

FreeciousCare

**MANN
FILTER**

MANN+HUMMEL



Among Asian cities facing air pollution,
Top 4 are in India

Severe Air Pollution Is Suffocating India

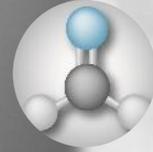
Annual average PM2.5 in
Delhi is 3X that of Beijing

Rapid Urbanization



PM2.5

Irresponsible Industrialization



Formaldehyde

Major Sources Of Air Pollution Are Around Us

Explosive Transportation Growth



**Volatile Organic
Chemicals**

Harmful production materials



Microorganisms



Average pollution levels on
roads in Delhi up to 8 TIMES HIGHER
than urban background readings

The Worst Air Pollution Is On The Roads

In-vehicle pollution in Delhi is
up to 30 TIMES HIGHER
than other measured megacities



Heart diseases

Respiratory problems

Nervous and immunity systems failures

Nasal Cancer

Lung Cancer

Liver Cancer

Air Pollution Kills You Gradually ... But Eventually

**Every year In India due to air pollution,
>700,000 people die prematurely**



I am not afraid to die
I just do not wish to be living like this

Filtration Leader With 75 Years Of History

German Technology, German Quality



FreeciousCare FC 301

“Performance That Cares”

- 1** Clean Air Delivery Rate **4X Higher**
- 2** PM2.5 Removal **>99%**
- 3** Formaldehyde Removal **>99%**
- 4** Protection vs. **Multiple Pollutants**
- 5** Integrated **Air Quality Sensor**
- 6** Silent Mode for **Quiet Comfort**

1

Superior Clean Air Delivery
Rate* (25.5 m³/h)

Up to 4X better than the
average car purifier



*CADR is a measure of an air purifier's pollutant filtration efficiency. The higher the CADR, the better it cleans the air.

2

HEVA* Technology Delivers High PM2.5 Filtration

>99% removed in 10 minutes**
Healthy Air in 2 minutes^



*HEVA is M+H's unique HEPA-VOCs Arrestance Filter. Filter to be replaced every 6-9 months.

**Tested by Shanghai Institute of Measurement & Testing Technology (SIMT)

^More than 60% PM2.5 particles removed

3

HEVA* Technology Removes Formaldehyde Effectively

>99% eliminated in 60 minutes**



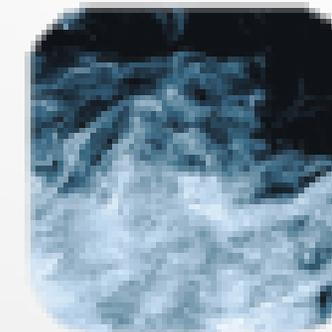
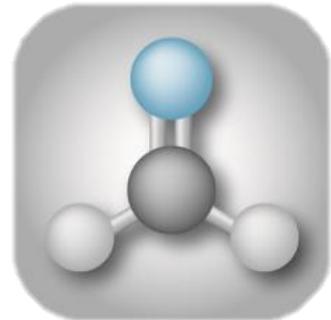
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4

Protection Vs. Multiple Pollutants

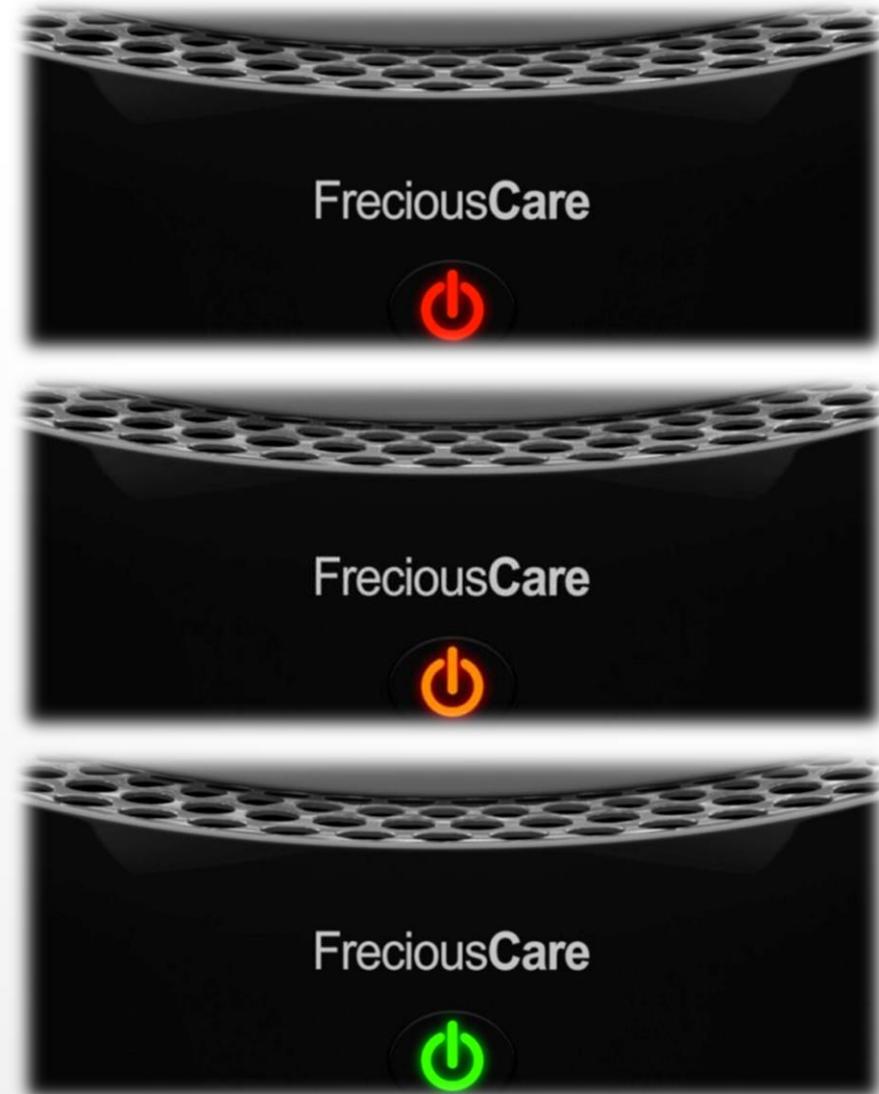
- PM2.5
- Formaldehyde
- Volatile Organic Chemicals (VOCs)
- Microorganisms
- Cigarette smoke
- Odors



5

Integrated Air Quality Sensor

Enable active monitoring of air quality in the car



6

Silent Mode

40 dB in low speed operation for quiet comfort like in a library*



*Source - "Noise Sources & Their Effects", Department of Chemistry, Purdue University, USA

Various Installation Possibilities

- Front-seat armrest
- Back-seat armrest
- Under passenger seat





Exquisite Packaging

- Designed by renowned German firm
- Directed at consumers' purchasing desires



Why Filtration-Based Technology?

✓ High efficiency in removing PM2.5 and harmful chemicals

✓ Safe technology that does not cause secondary pollution

✗ Anion & Plasma Technology

- Limited effect on PM2.5
- Easy to generate ozone which is harmful to health
- Potential interference with car electronics

✗ Electrostatic Technology

- Limited effect on harmful chemicals
- Short lifetime
- Easy to generate ozone which is harmful to health

✗ Photo-catalyst Technology

- Limited effect on PM2.5
- Short lifetime
- Easy to generate ozone, UV radiation and hydroxyl radicals which are harmful to health

Car Purifier vis-à-vis Cabin Air Filter

PM2.5 CAF is best defense vs. PM2.5, but a Car Purifier can

- ✓ Be used in all cars without limitations (e.g. car HVAC system limits)
- ✓ Deal effectively with interior-generated gas pollutants
- ✓ Accelerate the cleaning of air when used together with a good CAF
- ✓ Allow consumer to use and maintain with ease and flexibility
- ✓ Provide additional useful functions, e.g. smart air quality detection



Automobile Air Purifiers Comparison

Brand (Model)	CADR (m ³ /h)	PM2.5 removal efficiency (30 min)	Formaldehyde removal efficiency (60 min)	Time to remove 50% PM _{2.5} in car	Power	Purification Efficiency (CADR/Power)	Weight
European Brand (Model 1)	7	99.9%	88%	15 min	3W	2.3	700 g
Chinese Brand (Model 1)	<25	>99%	95%	-	8W	<3.1	1,000 g
Japanese Brand (Model 1)	-	-	-	-	2W	-	340 g
Japanese Brand (Model 2)	<30	>99%	>72%	-	5W	<6	1,100g
MANN-FILTER (FC 301)	25.5	>99 (in 10 min)	>99% (in 60 min)	2 min (>60%)	5W	5.1	1,000 g

MANN-FILTER Offers Superior Performance And Value



Technical Specifications

Product description

Technology	Automotive air purifier with filtration-based technology
Name	FreciousCare FC 301
Noise level	40 (silent mode) – 55 (high mode) dB
Air quality sensor	Automatic detection with 3 levels of indication.
Automatic On/Off	Yes
Filter type/s	<ul style="list-style-type: none">FC 301 H (HEVA filter)
Speed settings	3 speeds
Power	5 W
Voltage	12 V
Filter Lifetime	6 - 9 months

Accessories included

12 V power cable	4 m length
Installation accessories	<ul style="list-style-type: none">Strap with buckleHook and loop fasteners

Weight and dimensions

Product dimensions (diameter x height)	210 x 80 mm
Product weight	1,000 g

Warranty & Service Information

- 12 months warranty from date of purchase
- Consumer to bring product back to original shop/distributor
- Shop/distributor to send product to M+H
- M+H would evaluate on either minor repairs or full exchange (1-1 depending on situation)
- Product must have been used in accordance to operating manual. Original receipt and respective registration of warranty should have been done in order for warranty to be valid
- Purchase of replacement filter elements is provided through official sales channels

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