



# Unicorn Mask

## Design Analysis

### SIZING CHART FOR 6 MASK SIZES

Description	Kids I Small (Age 2-3)	Kids II Medium (Age 4-5)	Small (45-75 Lbs) (20-34 Kg)	Medium (75-130 Lbs) (34-59 Kg)	Large (130-190 Lbs) (59-86 Kg)	X-Large (190+ Lbs) (86+ Kg)	Tolerance
<b>A</b> Front	8.5 <sup>cm</sup> /3.34"	9.5 <sup>cm</sup> /3.74"	10.5 <sup>cm</sup> /4.14"	11.5 <sup>cm</sup> /4.52"	12.5 <sup>cm</sup> /4.92"	13.5 <sup>cm</sup> /5.31"	+ - 0.5 <sup>cm</sup> /0.19"
<b>B</b> Top Border	7 <sup>cm</sup> /2.75"	7.5 <sup>cm</sup> /2.95"	8 <sup>cm</sup> /3.14"	8.5 <sup>cm</sup> /3.34"	9 <sup>cm</sup> /3.54"	9.5 <sup>cm</sup> /3.74"	+ - 0.5 <sup>cm</sup> /0.19"
<b>C</b> Mandibular	7 <sup>cm</sup> /2.75"	8 <sup>cm</sup> /3.14"	8.5 <sup>cm</sup> /3.34"	9.5 <sup>cm</sup> /3.74"	10.5 <sup>cm</sup> /4.14"	11.5 <sup>cm</sup> /4.52"	+ - 0.5 <sup>cm</sup> /0.19"
<b>D</b> Chin Width	2 <sup>cm</sup> /0.78"	2.5 <sup>cm</sup> /0.98"	2.7 <sup>cm</sup> /1.06"	3 <sup>cm</sup> /1.18"	3.3 <sup>cm</sup> /1.29"	3.6 <sup>cm</sup> /1.41"	+ - 0.5 <sup>cm</sup> /0.19"
<b>E</b> Chin Bottom	6 <sup>cm</sup> /2.36"	7 <sup>cm</sup> /2.75"	7.5 <sup>cm</sup> /2.95"	8.5 <sup>cm</sup> /3.35"	9.5 <sup>cm</sup> /3.74"	10.5 <sup>cm</sup> /4.13"	+ - 0.5 <sup>cm</sup> /0.19"
<b>F</b> End Width	3 <sup>cm</sup> /1.18"	3.5 <sup>cm</sup> /1.37"	3.5 <sup>cm</sup> /1.37"	4 <sup>cm</sup> /1.57"	4.5 <sup>cm</sup> /1.77"	5 <sup>cm</sup> /1.96"	+ - 0.5 <sup>cm</sup> /0.19"
<b>G</b> Ear Loop	7 <sup>cm</sup> /2.75"	8 <sup>cm</sup> /3.14"	9 <sup>cm</sup> /3.54"	10 <sup>cm</sup> /3.93"	11 <sup>cm</sup> /4.33"	12 <sup>cm</sup> /4.72"	+ - 0.5 <sup>cm</sup> /0.19"



**A**



**B**



**C**



**D**



**E**



**F**



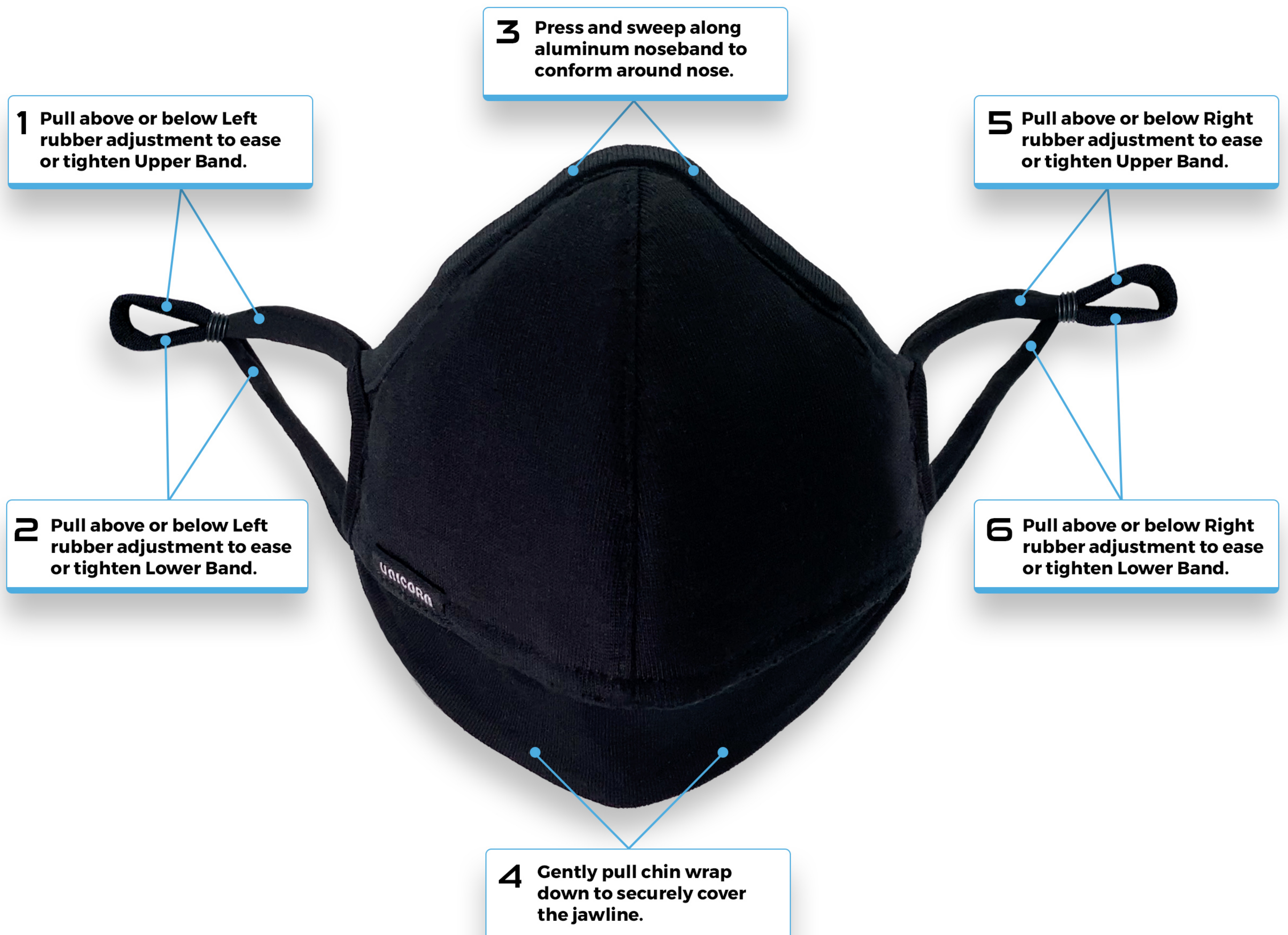
**G**



## 6 SIZES, 6 ADJUSTMENT POINTS SOLVING GAPS & LEAKAGE

Did you know that respiratory aerosols can accumulate the same way cigarette smoke accumulates, in a plume, allowing virus particles to linger up to 16hrs in a low ventilated room?

Featuring up to 6 size options ranging from adults to kids, with a total of 6 adjustment points in a contour design, gaps and leakage are significantly reduced, preventing these particulates as small as 0.1 microns from being inhaled. Most face masks on the market are a 'one-size-fits-most' or offer 2 adult sizes with only 1-2 adjustment points, leaving numerous gaps and leakage, reducing mask particle efficiency up to 60%! April 24, 2020 | Source: ACS Nano <https://pubs.acs.org>





# OUTSIDE DESIGN

## Style & Fit

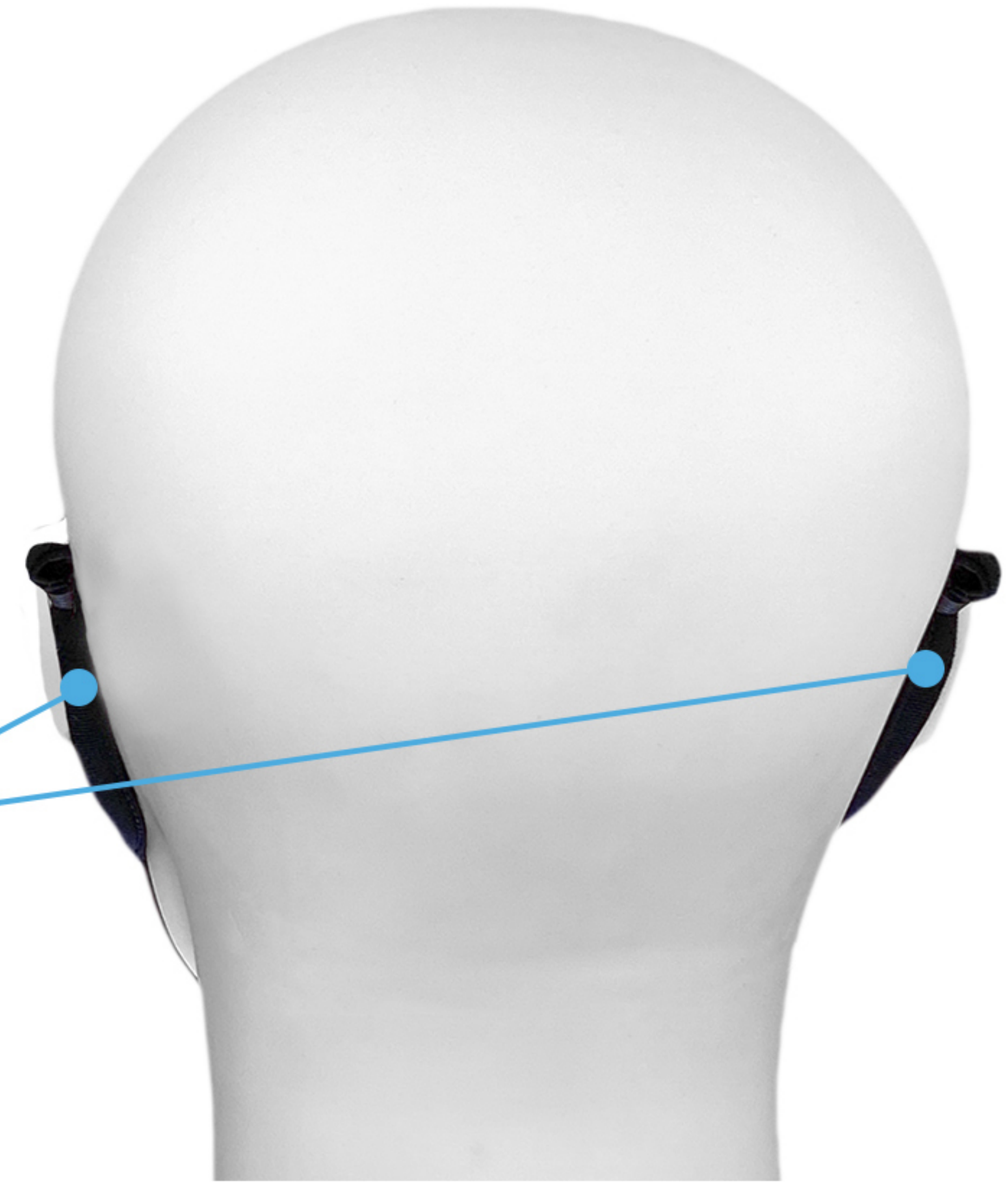
Unique design elements solving the common complaints of mask wearing.



FRONT VIEW

**Reinforced center stitch prevents cave-in while breathing/talking, and allows for plenty of room inside the mask for ease of use.**

**Soft band wraps comfortably around ears, prevents chafing and skin irritation.**



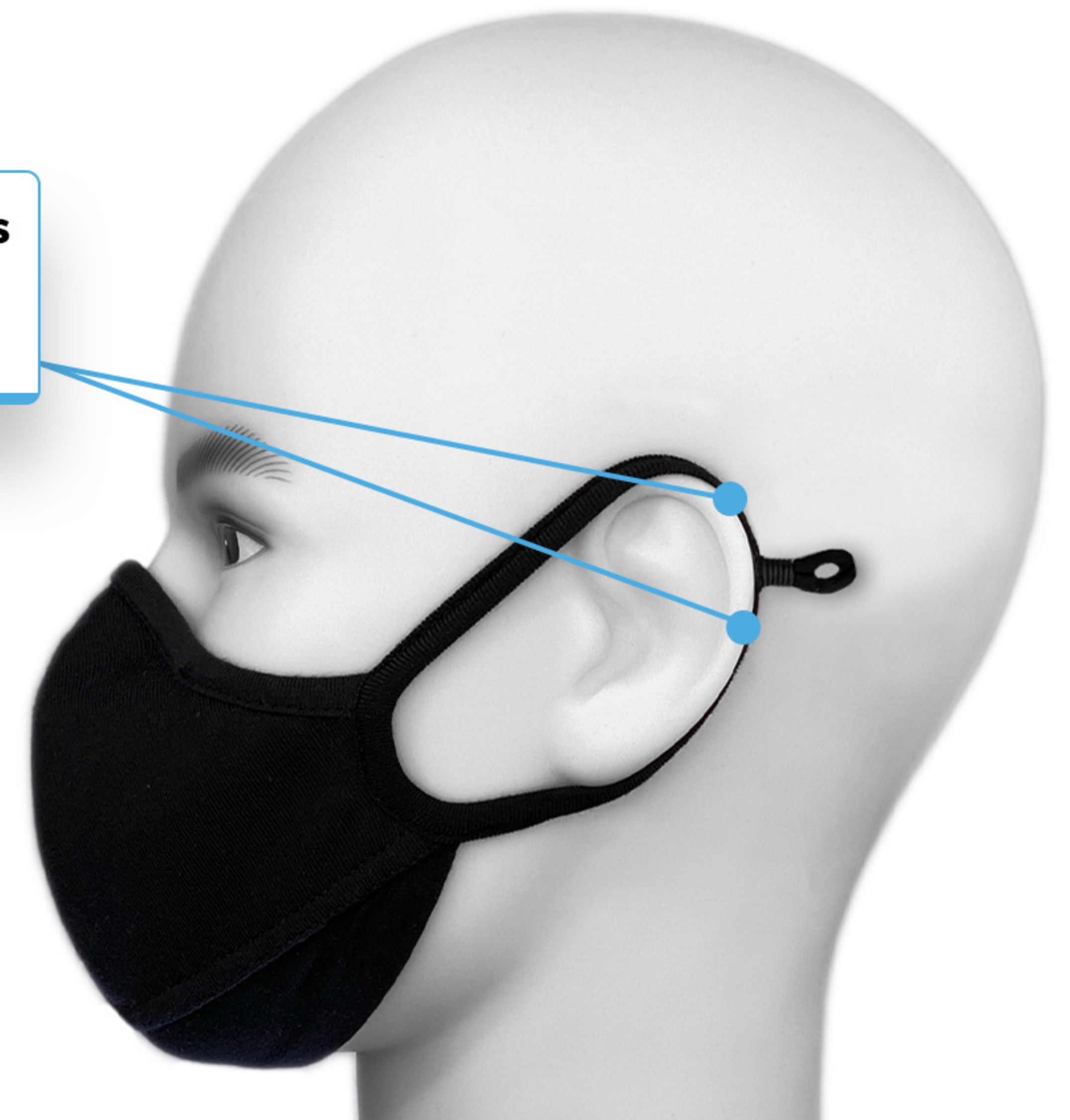
BACK VIEW



RIGHT VIEW

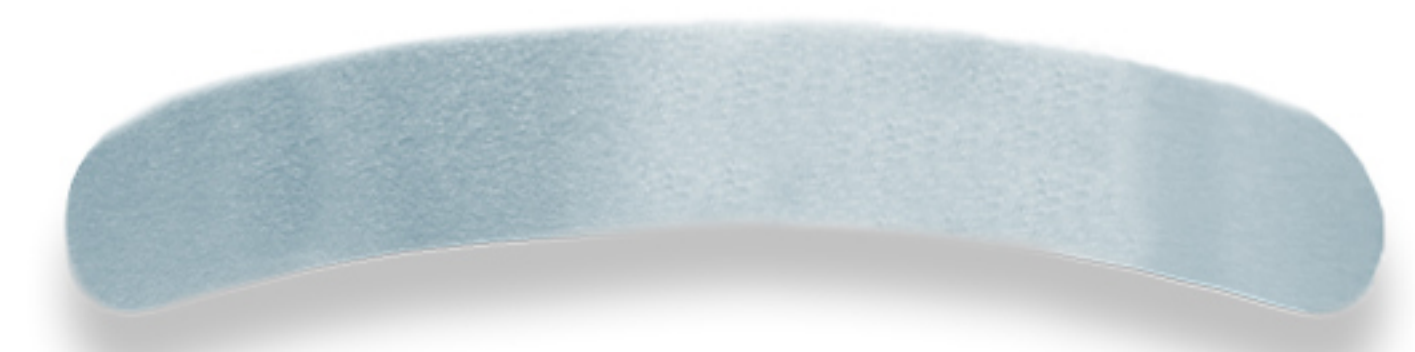
**Fully adjustable soft cotton ear loops to ease or tighten upper and lower bands for a perfect glove-like fit.**

**Sleek contour fit for maximum protection and style, wrapping around entire facial structure, greatly reducing gaps/leakage.**



LEFT VIEW

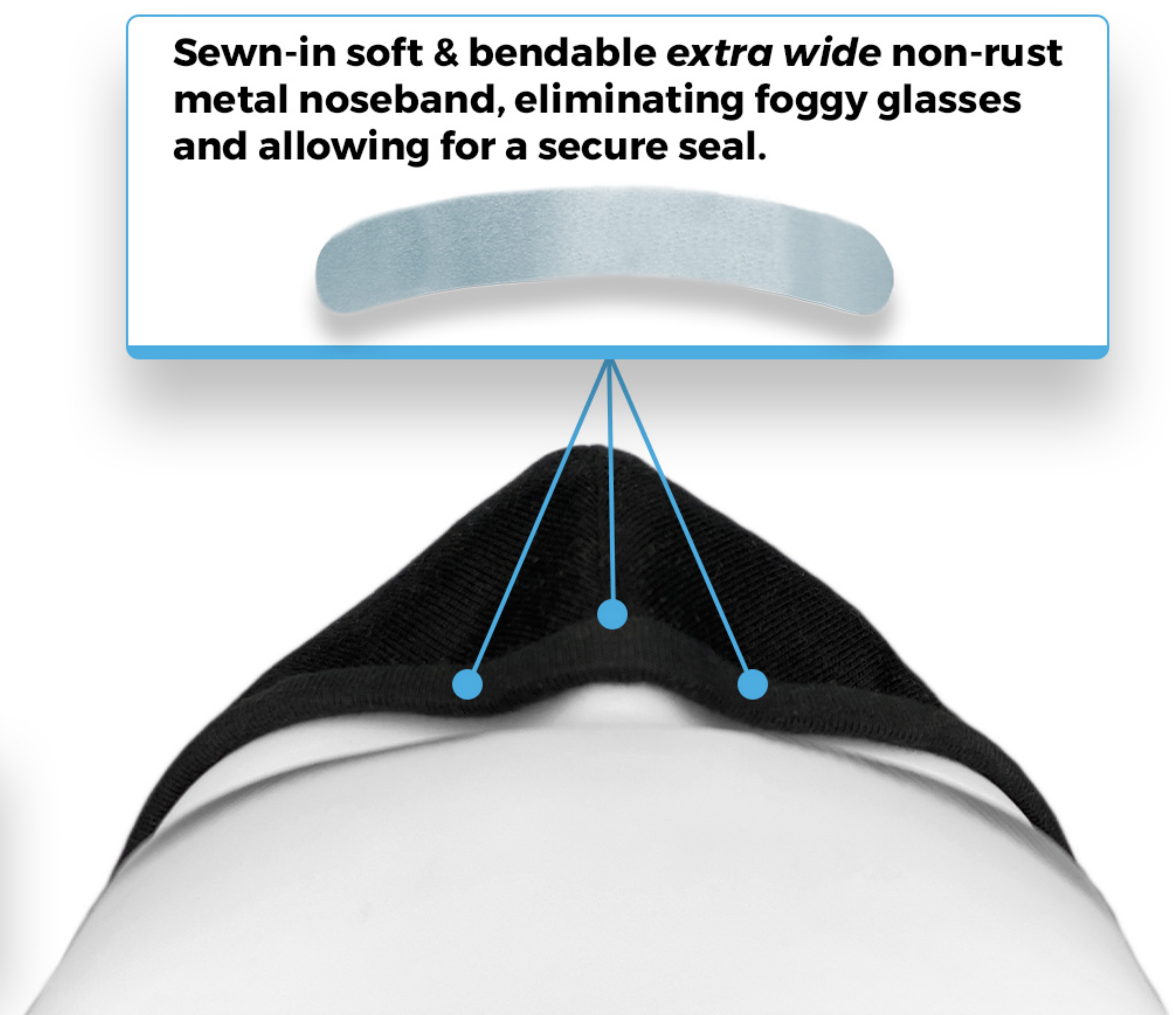
**Sewn-in soft & bendable extra wide non-rust metal noseband, eliminating foggy glasses and allowing for a secure seal.**



BOTTOM VIEW

**Reinforced jawline stitch adheres mask firmly to chin, providing a leakage-free seal.**

**Soft and comfortable extra-wide spandex chin wrap securely covers the jawline, providing a breathable leakage-free seal. Great for beards!**



TOP VIEW



## INSIDE DESIGN

### Comfort & Breathability

Unicorn Masks offer High Performance breathability at **5mm h<sub>2</sub>o** tested to the new ASTM F3502 standard. The lower the score, the more breathable. ASTM F3502 allows up to 15mm h<sub>2</sub>o (the higher the rating, the more difficult to breathe). NIOSH certified respirators have two different breathability limits: one for inhalation, the other for exhalation. For inhalation the air flow resistance (breathability) for **N95s is  $\approx$  35mm h<sub>2</sub>o**, more than double the maximum breathability resistance allowed under the new ASTM F3502 standard!



**Sewn-in soft & bendable extra wide non-rust metal noseband, eliminating foggy glasses and allowing for a secure seal.**

**High thread count, pure 100% GOTS Certified Organic Cotton (undyed/natural), ideal for sensitive skin and long term mask wearing.**

**Sleek contour fit for maximum protection and style, wrapping around entire facial structure, greatly reducing gaps/leakage.**

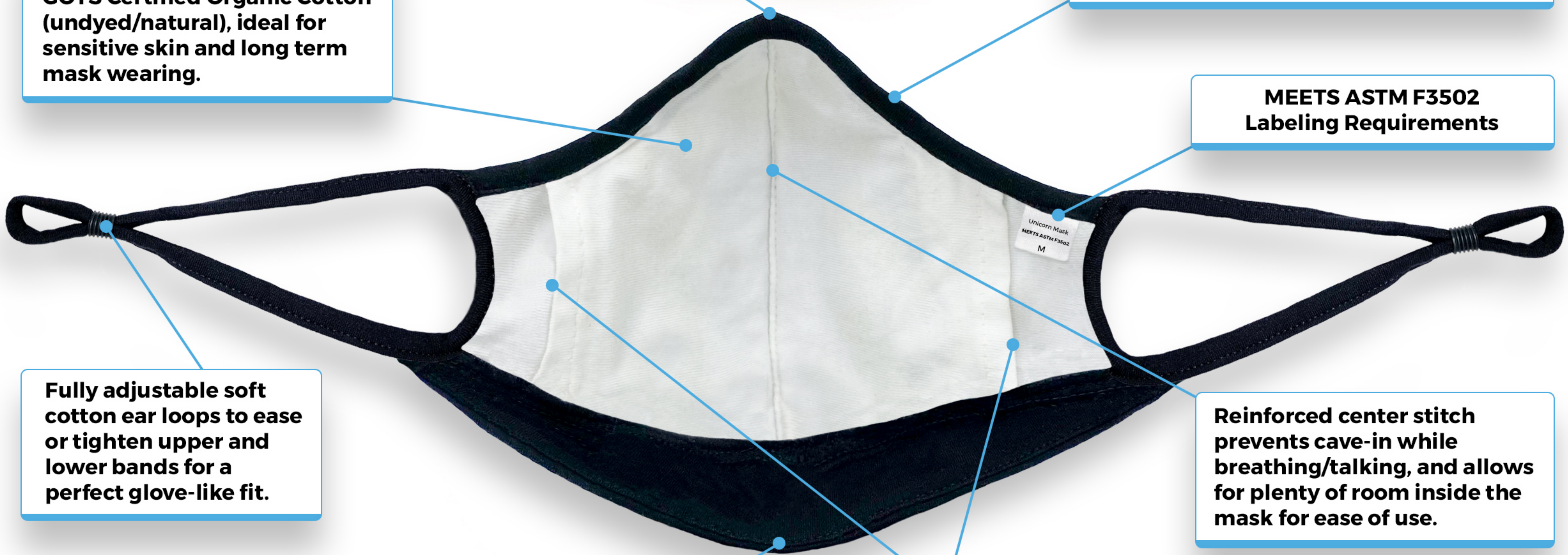
**MEETS ASTM F3502 Labeling Requirements**

**Fully adjustable soft cotton ear loops to ease or tighten upper and lower bands for a perfect glove-like fit.**

**Reinforced center stitch prevents cave-in while breathing/talking, and allows for plenty of room inside the mask for ease of use.**

**Soft and comfortable extra-wide spandex chin wrap securely covers the jawline, providing a breathable leakage-free seal. Great for beards!**

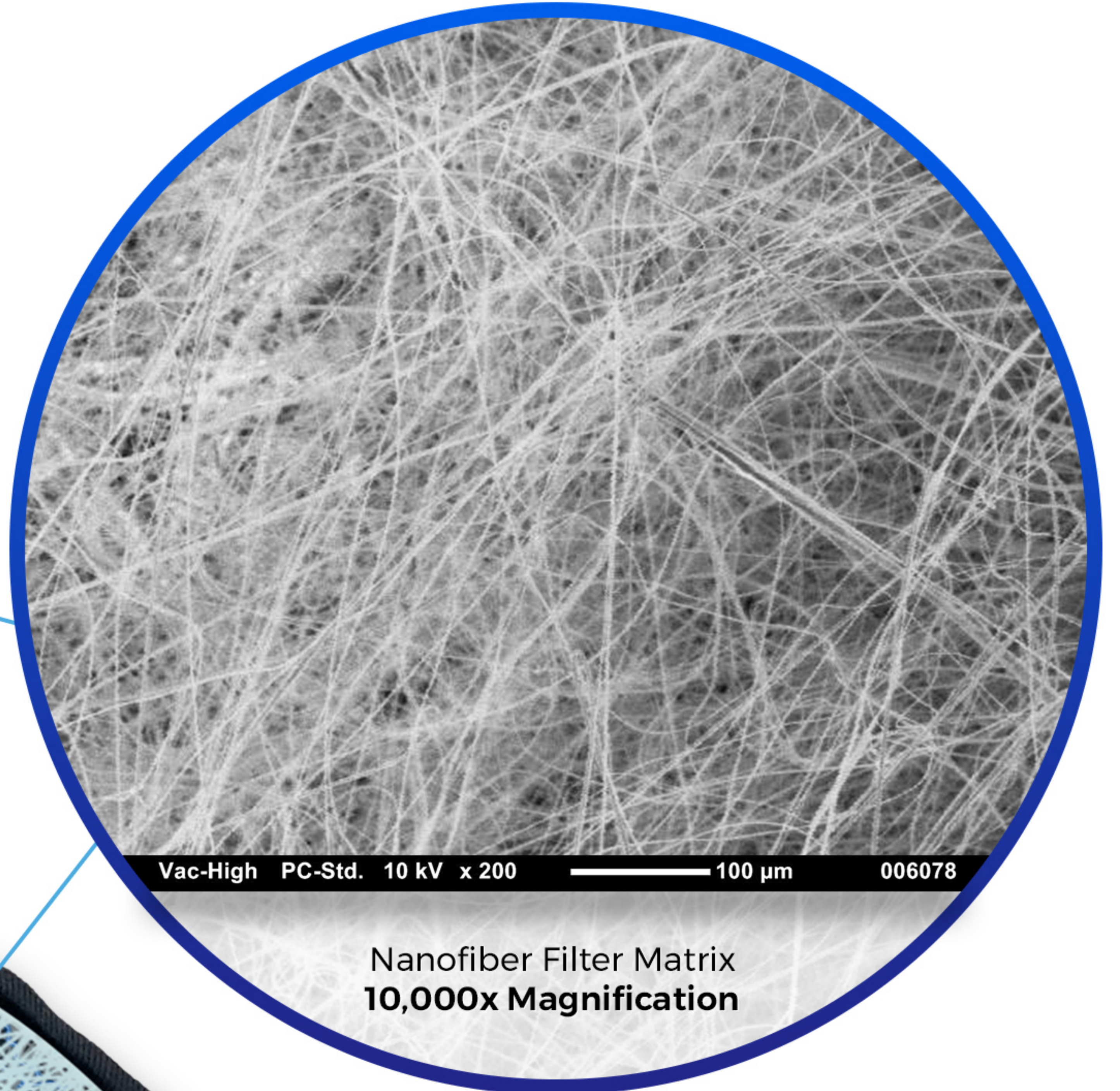
**Deep nanofilter pockets ensure filters remain securely in place underneath the fabric folds, ensuring no contact with skin.**





# ADVANCED FILTER PROTECTION

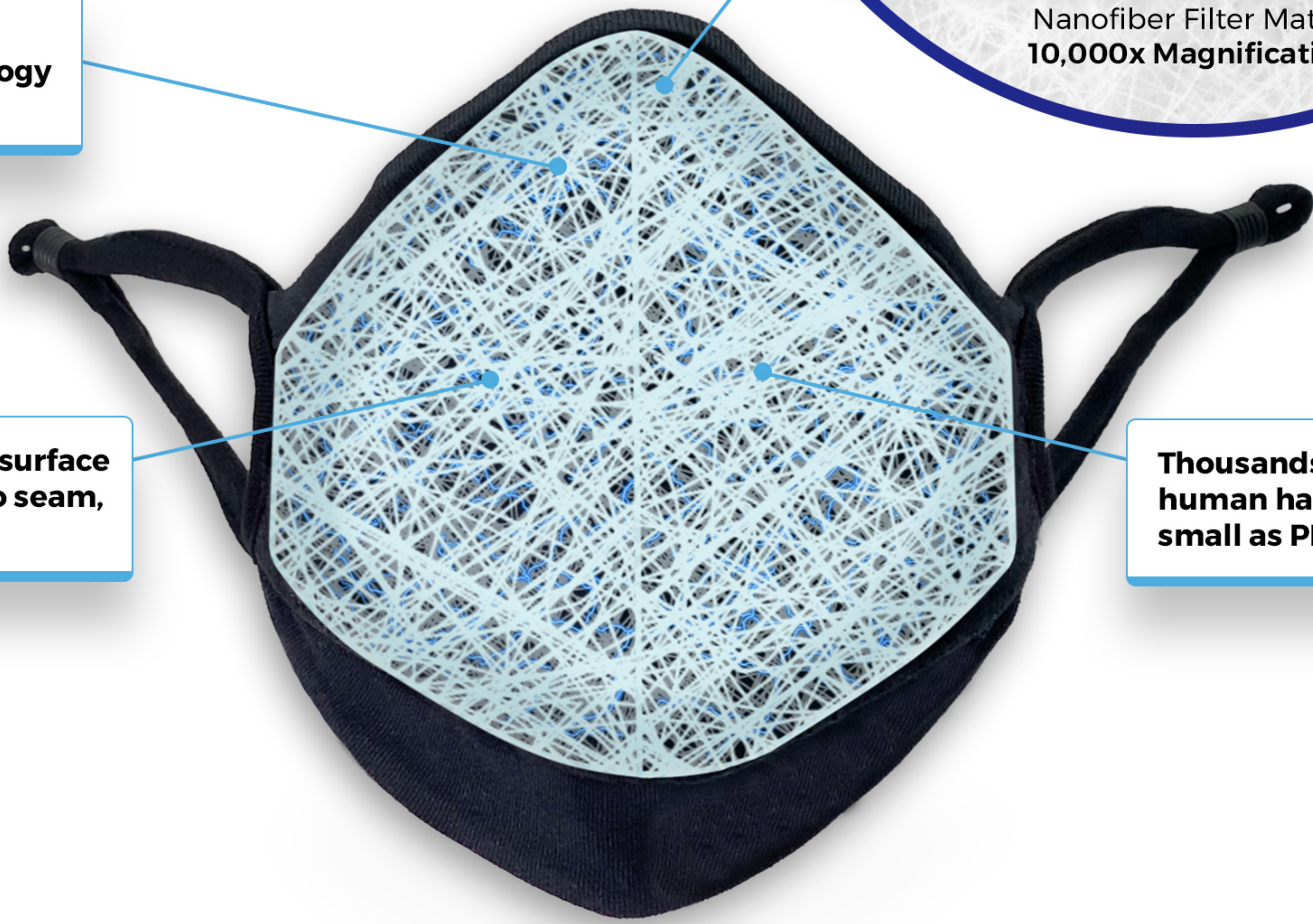
Replaceable Non-Woven Proprietary  
Sonic Electrospun Nanotechnology Filters



**15+ miles of sonic electrospun nanotechnology matrix per filter.**

**Filter media covers entire surface area of mask from seam to seam, ensuring filter efficiency.**

**Thousands of times thinner than a human hair, capturing particles as small as PM0.1 with 99% efficiency.**



**Human Hair**  
≈ 60.0 microns

**Pollen & Mold**  
≈ 10.0 microns

**Bacteria & Pollution**  
≈ 2.5 microns

**Dander Dust & Spores**  
≈ 1.0 microns

**Coronavirus**  
≈ 0.125 microns

