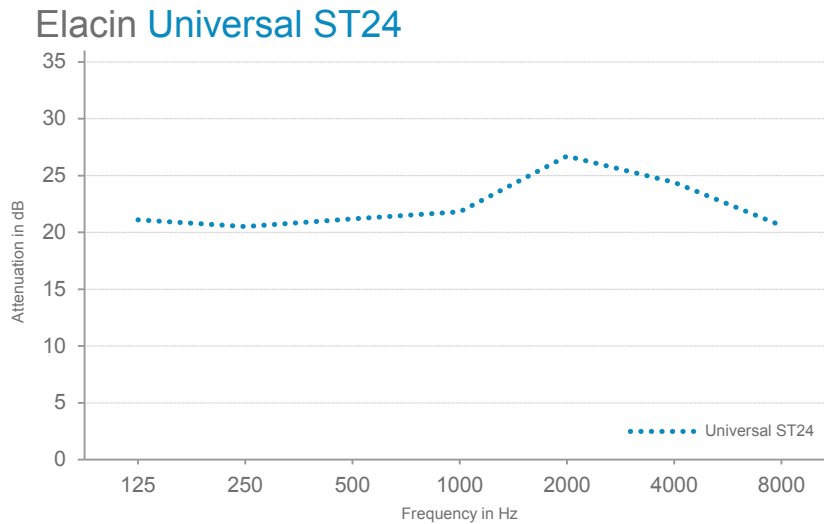
Benefits

- Soft and light
- Easy to insert and remove
- Fits comfortably in the ear
- Reusable
- Flat attenuation

Attenuation values

f in Hz	125	250	500	1000	2000	4000	8000	H	M	L	SNR
APV _r [dB]	21,1	20,5	21,2	21,8	26,7	24,4	20,6	24	23	22	24
M _r [dB]	24,3	23,9	24,6	25,5	29,9	30,8	24,6				
S _r [dB]	3,2	3,4	3,4	3,7	3,2	6,4	4,0				

Attenuation curve



Available in blister packaging and / or table display

Blister packaging

1 pair Universal ST24 + storage box

Description	Art. no.
EI Universal ST24 At Work-NL	891062
EI Universal ST24 At Work-FR	891060
EI Universal ST24 At Work-DE	891059
EI Universal ST24 At Work-EN	891061



Table display

40 pair Universal ST24 pre packed in storage boxes

Description	Art. no.
EI Uni ST24 At Work Bulk-NL	891081
EI Uni ST24 At Work Bulk-FR	891079
EI Uni ST24 At Work Bulk-DE	891078
EI Uni ST24 At Work Bulk-EN	891080



For more information visit our website elacinatwork.com/ust24 or directly contact your Elacin product specialist at **Elacin International B.V.**

Product portfolio **B2B**

Custom-made hearing protection + electronic communication

SafeSound

The SafeSound consists out of a pair of custom-made hearing protectors. Depending on preference the attenuating filter in one of the hearing protectors can be replaced (left or right) by a specially developed earphone: the SoloCom. Result: comfortable and clear mobile communication without removing the hearing protection.



Such a combination will guarantee:

- optimal communication with the surrounding environment (specific RC filter characteristics), and
- optimal understanding of telephone audio (thanks to slightly higher attenuation by the SoloCom filter).

Material

The SafeSound is manufactured from soft FlexFit material (60 Shore).

Filters

There is a choice of 4 filter types, depending on the noise level:

- Elacin RC19 filter
- Elacin RC18 filter
- Elacin RC17 filter
- Elacin RC15 filter

Colour

The SafeSound is delivered in grey. Another colour is not possible.

Application of use

- Safe communication on the work floor, without removal of the hearing protection
- Access to wireless communication in a noisy (work) environment
- Anyone who wants to combine hearing protection and communication

Suitable for use in

- Industrial environments
- Building, assembly and carpentry industries
- Shipyards
- Emergency services

Benefits

- Custom-made; perfect fit
- Hearing protectors suitable for protection and communication means
- Earphone to wear either left or right
- Improved speech intelligibility
- Made of soft and light material
- Easy to insert and remove

Attenuation values

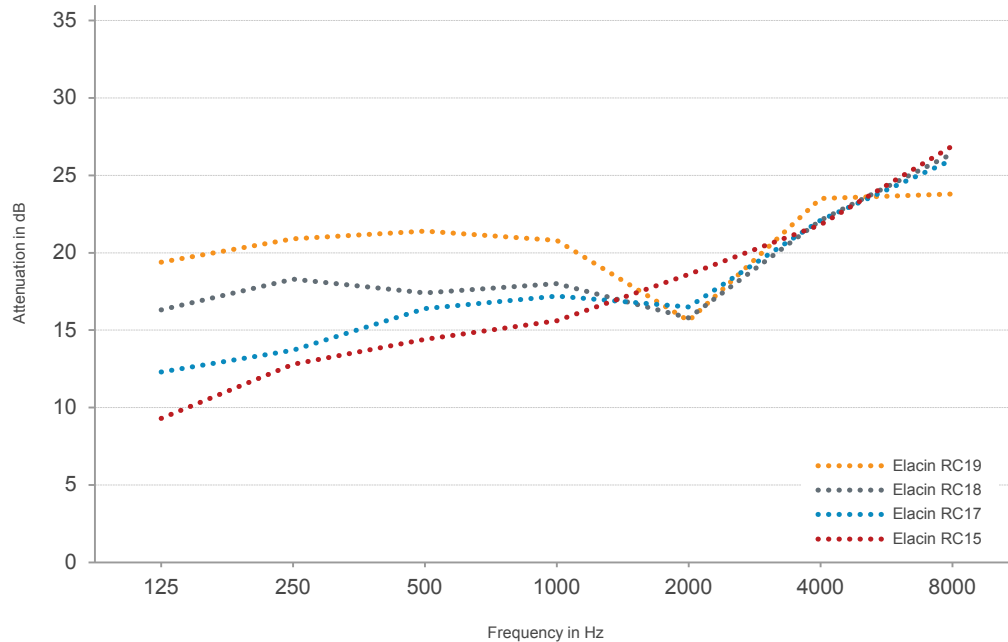
f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
Elacin RC19	APVf [dB]	19,4	20,9	21,4	20,8	15,6	23,5	23,8	18	19	20	21
Elacin RC18		16,3	18,3	17,4	18,0	15,8	22,1	26,4	18	18	18	20
Elacin RC17		12,3	13,7	16,4	17,2	16,5	22,1	26,0	19	17	15	20
Elacin RC15		9,3	12,8	14,4	15,6	18,6	21,8	26,9	20	16	14	19

f in Hz		125	250	500	1000	2000	4000	8000
Elacin RC19	Mf [dB]	23,2	23,3	24,0	23,3	20,1	26,1	29,3
Elacin RC18		19,4	20,6	20,7	20,4	20,0	26,8	31,0
Elacin RC17		14,5	15,9	18,9	19,3	19,9	25,3	31,4
Elacin RC15		12,6	14,5	17,1	18,3	22,1	26,1	30,5

f in Hz		125	250	500	1000	2000	4000	8000
Elacin RC19	Sf [dB]	3,8	2,4	2,6	2,5	4,5	2,6	5,5
Elacin RC18		3,1	2,3	3,3	2,4	4,2	4,7	4,6
Elacin RC17		2,2	2,2	2,5	2,1	3,4	3,2	5,4
Elacin RC15		3,3	1,7	2,7	2,7	3,5	4,3	3,6

Attenuation curve

SafeSound



Elacin SoloCom

In noisy environments, hearing protection often constitutes an obstacle in using any means of communication such as a telephone. Incoming calls are often not heard, and when they are heard, hearing protection equipment is usually a hindrance during conversation. Result: the user removes the hearing protection, and thereby the protection is nullified. To resolve this problem, the SafeSound • SoloCom concept was developed. This feature ensures a user will not miss an incoming call and will be able to have a conversation without removing the hearing protector. This provides uninterrupted hearing protection.



An extraordinary feature that the SoloCom comes equipped with is an integrated sound filter. There is a choice of three filters; when used in combination with one of the four SafeSound filters, the degree of attenuation can be tuned to the ambient noise level. These features prevent over attenuation while optimising perceived sounds.

The Elacin SoloCom can be connected to a two-way radio (via handset). The SoloCom Radiophone (RP) is only provided with a speaker for connection to a handset.

Together, the SoloCom and SafeSound combination protects the user optimally against background noise. However, the SoloCom's sound level is not limited. It therefore stands to reason that the SoloCom should not be used for extended periods if the user was to listen to MP3 music on their cell, for instance. It is a product that is intended to offer maximal communication capacity in work-related (emergency) situations.

Filters

Depending on the noise level there is a choice of three different filters, which can only be used in combination with one of the 4 filter types from the SafeSound-program^{*)}:

- Elacin RC19 filter
- Elacin RC18 filter
- Elacin RC17 filter
- Elacin RC15 filter

^{*)} See SafeSound.

Application of use

- Safe communication in the workplace, without having to take the hearing protection out of the ear.
- Access to wireless communication in a noisy (work) environment.
- Anyone who wants to combine hearing protection and communication.

Suitable for use in

The Elacin SoloCom is designed to provide maximum communication in work related (crisis) situations. E.g. in industrial environments, construction, assembly and carpentry companies, shipyards, emergency services and security.

Benefits

- From hearing protector to communication possibility in one operation
- For combination with two-way radio or mobile phone
- Maximum speech intelligibility especially in crisis and/or noisy environments
- Fits perfectly when mobility is important

Attenuation values (EN352-2) TP and RP

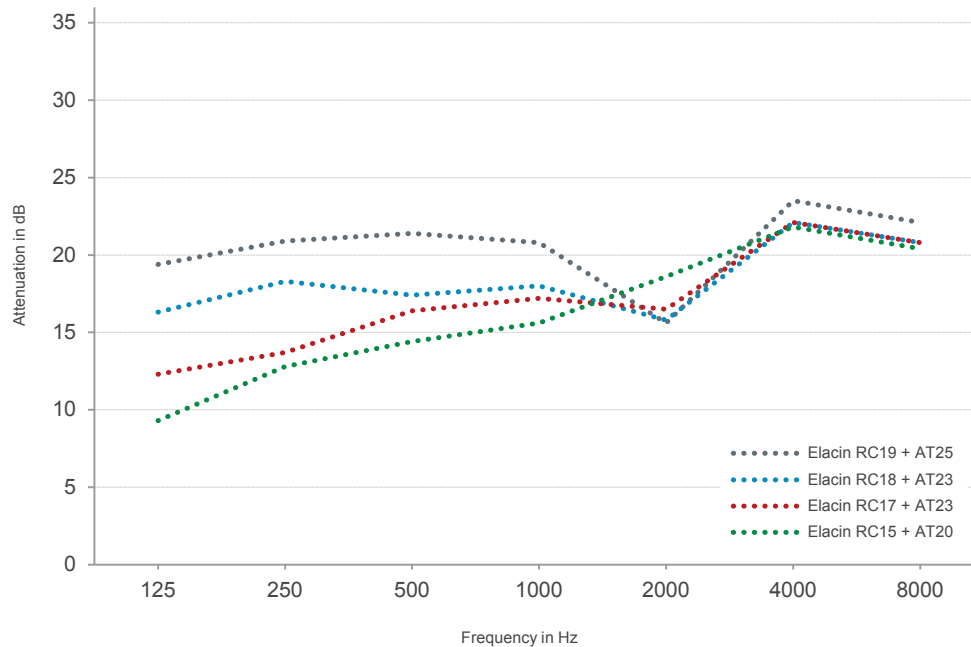
f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APVf [dB]	Elacin RC19 + AT25	19,4	20,9	21,4	20,8	15,6	23,5	22,1	18	19	20	21
	Elacin RC18 + AT23	16,3	18,3	17,4	18,0	15,8	22,1	20,8	18	18	18	20
	Elacin RC17 + AT23	12,3	13,7	16,4	17,2	16,5	22,1	20,8	18	17	15	19
	Elacin RC15 + AT20	9,3	12,8	14,4	15,6	18,6	21,8	20,4	19	16	14	19

f in Hz		125	250	500	1000	2000	4000	8000
Mf [dB]	Elacin RC19 + AT25	23,2	23,3	24,0	23,3	20,1	26,1	26,5
	Elacin RC18 + AT23	19,4	20,6	20,7	20,4	20,0	26,8	25,9
	Elacin RC17 + AT23	14,5	15,9	18,9	19,3	19,9	25,3	25,9
	Elacin RC15 + AT20	12,6	14,5	17,1	18,3	22,1	26,1	25,5

f in Hz		125	250	500	1000	2000	4000	8000
Sf [dB]	Elacin RC19 + AT25	3,8	2,4	2,6	2,5	4,5	2,6	4,4
	Elacin RC18 + AT23	3,1	2,3	3,3	2,4	4,2	4,7	5,1
	Elacin RC17 + AT23	2,2	2,2	2,5	2,1	3,4	3,2	5,1
	Elacin RC15 + AT20	3,3	1,7	2,7	2,7	3,5	4,3	5,1

Attenuation curve

Elacin SoloCom



SoloCom Radiophone

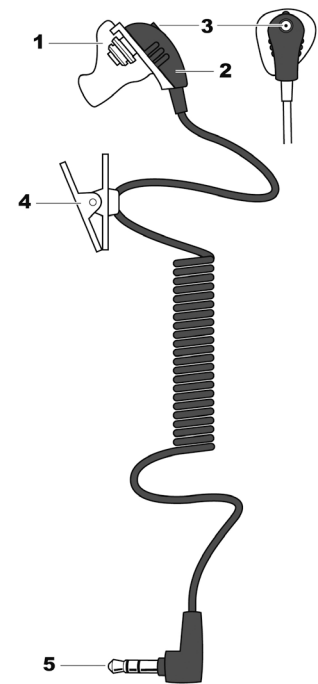
Equipped with a speaker for connection to a handset / Push-to-Talk unit.

Technical specifications

1. SafeSound hearing protector
2. SoloCom earphone
3. Sound filter
4. Shirt clip
5. Connector

Electrical data (EN352-6)

SoloCom RP	
Input [mV]	41
Output [dB(A)]	82



Elacin SoloCom Lo

The Elacin SoloCom Lo equals Elacin SoloCom. However, with the addition of a special sound attenuating circuit which is integrated into the connector and reduces the sound and thus the risk of hearing damage. The SoloCom Lo is suitable for connection to two-way radio or remote speaker microphone.



Attenuation values (EN352-2)

	f in Hz	125	250	500	1000	2000	4000	8000
Elacin RC19 + AT25	APVf [dB]	19,4	20,9	21,4	20,8	15,6	23,5	22,1
Elacin RC18 + AT23		16,3	18,3	17,4	18,0	15,8	22,1	20,8
Elacin RC17 + AT23		12,3	13,7	16,4	17,2	16,5	22,1	20,8
Elacin RC15 + AT20		9,3	12,8	14,4	15,6	18,6	21,8	20,4

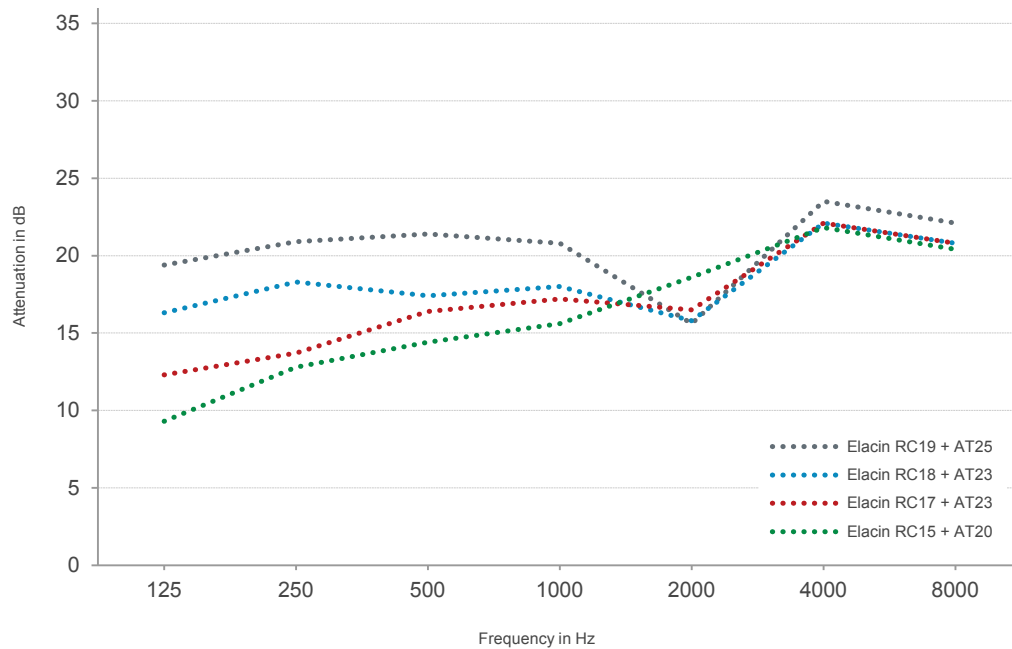
	H	M	L	SNR
	18	19	20	21
	18	18	18	20
	18	17	15	19
	19	16	14	19

	f in Hz	125	250	500	1000	2000	4000	8000
Elacin RC19 + AT25	Mf [dB]	23,2	23,3	24,0	23,3	20,1	26,1	26,5
Elacin RC18 + AT23		19,4	20,6	20,7	20,4	20,0	26,8	25,9
Elacin RC17 + AT23		14,5	15,9	18,9	19,3	19,9	25,3	25,9
Elacin RC15 + AT20		12,6	14,5	17,1	18,3	22,1	26,1	25,5

	f in Hz	125	250	500	1000	2000	4000	8000
Elacin RC19 + AT25	Sf [dB]	3,8	2,4	2,6	2,5	4,5	2,6	4,4
Elacin RC18 + AT23		3,1	2,3	3,3	2,4	4,2	4,7	5,1
Elacin RC17 + AT23		2,2	2,2	2,5	2,1	3,4	3,2	5,1
Elacin RC15 + AT20		3,3	1,7	2,7	2,7	3,5	4,3	5,1

Attenuation curve

Elacin SoloCom Lo



Electrical data (EN352-6)

SoloCom Lo				
Input [mV]	95,7			
Output [dB(A)]	82,0			
Cabel				
Length Radio- / Telephone	mm	1050	1100	1150

Elacin SoloCom Tube

Because of the applicable requirements, both SoloCom and BoomMic may not be used in hazardous areas. In order to provide a solution for this application, Elacin introduces an expansion of the modular SafeSound • SoloCom concept: **Elacin SoloCom Tube.**



Potentially explosive environments

In hazardous areas, such as the petrochemical industry, Ex -certified audio sets are equipped with a widely used sound tube. This sound tube comes standard with a lamellar shaped cap that is pushed into the ear. A solution that offers no protection against ambient noise, while in many cases this is a requirement by Health & Safety regulations. Another disadvantage is that due to insufficient attenuation of ambient noise, the user tends to increase the volume of the two-way radio higher than what is safe for the hearing. In addition there is the annoyance of the lamellar cap that regularly comes loose from the ear.

With the arrival of the SoloCom Tube, we offer a solution to these concerns. It is a variant of the SoloCom, where the speaker is omitted and a connection for the tube is made. The ambient noise is excluded which results in a better speech intelligibility. This ensures that the volume of the two-way radio can be reduced and therewith the risk of damage to the ears is minimized.

Noise filter

As with the other SoloCom products, the SoloCom Tube will be combined with a SafeSound pair of custom-made hearing protectors. The combination is available in five attenuation values. The value can be adjusted to the prevailing noise level. This prevents over attenuation and thus the feeling of being closed off, which, besides being a nuisance, can also lead to dangerous situations. Due to the attenuation of the ambient noise it's user will naturally decrease the volume of the two-way radio, so that the hearing is loaded considerably less.

Conclusion

The combination of a SafeSound hearing protector on one side and a SoloCom Tube on the other side, ensures good communication with the surrounding area and a much better speech intelligibility of the two-way radio or telephone. Moreover, the hearing is much better protected against environmental noise.

Filters

There is a choice of four filter types^{*)}, depending on the noise level:

- Elacin RC19 filter
- Elacin RC18 filter
- Elacin RC17 filter
- Elacin RC15 filter

*) See also SafeSound

Application of use

- Safe communication in the workplace, without having to take the hearing protection out of the ear.
- Access to wireless communication in a noisy (work) environment.
- Anyone who wants to combine hearing protection and communication.
- Where (Otto) listening devices are already in use
- The wearing comfort of the listening device hinders
- The environmental noise makes hearing protection necessary

Suitable for

- Industrial environments
- Construction
- Assembly and carpentry companies
- Shipyards
- Emergency services
- Security

Benefits

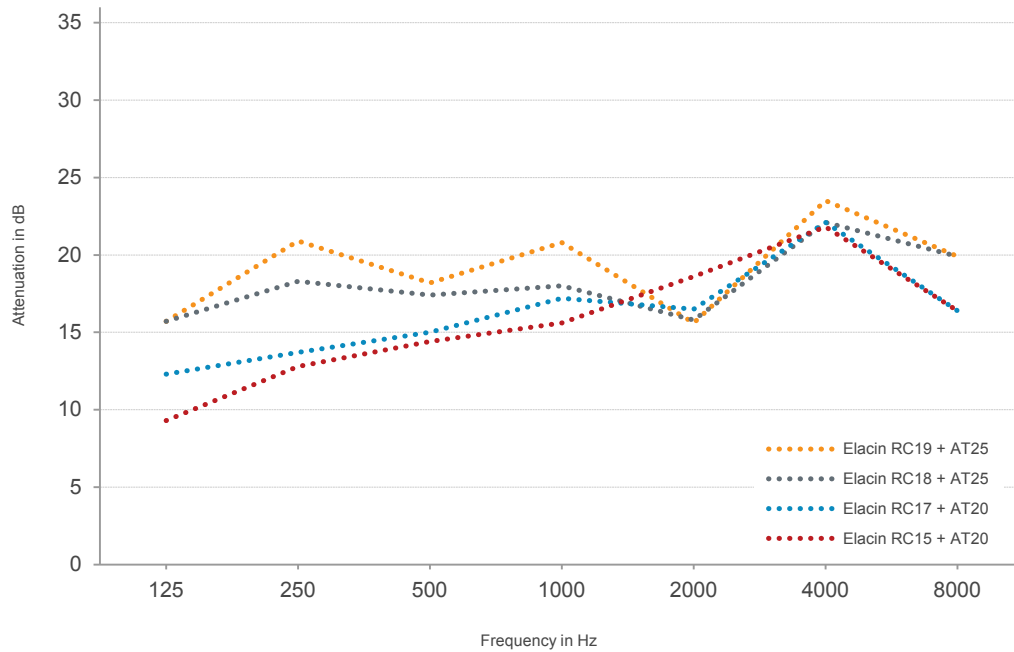
- Custom-made, perfect fit
- Choice of various filter types; no over attenuation
- Optimal speech intelligibility
- Safe and comfortable
- High wearing comfort

Attenuation values

f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APVf [dB]	Elacin RC19 + AT25	15,7	20,9	18,2	20,8	15,6	23,5	19,9	18	19	19	20
	Elacin RC18 + AT25	15,7	18,3	17,4	18,0	15,8	22,1	19,9	18	18	17	20
	Elacin RC17 + AT20	12,3	13,7	15,0	17,2	16,5	22,1	16,4	18	17	15	19
	Elacin RC15 + AT20	9,3	12,8	14,4	15,6	18,6	21,8	16,4	19	16	14	19
f in Hz		125	250	500	1000	2000	4000	8000				
Mf [dB]	Elacin RC19 + AT25	19,0	23,3	20,2	23,3	20,1	26,1	24,6				
	Elacin RC18 + AT25	19,0	20,6	20,7	20,4	20,0	26,8	24,6				
	Elacin RC17 + AT20	14,5	15,9	17,8	19,3	19,9	25,3	21,7				
	Elacin RC15 + AT20	12,6	14,5	17,1	18,3	22,1	26,1	21,7				
f in Hz		125	250	500	1000	2000	4000	8000				
Sf [dB]	Elacin RC19 + AT25	3,3	2,4	2,0	2,5	4,5	2,6	4,7				
	Elacin RC18 + AT25	3,3	2,3	3,3	2,4	4,2	4,7	4,7				
	Elacin RC17 + AT20	2,2	2,2	2,8	2,1	3,4	3,2	5,3				
	Elacin RC15 + AT20	3,3	1,7	2,7	2,7	3,5	4,3	5,3				

Attenuation curve

Elacin Solocom Tube



Electrical data (EN352-6)

SoloCom Tube combined with Otto Surveillance kit	
Input [mV]	24
Output [dB(A)]	82

Elacin BoomMic

In noisy environments, hearing protection often is an obstacle when being used in combination with any means of communication such as a telephone. Incoming calls are often not heard and when they are, hearing protection is usually a hindrance during a conversation. Result: the user removes the hearing protection and thereby the protection is nullified.

To solve this problem, the SafeSound hearing protector was developed, to which a means of communication can be connected, for instance a mobile phone. This feature ensures a user would not miss incoming calls and would be able to have a conversation without removing the hearing protector. This provides uninterrupted hearing protection.

The Elacin BoomMic is equipped with a 'noise-cancelling' boom microphone. This microphone is positioned near the user's mouth, through which background noise is reduced so that speech can be more easily understood. It is also equipped with a pushbutton, connected to electronic circuitry. This configuration ensures impedance adaptation and radio screening. It also protects the user against extreme sound levels that could be produced by the communication device itself (with the exception of the NS version).

The Elacin BoomMic is available in two versions:

- BoomMic Telephone (TP)
- BoomMic Radiophone (RP)

The Elacin BoomMic Telephone connects to either a mobile or a DECT phone. It is equipped with a pushbutton that allows the user to accept or interrupt a conversation. The pushbutton feature is not available in the BoomMic Telephone NS. The act of accepting or interrupting a conversation is done instead via the communication device.

The Elacin BoomMic Radiophone version connects to a two-way radio. In this case the pushbutton functions as a Push-To-Talk button (PTT) and is used to regulate a conversation.

Together, the BoomMic and SafeSound combination protects the user optimally against background noise. However, the BoomMic's sound level is not limited. It therefore stands to reason that the BoomMic should not be used for extended periods if the user was to listen to MP3 music on their cell, for instance.

Just as the SoloCom, the BoomMic is also equipped with a special noise filter in the housing. There are three filters for attenuating the ambient noise level – in combination with one of the four filters of the SafeSound product. These features prevent over attenuation while maintaining speech intelligibility. This filter also ensures good auditory duct ventilation, which prevents the user from feeling cut-off from his/her environment.

Application of use

- In an environment with high noise levels where hearing protection is essential.
- Where hearing protection, as well as the need for using some means to communicate is important.



Suitable for

- Industrial environments
- Building, assembly and carpentry industries
- Shipyards

Benefits

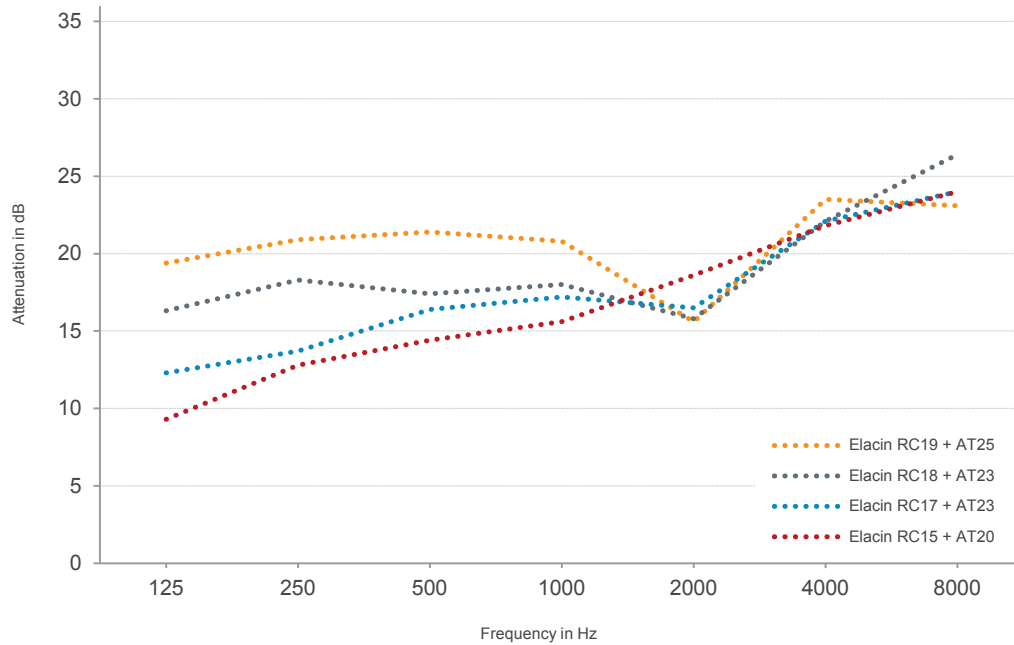
- Can be combined with cell phone, DECT or two-way radio
- Suitable in situations where mobility is required
- Equipped with a noise-cancelling boom microphone
- Optimal speech intelligibility (for the sender and the receiver), thanks to reduced background noise
- Prevents over attenuation
- Prevents feeling of being cut-off from one's environment
- Continues auditory canal ventilation
- Wide selection of filters based on noise levels
- Can be worn on either left or right ear
- No need to remove hearing protectors during communication
- Changes from hearing protector to communication device in a single action
- Perfect fit for prolonged use
- Quick and easy to clean
- Optionally available with metal security bearing and metal shirt clip (e.g. for food industry).

Attenuation values (EN352-2)

f in Hz		125	250	500	1000	2000	4000	8000	H	M	L	SNR
APVf [dB]	Elacin RC19 + AT25	19,4	20,9	21,4	20,8	15,6	23,5	23,1	18	19	20	21
	Elacin RC18 + AT23	16,3	18,3	17,4	18,0	15,8	22,1	26,4	18	18	18	20
	Elacin RC17 + AT23	12,3	13,7	16,4	17,2	16,5	22,1	24,0	19	17	15	20
	Elacin RC15 + AT20	9,3	12,8	14,4	15,6	18,6	21,8	24,0	20	16	14	19
f in Hz		125	250	500	1000	2000	4000	8000				
Mf [dB]	Elacin RC19 + AT25	23,2	23,3	24,0	23,3	20,1	26,1	29,4				
	Elacin RC18 + AT23	19,4	20,6	20,7	20,4	20,0	26,8	31,0				
	Elacin RC17 + AT23	14,5	15,9	18,9	19,3	19,9	25,3	31,4				
	Elacin RC15 + AT20	12,6	14,5	17,1	18,3	22,1	26,1	27,5				
f in Hz		125	250	500	1000	2000	4000	8000				
Sf [dB]	Elacin RC19 + AT25	3,8	2,4	2,6	2,5	4,5	2,6	6,3				
	Elacin RC18 + AT23	3,1	2,3	3,3	2,4	4,2	4,7	4,6				
	Elacin RC17 + AT23	2,2	2,2	2,5	2,1	3,4	3,2	5,4				
	Elacin RC15 + AT20	3,3	1,7	2,7	2,7	3,5	4,3	3,5				

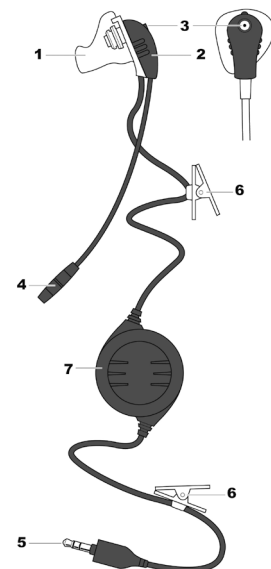
Attenuation curve

Elacin BoomMic



Technical specifications

1. SafeSound hearing protector
2. BoomMic
3. Sound filter
4. Boom microphone
5. Connector
6. Shirt clip
7. Push button (not applicable for the TP version)



SoloCom Telephone (TP)

Equipped with a speaker and microphone for connection to a mobile telephone or DECT.

SoloCom Radiophone (RP)

Equipped with a speaker for connection to a handset / PTT unit.

Electrical data (EN352-6)

Elacin BoomMic TP & NS							Max.
Input [mV]	13	22	39	49	70		---
Output [dB(A)]	70	75	80	82	85		105

Elacin BoomMic RP							Max.
Input [mV]	34	61	107	135	191		---
Output [dB(A)]	70	75	80	82	85		96

elacin {
hearing protection

Hygiene Solutions

Elacin Hygiene

Risk of blockage in the sound canal

Working in an industrial environment often involves being exposed to dust, lubricants, smoke and other harmful materials. Hearing protectors attract this kind of material. When combined with ear wax, there is also a risk of the sound canal becoming blocked, meaning that sound may be distorted or no longer heard.

Elacin now offers the Hygiene kit and Hygiene^{PLUS} kit, allowing you to look after your hearing protectors while still being aware of ambient noise. This combination of cleaning products allows you to clean your hearing protectors either daily or monthly as necessary.

Using the Elacin Hygiene and Hygiene^{PLUS} kit not only ensures that hearing protectors have a long service life, but also ensures that they offer reliable protection (against noise-induced hearing loss) for people wearing them. An additional benefit for the wearer is that clean hearing protectors reduce the chance of developing ear infections.

Use our hygiene kits for maximum protection

For hearing protectors to be as effective as possible, they should be worn throughout the period of exposure.



Hygiene kit

Elacin Hygiene kit for easy daily cleaning of your hearing protectors.

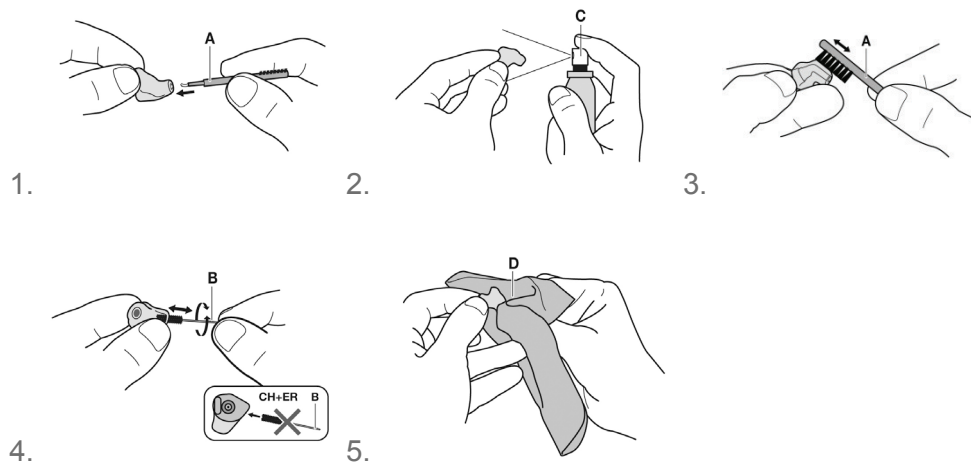
This kit consists of the following products:

- 1x wax remover tool + brush
- 1x towel
- 2x sprays
- 4x brushes
- 1x user manual



At the end of every working day, spray a little disinfectant spray on the hearing protectors and use the little brush to remove excess dirt. Then use the wax remover tool supplied, if necessary, to remove ear wax from the sound canal.

Finally, dry the hearing protectors using the towel and store them in the case.



HygienePLUS kit

Elacin Hygiene^{PLUS} kit for a thorough monthly cleaning of your hearing protectors.

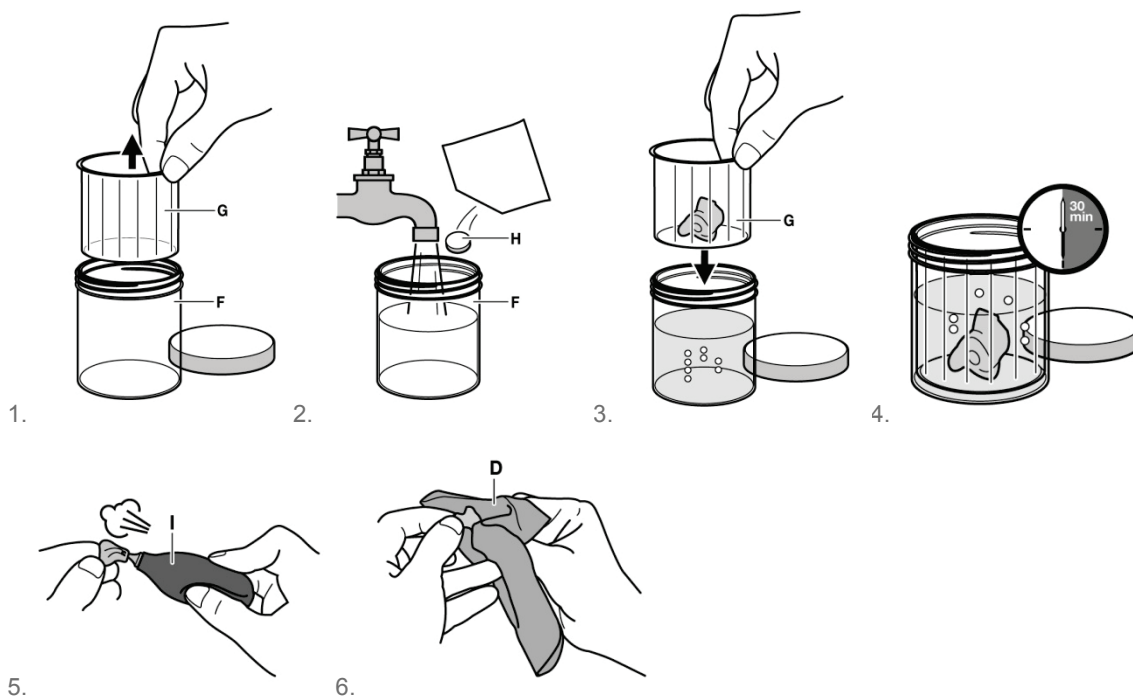
This kit consists of the following products:

- 1x filter exchange tool
- 1x towel
- 1x cleaning box
- 1x air blower
- 12x effervescent tablets
- 1x user manual



As well as straightforward daily cleaning, we also recommend that you clean your hearing protectors thoroughly every month. It is desirable, but not essentially necessary (except for Elacin ER), to remove the acoustic filters before cleaning. When the hearing protector is cleaned with the filter the attenuation can be slightly higher the first 24 hours after cleaning. After 24 hours of drying of the filter is again an optimal device performance.

Dry the outside of the hearing protectors with the towel and use the air blower to dry the sound canal. Once you are sure that the sound canal is completely dry, put the filters back into the hearing protectors and store the hearing protectors in the case.



Hygiene Value Pack

To ensure that your hearing protectors are cleaned as effectively as possible, choose the Elacin Hygiene Value Pack — a combination of both cleaning kits at an attractive price.

The contents of both kits are as described above.



elacin { a sound
hearing protection experience

elacin.com | elacinatwork.com