FOR CLEAN AND BETTER ENVIRONMENT

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Anti Smog Tower

SHREE LAXMI ENTERPRISES

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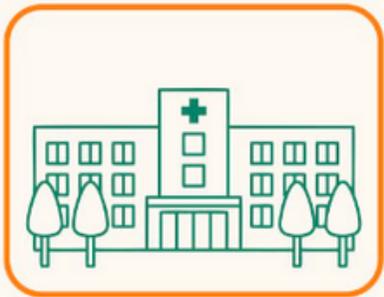
LARSEN & TOUBRO

S.L.E. MACHINERY

OUR VISION

CLEAN DELHI GREEN DELHI

PROPOSED IMPLEMENTATION : ILLUSTRATION

IDEAL FOR
LARGE SPACES

- Hospital's
- Government Buildings
- Bus Stands
- Railway Station
- Airport
- Shopping mall's

Airport

SHOPPING MALL

SHREE LAXMI ENTERPRISE

Brief on the Working of
ANTI SMOG TOWER

The technology typically involves **multiple layers of air** filters that capture and remove various pollutants. Some smog towers also incorporate **ionization or electrostatic precipitation** techniques to enhance the filtration process.
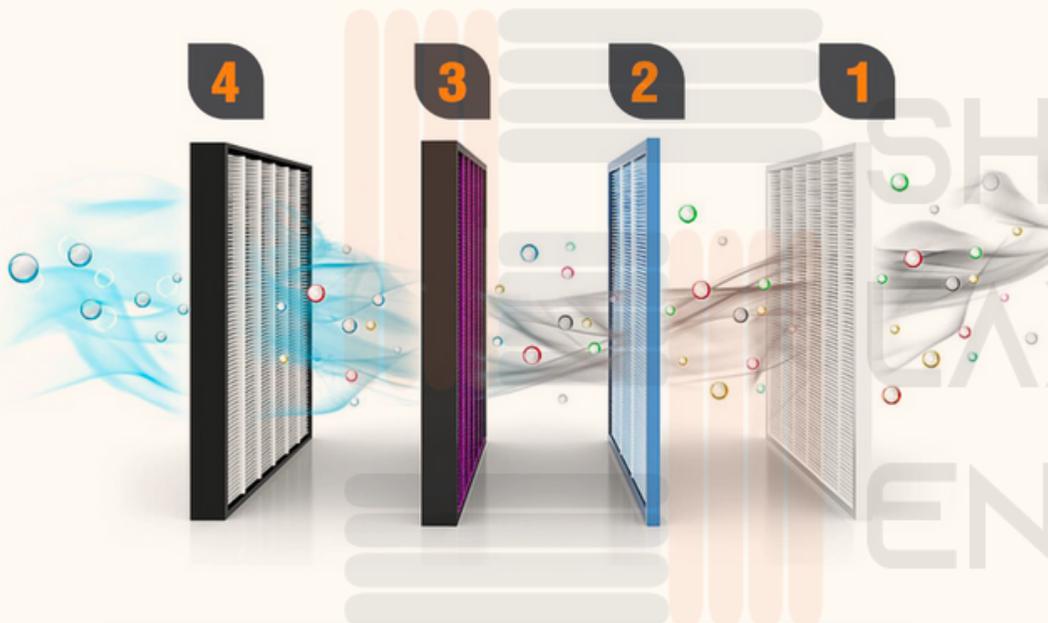
FOUR STAGE AIR PURIFICATION

Smog towers have gained attention as potential solutions to **combat air pollution in densely populated cities**, especially in regions with severe air quality issues. They are often **placed in areas with high traffic congestion or industrial activity, where pollution levels tend to be elevated.**

ANTI SMOG TOWER
/Outdoor Air Purifier

Mast Type	20-21 Ft
Power Consumption	7.5 HP - 5Kw
Air purification (per/hr)	27,684 (Mtr2/hr)
Air purification Are	1076 sq/ft - 100 mtr
Separation Rate (No2)	80%
Separation Rate (PM 10)	87%
Separation Rate (PM 2.5)	62%
Weight Approx.	900 Kg
Application	Outdoor
Control Panel	IP 65

- **Solar Light Installed on top**
- **3 Layers of Air Purification**
- **Smog Tower binds more than 80% of particulate matter & No2**
- **Capable of bringing down the PM 2.5 level from 200 down to 50 within 60 minutes**

SPECIFICATION

- Smog Tower binds more than 80% of particulate matter & No2
- The unit is capable of bringing down the PM 2.5 level from 200 down to 50 within 60 minutes
- The essence of this technology is the newly developed combination of filters which contains a highly effective filter layer for dust particles and activated carbon layers that absorbs No2
- The concentration of particulate matter and nitrogen dioxide can be scaled down through filters directly

RESULTS

On October 8th, an analysis of PM$_{2.5}$ concentrations was conducted, revealing 8-hour average value of 93.5 µgm^{-3} for sampler S1 and 64.3 µgm^{-3} for sampler S2. The calculated average reduction between the two samplers was determined to be 31.2%. This wide spectrum of reduction values underscores the adaptive efficacy of the anti-smog tower, showcasing its ability to achieve substantial improvements in air quality while accommodating variations in PM$_{2.5}$ levels. On October 9th, an analysis of PM$_{2.5}$ concentrations was performed, revealing 8-hour average value of 75.1 µgm^{-3} for sampler S1 and 51.3 µgm^{-3} for sampler S2. The calculated average reduction between the two samplers was found to be 30.8% and on the third day i.e, October 11th, an analysis of PM$_{2.5}$ concentrations was conducted, yielding 8-hour average value of 57.5 µgm^{-3} for sampler S1 and 39.3 µgm^{-3} for sampler S2. The computed average reduction between the two samplers was determined to be 33.4%. The Overall average reduction comes out 31.5%
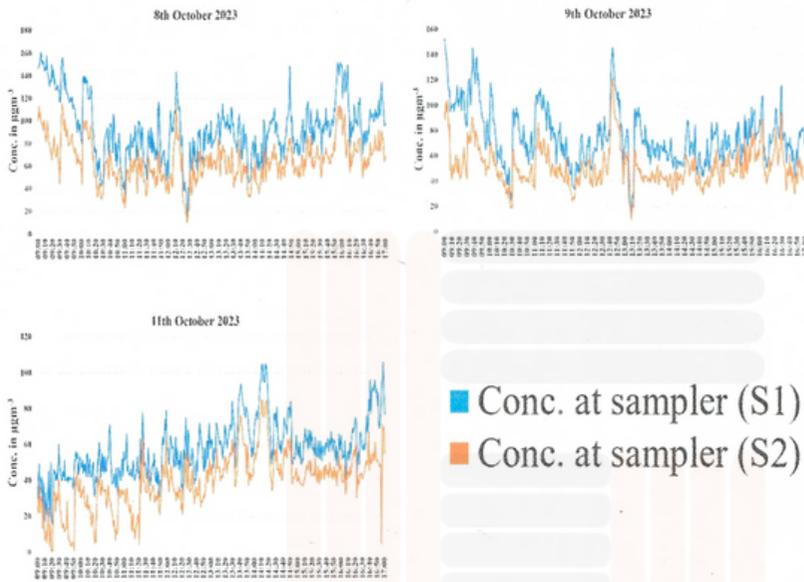
Figure 3:- PM$_{2.5}$ Conc. on 8th Oct, 9th Oct, and 11th Oct

After the PM$_{2.5}$ study conducted on October 8th, 9th, and 11th, a complementary investigation focusing on PM$_{10}$ levels transpired on October 18th, 19th, and 20th. This sequential approach allowed for a comprehensive evaluation of both fine (PM$_{2.5}$) and coarse (PM$_{10}$) particulate matter concentrations, providing a more holistic understanding of Sair quality dynamics over the specified period. On the fourth, fifth, and sixth days, a study was conducted to assess PM$_{10}$ levels. The 8-hour average PM$_{10}$ concentration for sampler 1 was determined to be 68.2 µgm^{-3} while for sampler 2, it was found to be 44.3 µgm-3. The calculated average reduction between the two samplers was notably high, at 34.9%. On the fifth day, which was October 19th, an examination of PM$_{10}$ levels was conducted. The 8-hour average PM$_{10}$ concentration recorded at sampler 1 was 84.7 µgm-3, while sampler 2 showed an 8-hour average of 54.6 µgm-3. The calculated average reduction between these two samplers was notably significant, amounting to 35.5%. This diverse range of reduction values underscores the dynamic nature of the anti-smog tower's impact on PM$_{10}$, demonstrating its ability to achieve substantial reductions while accounting for variations in pollutant concentrations. On the sixth day, October 20th, an analysis of PM$_{10}$ levels was carried out. The 8-hour average PM$_{10}$ concentration at sampler 1 was recorded as 74.7 µgm^{-3}, while sampler 2 exhibited an 8-hour average of 43.6 µgm^{-3}. The calculated average reduction between these two samplers was notably significant, amounting to 38.8%. The Overall average reduction comes out 37.4%
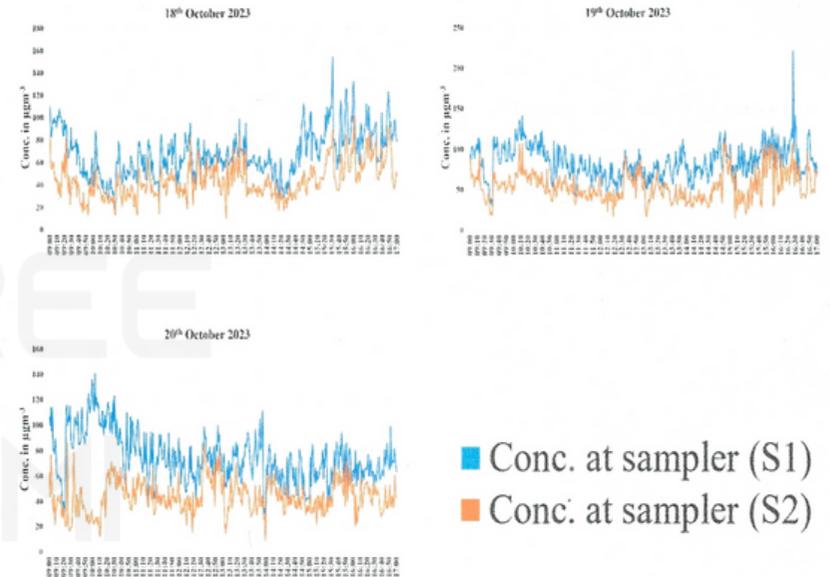
Figure 4:- PM$_{10}$ Conc. on 18th Oct, 19th Oct, and 20th Oct

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How does it differ from each other ?

What are the diseases and health problems that occurs when we breathe in air full of pollution ?

Headache and anxiety (So2)
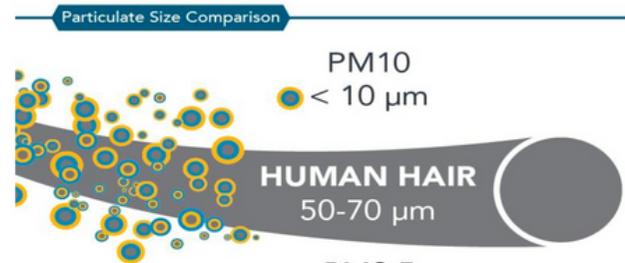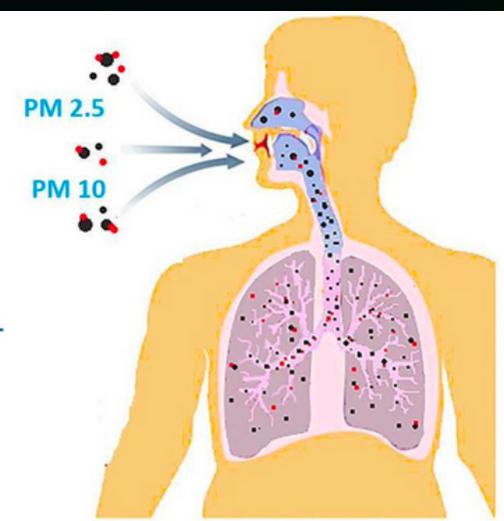
Impact on central nervous system (pm)
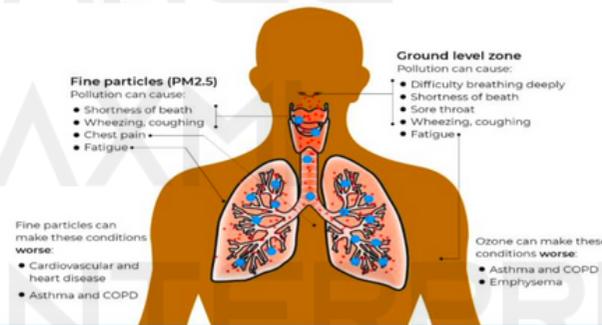
Asthma And reduced lungs (No2)

Lung cancer (pm , Bap)
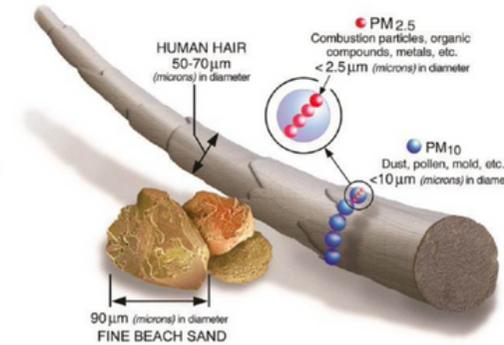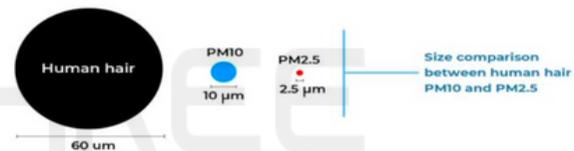
Cardiovascular diseases (Pm ,03 ,So2)

Impact on reproductive system (Pm)

Problems to liver , spleen and blood (No2)

ANTI SMOG
TOWER

OUTDOOR AIR PURIFIER

ONE STOP SOLUTION TO POLLUTION

Tested By ,
DELHI TECHNOLOGICAL UNIVERSITY

MAKE IN INDIA

Coverage Area -
40m to 100 m

ISO 9001:2015

GeM Government e Marketplace REGISTRATION

NSIC

MSME

Contact Us

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Shree Laxmi Enterprises

Expertise in Metal Fabrication

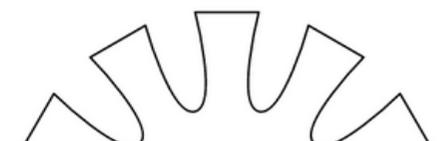ONE OF THE LEADING CONSTRUCTION MACHINERY MANUFACTURER COMPANY IN INDIA.

OUR VISION

CLEAN DELHI GREEN DELHI

PROPOSED IMPLEMENTATION : ILLUSTRATION

Making Infrastructure come true
Since the Year 2000

SHREE LAXMI ENTERPRISES

Clean & Green
Delhi
Is Our
Perfect Dream

Pillion

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LARSEN & TOUBRO

Our Outdoor Air Purifier in Action

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