

Aero Breath


Product Instruction



"Start of new experience for breathing"

It's the time to start new experience
with wearable face mask-type air purifier "Aero Breath"



An exploded view diagram of a face mask assembly. From left to right, it shows the mask's main body, a circular fan, a cylindrical filter housing, a black pleated filter, and a white circular cap. A fan of light rays emanates from the cap, pointing towards the right. The entire assembly is rendered in a clean, white, minimalist style against a light gray background.

Disposable face mask causes uncomfortable using experiences, high social cost and environmental pollution.

Aero Breath which has Long life-filter and positive pressure fans resolves all those problems.

It was developed for these people

People who want comfortable breathing when they work out

People who want definite block harmful substances from out door

People who want cost-effectiveness and simple maintenance

People who want to use hygienic product

Now,
with CALAB Aero Breath
simply resolves.



What is Aero Breath?

It is wearable face mask-type air purifier for a new changing of breathing.

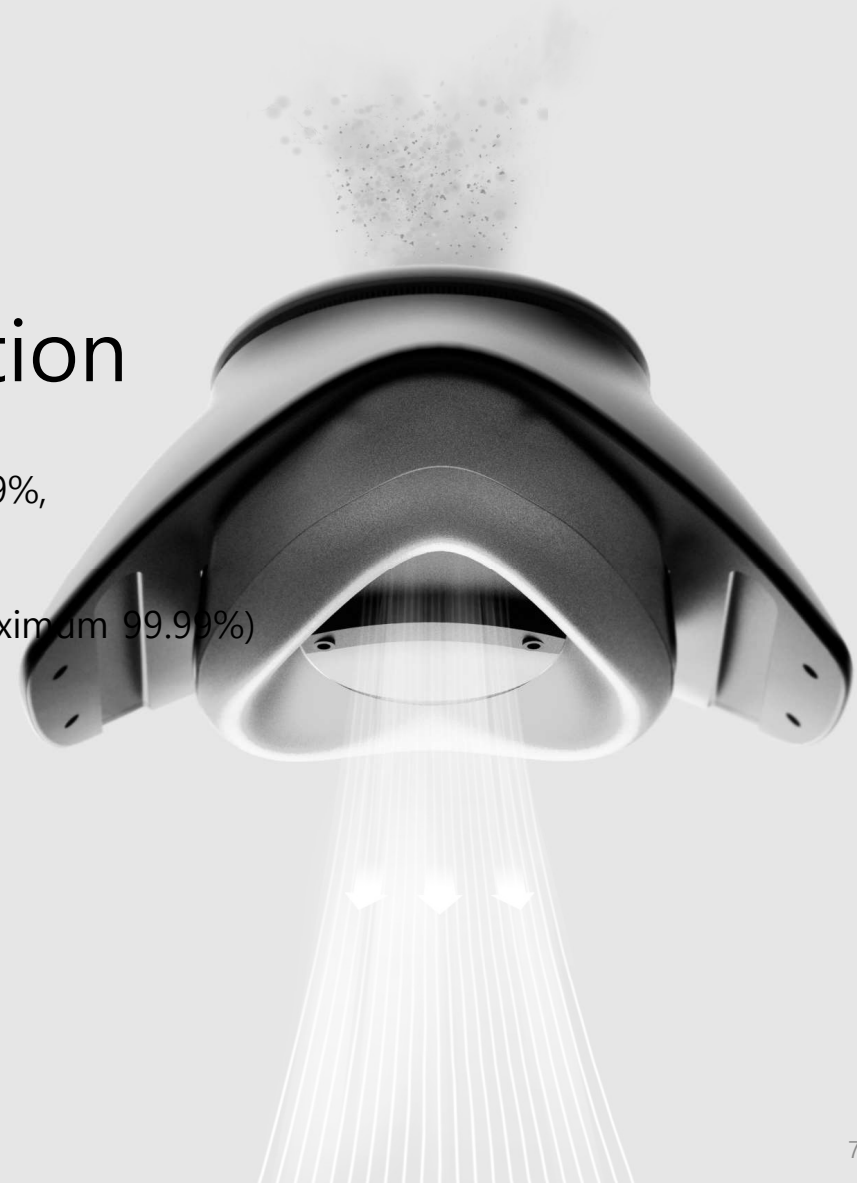


More about
Aero Breath

01 Dust Collection/Purification

Block ultrafine particles at 0.3 μm level maximum 99.99%,
and remove harmful gas and odor.

Besides, eliminate bacteria(suspended pneumoniae maximum 99.99%)



Only one filter can **remove 99.99%** ultrafine dust, bacteria and virus



Fine dust
remove



Bacteria
remove



Carbon dioxide
remove



harmful gas
remove

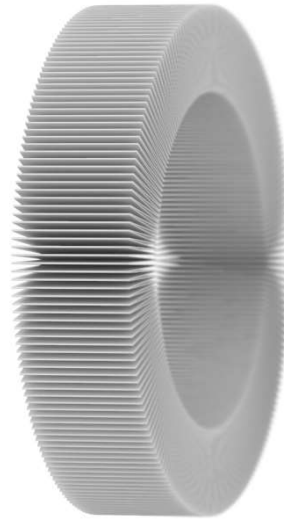


Ultrafine dust
remove

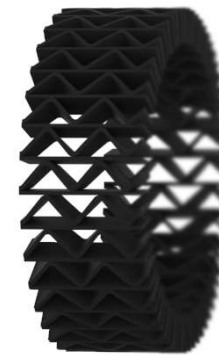
Blocking Harmful Substances Entering Respiratory Inflow



1 Multi Layer Filter
primarily Remove
large dust and droplet



2 Fine Particle Filter
remove ultrafine
particle/bacteria/
virus



3 Activated Carbon Filter
remove harmful gas/odor

Ultrafine Particle TEST



	FLOW	RESISTANCE	PENETRATION	DUST COLLECTION EFFEICIENCY(%)
1	32.0	8.1	0.014	99.99%
2	32.0	8.1	0.018	99.98%
3	32.0	8.7	0.004	99.99%

Remove maximum 99.99% 0.3 μ m particle which is Much smaller than Ultrafine dust(PM2.5, <2.5 μ m)

Harmful gas / Deodorization TEST



	#1
Acetic acid	99.9 exceeded
Formaldehyde	64.7
Acetaldehyde	96.4

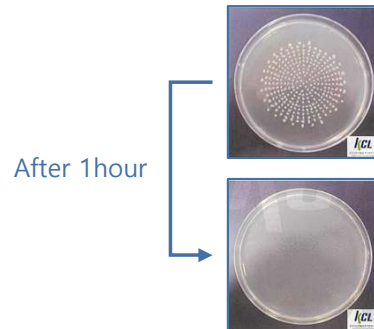
Remove over 99% Acetic acid and stench from outside

Harmful Bacteria TEST



CFU	Colony Forming Unit
Test strains	Klebsiella pneumoniae ATCC 4352(harmful pneumonia)
Chamber size	8m ²
Operating time	1hour
Result value concentration	Feller Conversion Table apply
Client proposal condition	ISO 16000-36:2018 (but, product operating time : 1hour)

Harmful streptococcus pneumoniae



• Test result

Test Items	Test method	Test result			Test environment
		Concentration before uptime	Concentration after uptime	Reduction rate (%)	
Microorganism reduction test (pneumonia)	Client proposal	2.7 x 10 ⁴	< 10	99.9%	(23.0 ± 0.2) °C (50.5 ± 2.0) % R.H.

Remove harmful streptococcus pneumoniae floating in air [99.9%](#)

Charger Cradle Sterilization Test



CFU	Colony Forming Unit
Tested virus category	Escherichia coli ATCC 25922
Sample	Product : [UV-C LED 3.0]
Client proposal method	Measure bacterial reduction rate after exposing the inoculated at a distance of 4cm from the LED lamp for 100 seconds

- Test result

Test category		Test method	Test result			Test environment
			Initial concentration (CFU/mL)	100sec after concentration (CFU/mL)	Reduction rate (%)	
Antibacterial test by E. coli	BLANK	Client proposal	1.7 x 10 ⁴	1.7 x 10 ⁴	-	(37.0 ± 0.1) °C (33.5 ± 0.2) % R.H.
	UV-C LED 3.0		1.7 x 10 ⁴	< 10	99.9%	

Remove 99.9% the E.coli from outside contact by LED lamp

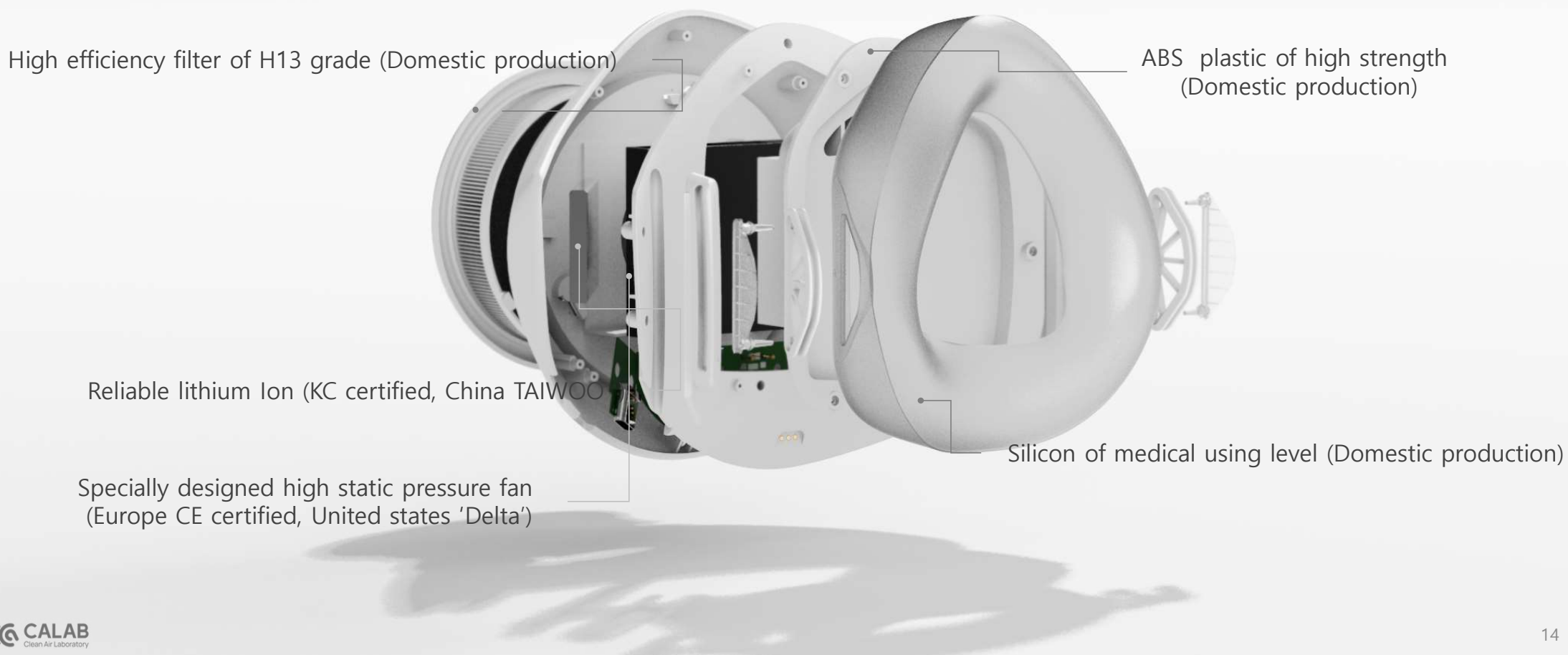
02 Safety

We cooperate with companies which have remarkable technical skills each field in Korea, United states, and China



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Produce through **proven parts and manufacturing facilities** at domestic and abroad



Medical using Level Silicon TEST

SGS		Test Report No. F69010/LF-CTSAYA20-1775		Issued Date : 2020. 03. 28		Page 2 of 7	
Sample No.	: AVAA20-1775-001	Sample Description	: SH060L_SH0600USW00	Item No./Part No.	: N/A	Materials	: N/A
Heavy Metals							
Test Items	Unit	Test Method	MDL	Results			
Cadmium (Cd)	mg/kg	With reference to IEC 62321-6:2013 (Determination of Cadmium by ICP-OES)	0.5	N.D.			
Lead (Pb)	mg/kg	With reference to IEC 62321-6:2013 (Determination of Lead by ICP-OES)	5	N.D.			
Mercury (Hg)	mg/kg	With reference to IEC 62321-4:2013 (Determination of Mercury by ICP-OES)	2	N.D.			
Hexavalent Chromium (Cr VI)*	mg/kg	With reference to IEC 62321-7:2017 (Determination of Hexavalent Chromium by Colorimetric Method using UV-Vis and Microwave system and for with reference to IEC 62321-5:2013, determination of Chromium by ICP-OES)	8	N.D.			
Flame Retardants - PBBs/PBOs							
Test Items	Unit	Test Method	MDL	Results			
Mono-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Di-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Tri-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Tetra-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Penta-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Hexa-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Hepta-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Octa-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Nona-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Deca-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Mono-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Di-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Tri-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Tetra-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Penta-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Hexa-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Hepta-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Octa-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Nona-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			
Deca-bromodiphenyl ether	mg/kg	With reference to IEC 62321-6:2015 (GC-MS)	5	N.D.			

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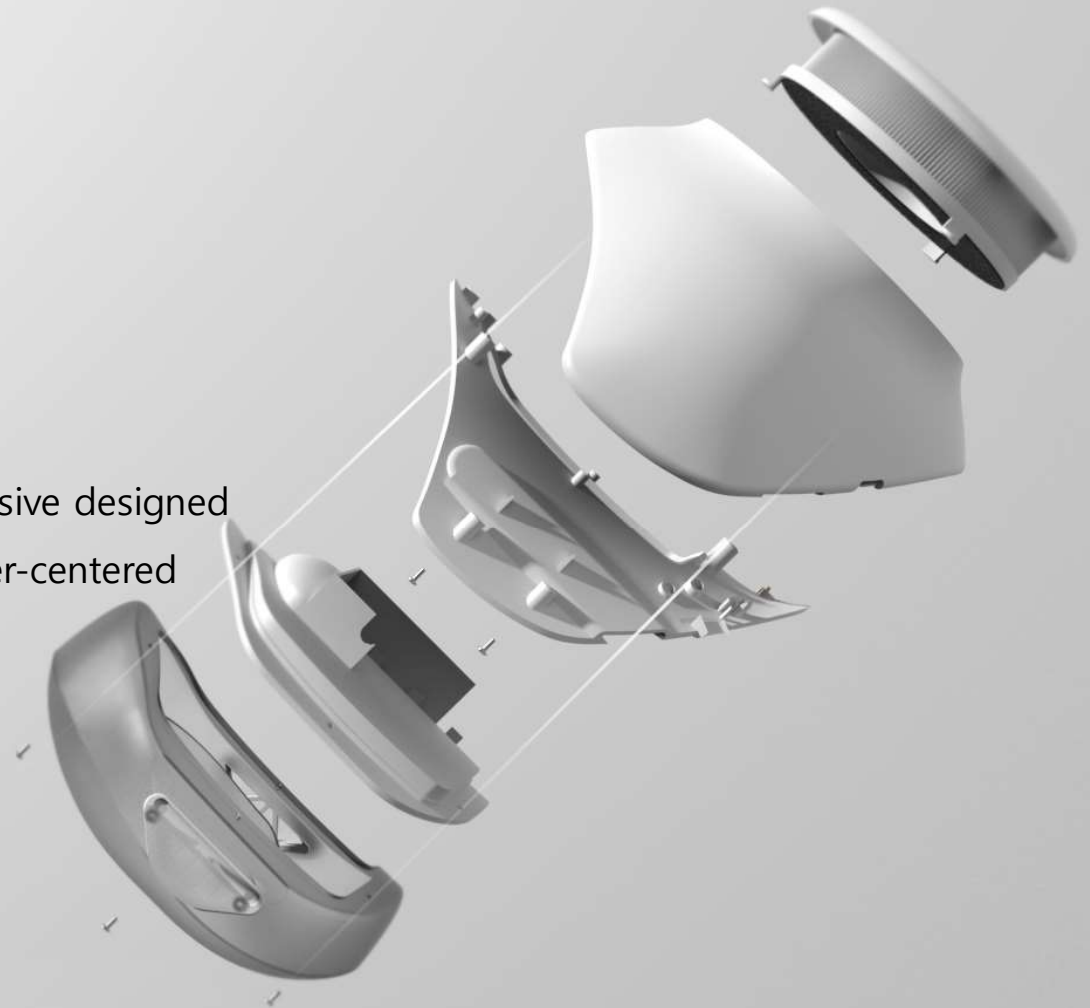
Heavy metal/Frame retardant/ phthalate/
Halogen compounds



All categories
not Detected

03 Technical Skills

Many patents which are technology-intensive designed based on engineering experience and user-centered designed considering usage environment.



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Aero Breath 4 core functions



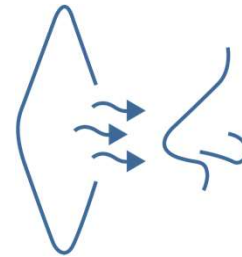
Independent purity space

Offer own purity air wherever you go
by
blocking Fine dust and harmful gas



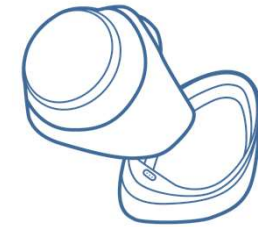
Longer term filter

3Months available filter
by large area designed



Pleasant breathing
environment

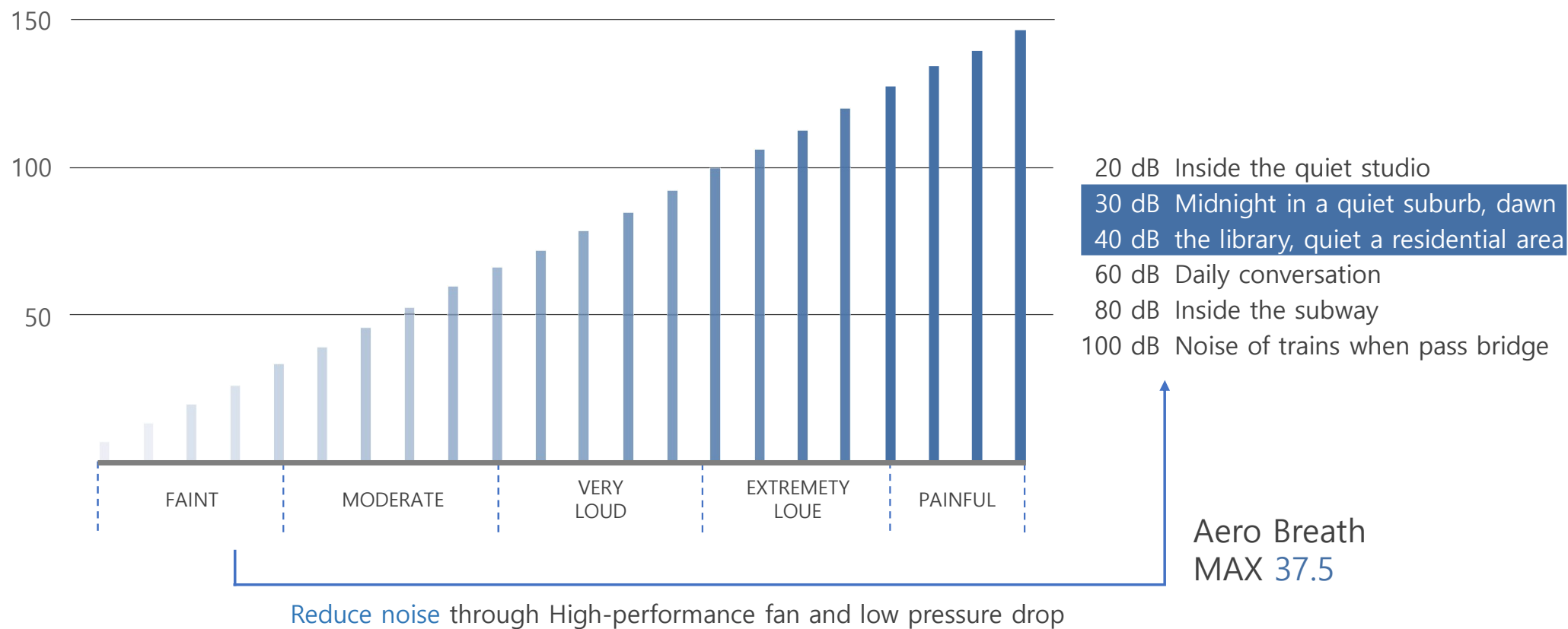
Offer comfortable breathing
as if not wearing mask
with High-performance fan



Sterilization wireless charging

UV-C LED mask sterilization
through cradle
when you charge

Low-noise Design even using in the Library

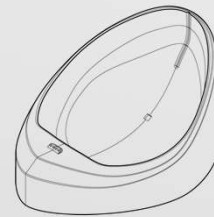


Multi Function Holder

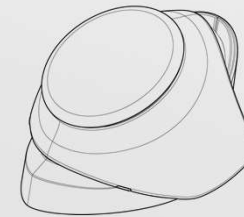


Step

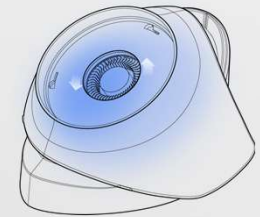
01



02

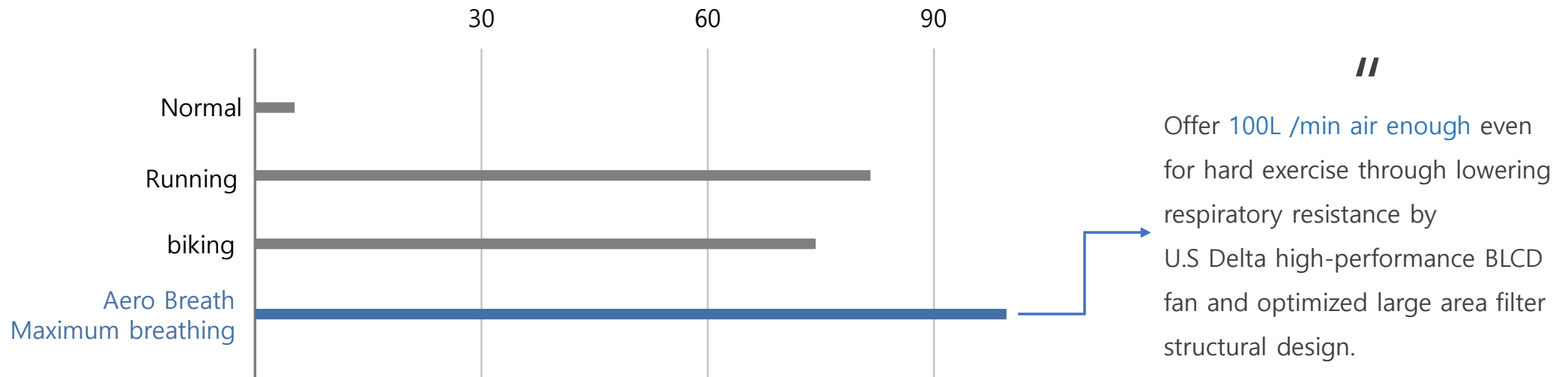


03

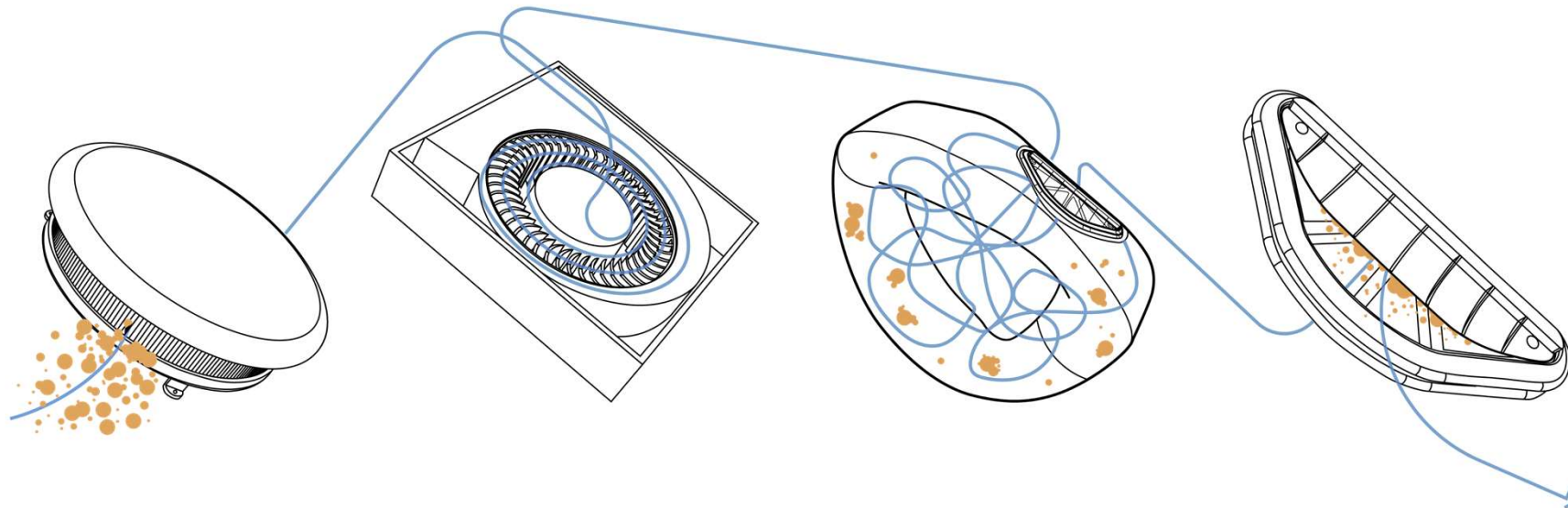


Remove 99.9% surface bacteria and inside humidity automatically through Wireless charging cradle, UV-C sterilization and dry and offer hygienic environment.

Offer Comfortable Breathing for Hard Exercise



Aero Breath Technology



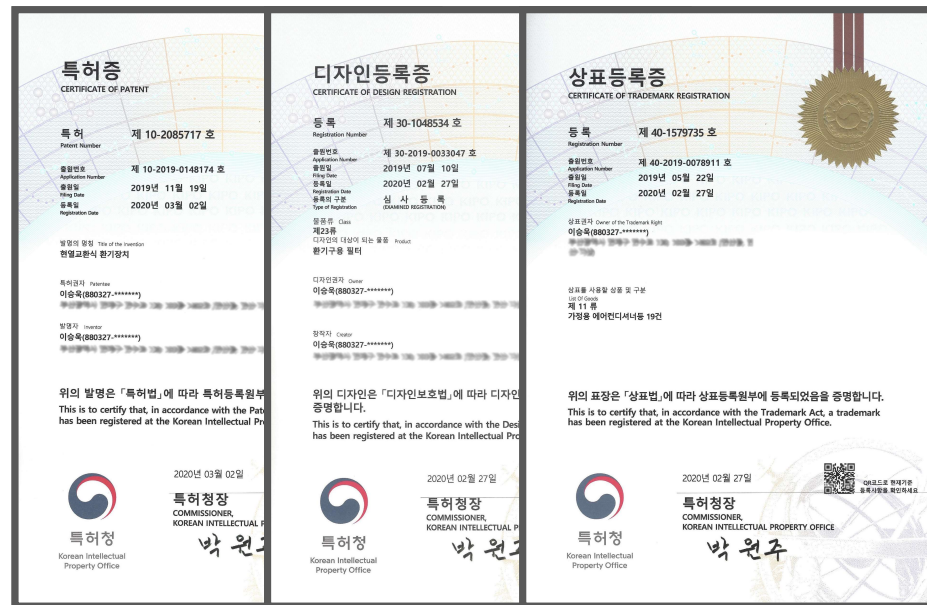
1. Through the high efficiency filter, block the ultra fine dust, harmful gas, bacterial aerosol and stench in the air

2. Lower the respiratory resistance by high-performance BLDC fan

3. **Primarily prevent the spill of droplet** by chamber type silicon structure

4. **Block** one more time the **uncaptured smaller droplet** at the silicon by special rib

Patent Possession



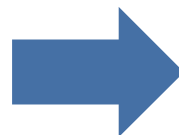
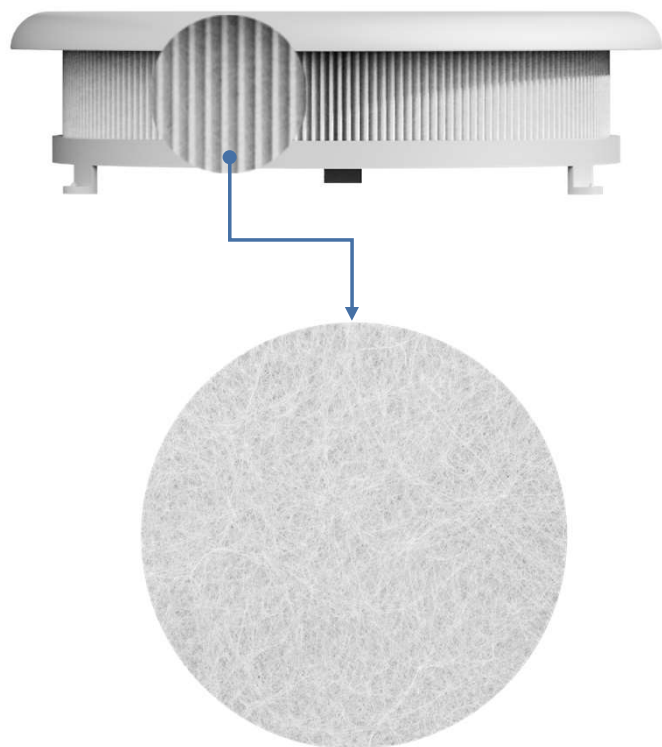
The production of CALAB's function which blocks highly ultra fine dust smaller than 0.3 μ m, harmful gas and floating bacteria has been proved officially and based on various patents and intellectual property

04 Economic Efficiency

A single replacement filter can be used for up to 100days, allowing clean air to be inhaled at a more economical cost



Maintenance Cost Save



Long filter life term can save the cost of maintenance
A replacement filter can be used for up to 100days
clean air to be inhale at much more economical cost

05 Convenience

Everyone can use it easily by simple instruction like putting in a filter and pressing a button



99% Convenience, 1% Manage



01

Keep hygienic Automatically dry and sterilization through charger cradle



02

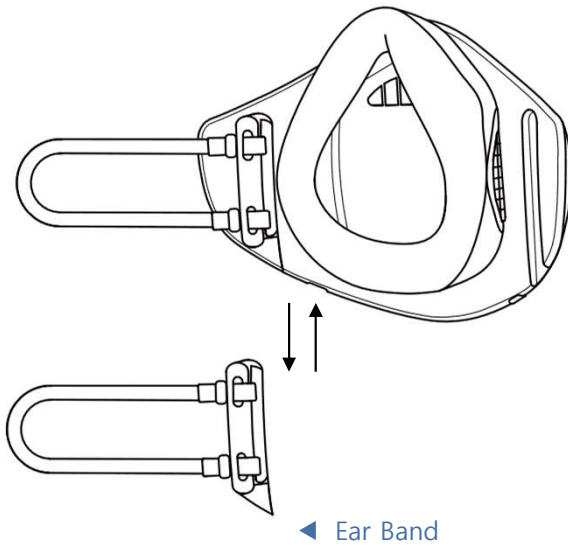
If precise cleaning is required, remove the screws in the respiratory part and clean with water



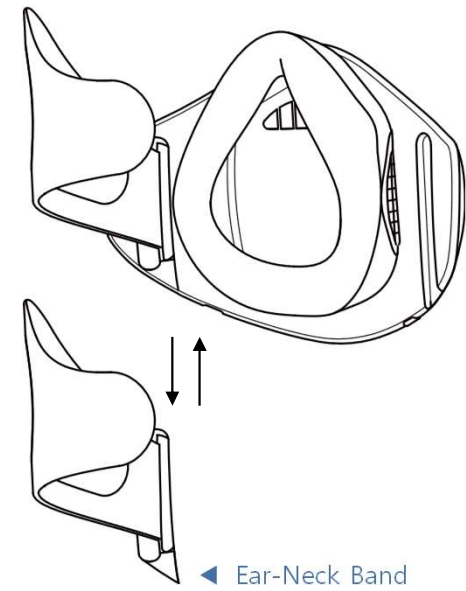
03

Cosmetics and substance can be cleaned by wet tissue simply

Comfortable Replacement-type Band Structure!



Only 10 seconds, anyone can replace easily and quickly And offer two types bands which **minimize head pressure** and **disperse the weight load**



Anyone Easily and Quickly!

1



2



3



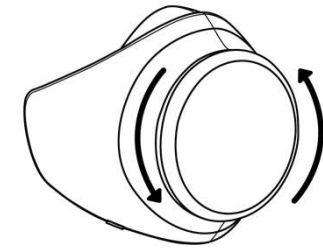
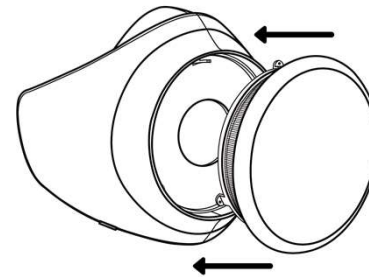
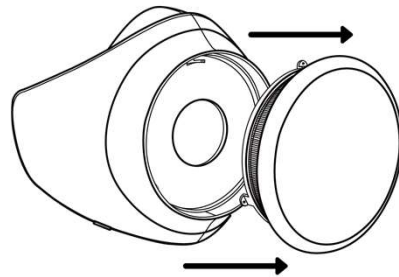
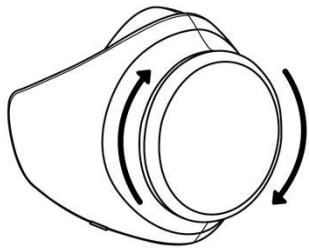
4

Turn the filter counterclockwise

Raise the filter and remove

Put the new filter in.

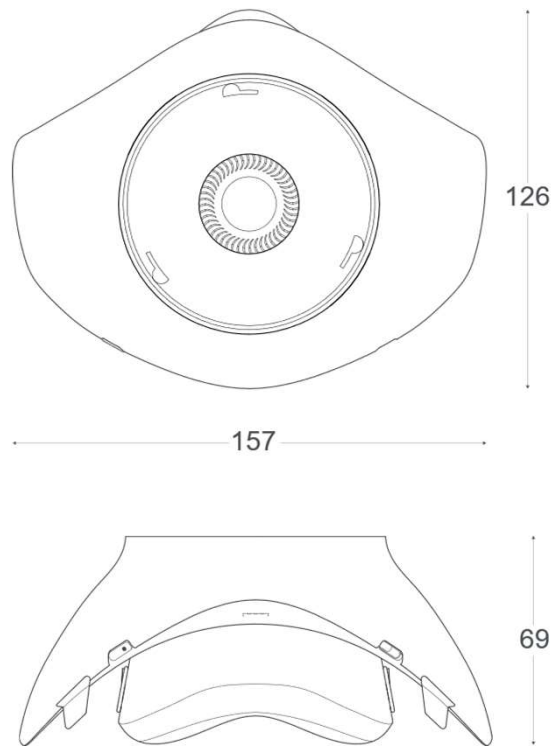
Turn the filter clockwise and fasten



Anyone **can replace the filter quickly**

the gap completely blocked, the fine dust can not be in from outside
the air only be in through the complete compression structure filter.

Product Specification



Product	Aero Breath
Model name	CAL-AS-201907001
Color	Black, White
Size	157x69x126mm) *except filter.
Weight	155g
Filter function	H13 Grade (>99.95%)
Material	ABS + Silicon(Medical Grade)
Origin	South Korea
Manufacturer/sales	CALAB corporation
Warranty period	12months

※it could be 1cm-2cm error depends on measurement.

Product Composition



- ① Aero Breath body
- ② Aero Breath filter
- ③ Aero Breath cradle
- ④ Aero Breath ear-neck band(fabric type)
- ⑤ Aero Breath ear band(silicon type)
- ⑥ C-type integral charger

THANK YOU!

CALAB

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Web-site
www.calab.kr