



Eureka International
Opening Minds to Infinity



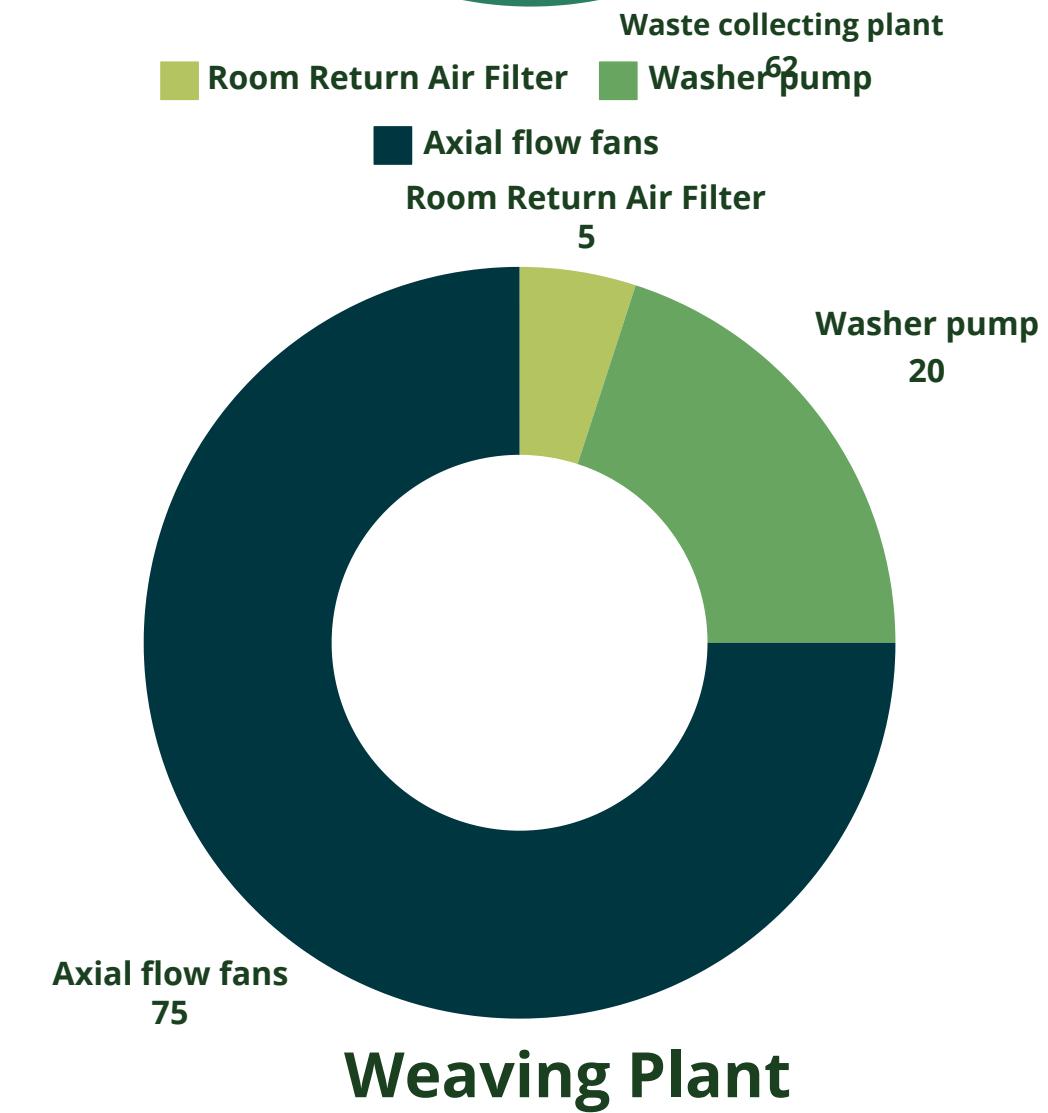
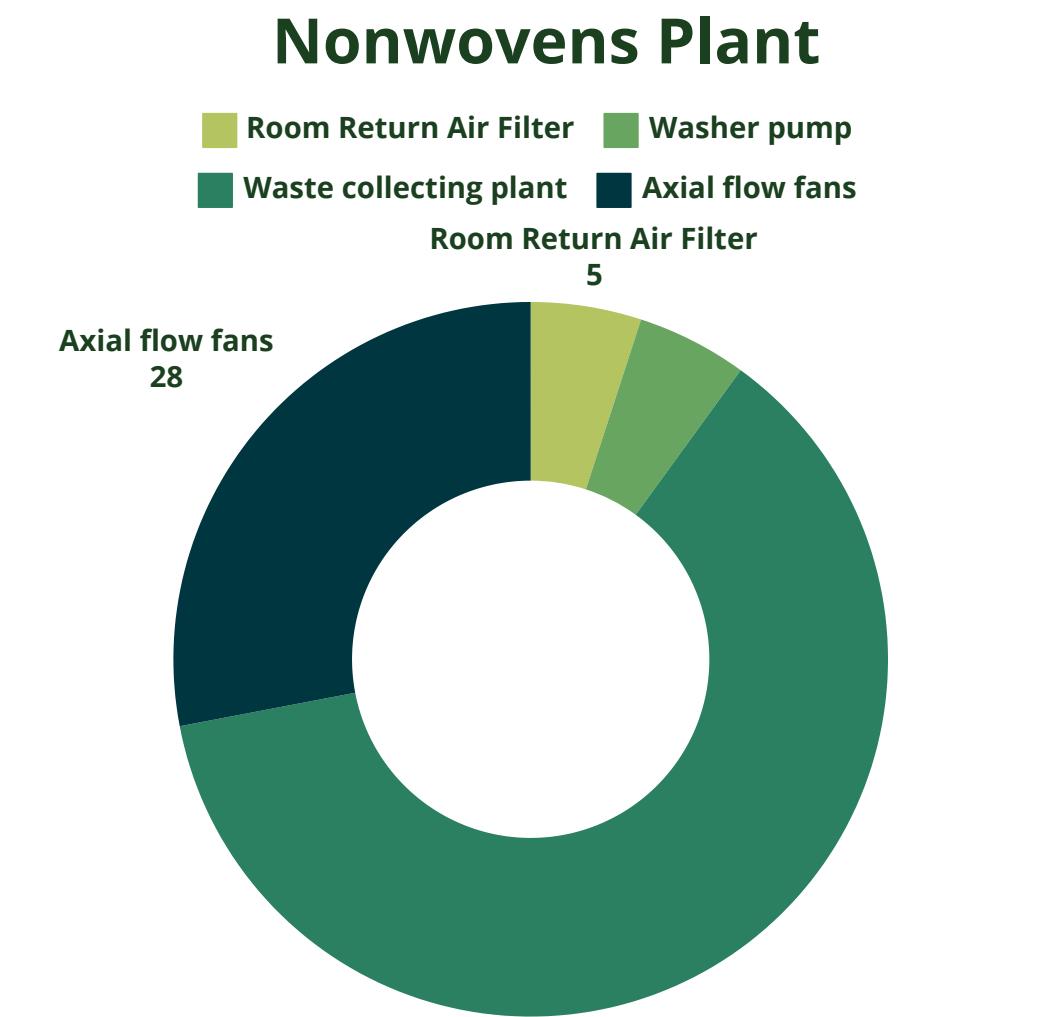
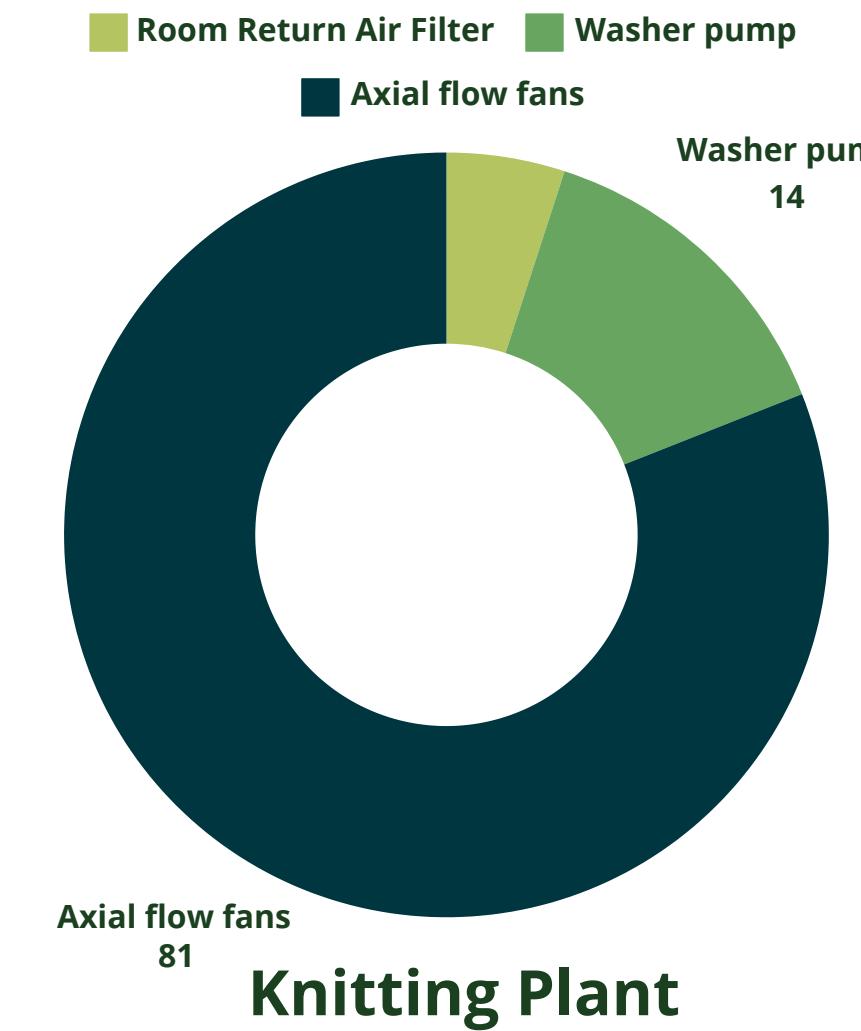
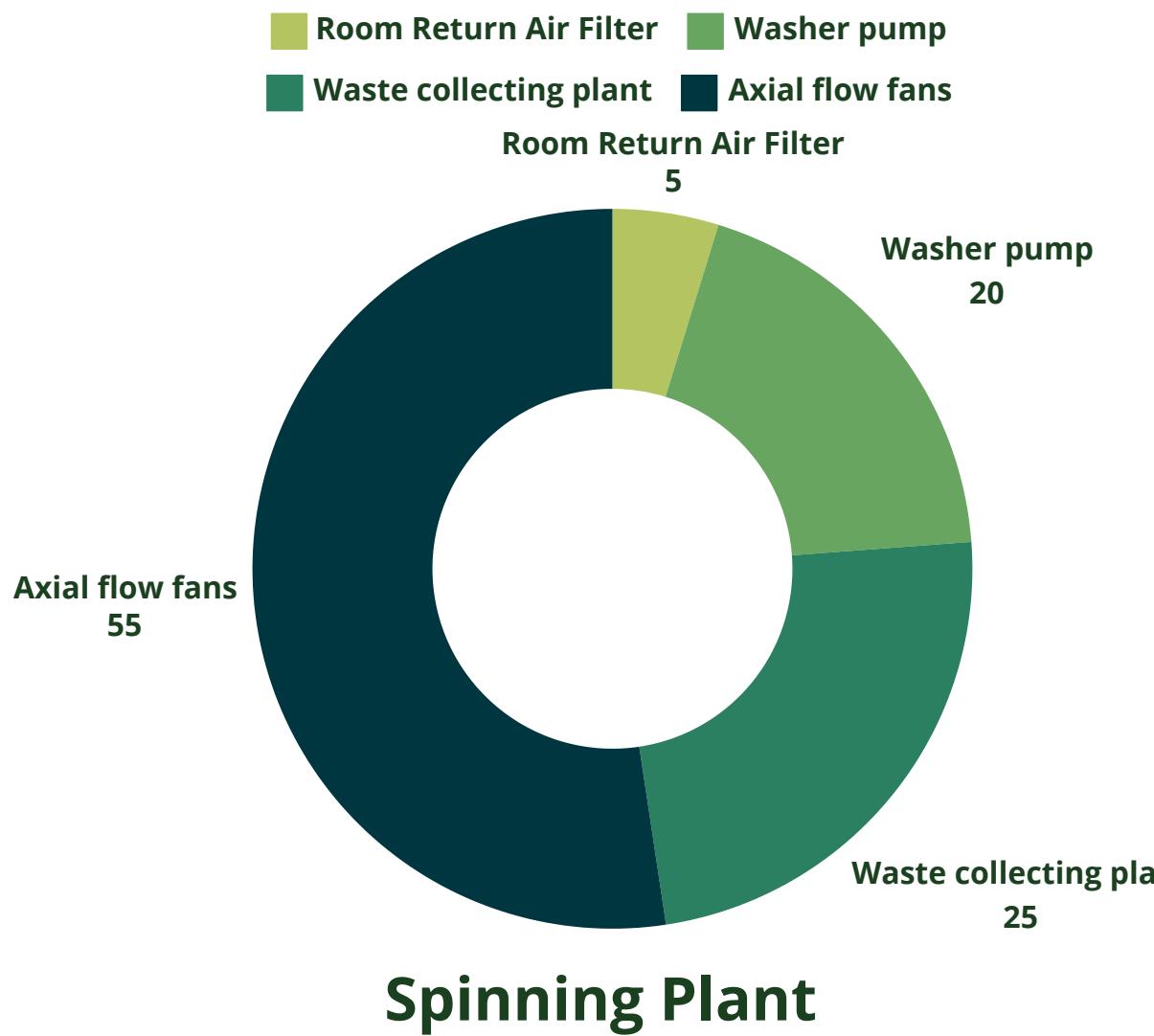
ENERGY SAVING VENTILLATION
SOLUTIONS FOR TEXTILE INDUSTRY

AeroVortex Hybrid Carbon Composite Fans

Significantly minimize your energy consumption

Axial fans are the primary energy consumers within air conditioning or filtration systems in textile mills.

In spinning mills, they constitute approximately 55% of total electrical energy consumption, while in weaving mills, this figure can climb up to 75%. Eureka has implemented strategies aimed at mitigating and lowering this electricity usage.



Features & Advantages

Introducing our AeroVortex Hybrid Carbon Composite Fans. This material opens up new design possibilities compared to aluminum fans.

Developed through R&D collaboration with professors at Delft University of Technology, Netherlands.

Delivers guaranteed 20% reduction in energy consumption while maintaining or improving the airflow

Advantages of our AeroVortex Hybrid Carbon Composite Fans

Broader chord length with reduced weight

Higher efficiency due to improved dynamics

General adaptability to complex geometries

Higher strength to weight ratio

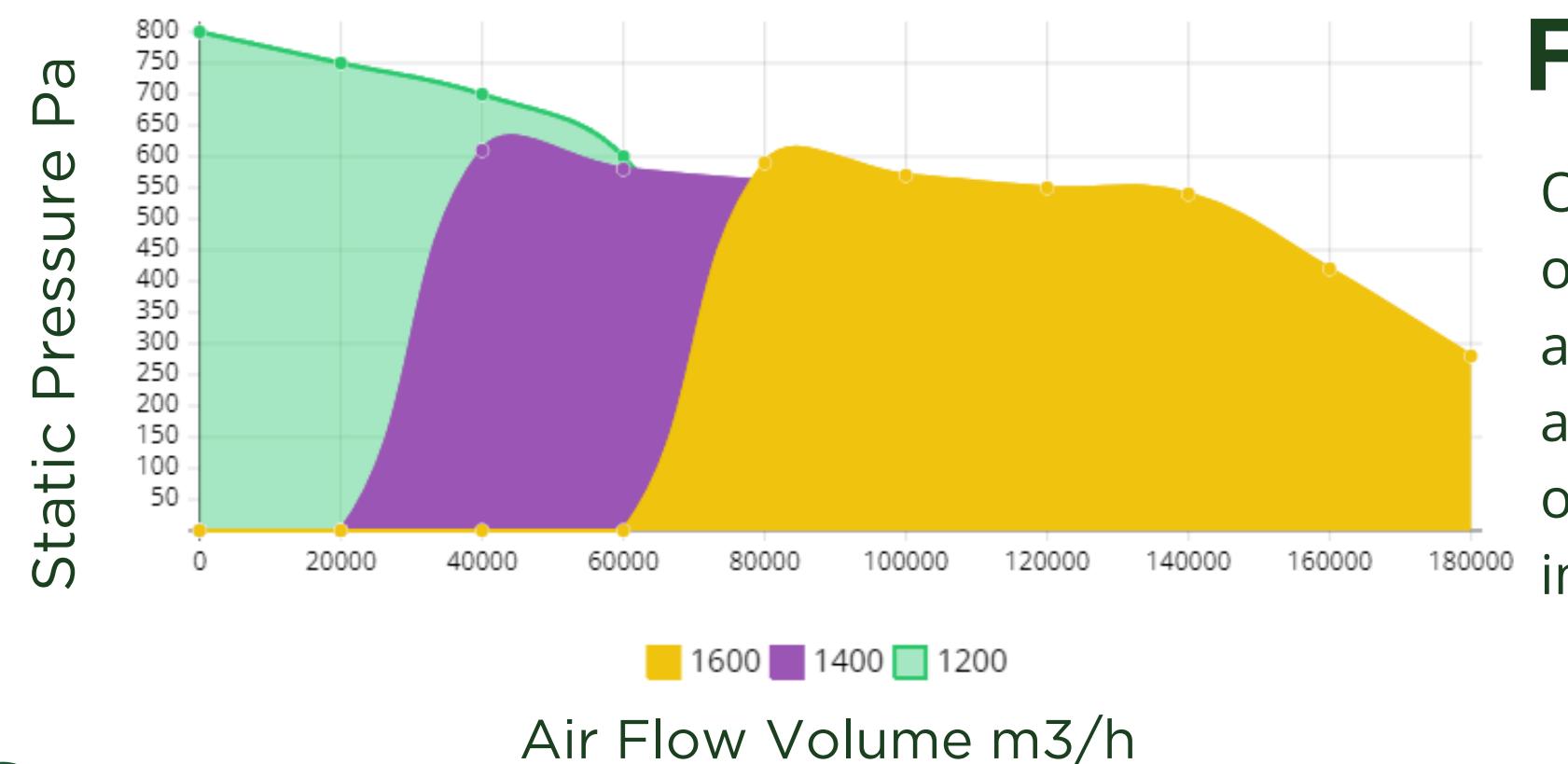
Engineered for broad operating spectrum of static pressures

Geared towards enhancing the efficiency of current systems



Increased effectiveness

The fan's blades are specially designed for maximum airflow and efficiency. High-quality materials and modern production methods allow for these unique blade shapes, which greatly improve the fan's performance. The benefits of our AeroVortex Fan include lower power usage, better fan performance, lighter weight, and quieter operation. Compared to traditional aluminum blades, it's much more efficient.



Fan Selection

Our selection software determines the optimal combination of fan type, size, and blade pitch angle. It allows for adjusting the airflow precisely to the operating conditions by modifying the impeller blade pitch as needed.



* Because of such demanding conditions, many manufacturers have tried using FRP fans in place of the aluminium but failed

Material properties and manufacturing process

Hybrid Carbon Composite materials are processed into pellets suitable for injection molding using an innovative method. During injection molding, individual impeller blades are molded into a solid, high-strength body under heat and pressure.

This process guarantees high precision, excellent surface quality, thinner wall thicknesses, and particularly, thinner leading and trailing edges for improved aerodynamics.

Furthermore, a lighter hub design enables additional weight reduction, achieving up to a 60% decrease in fan weight.

Available fan sizes



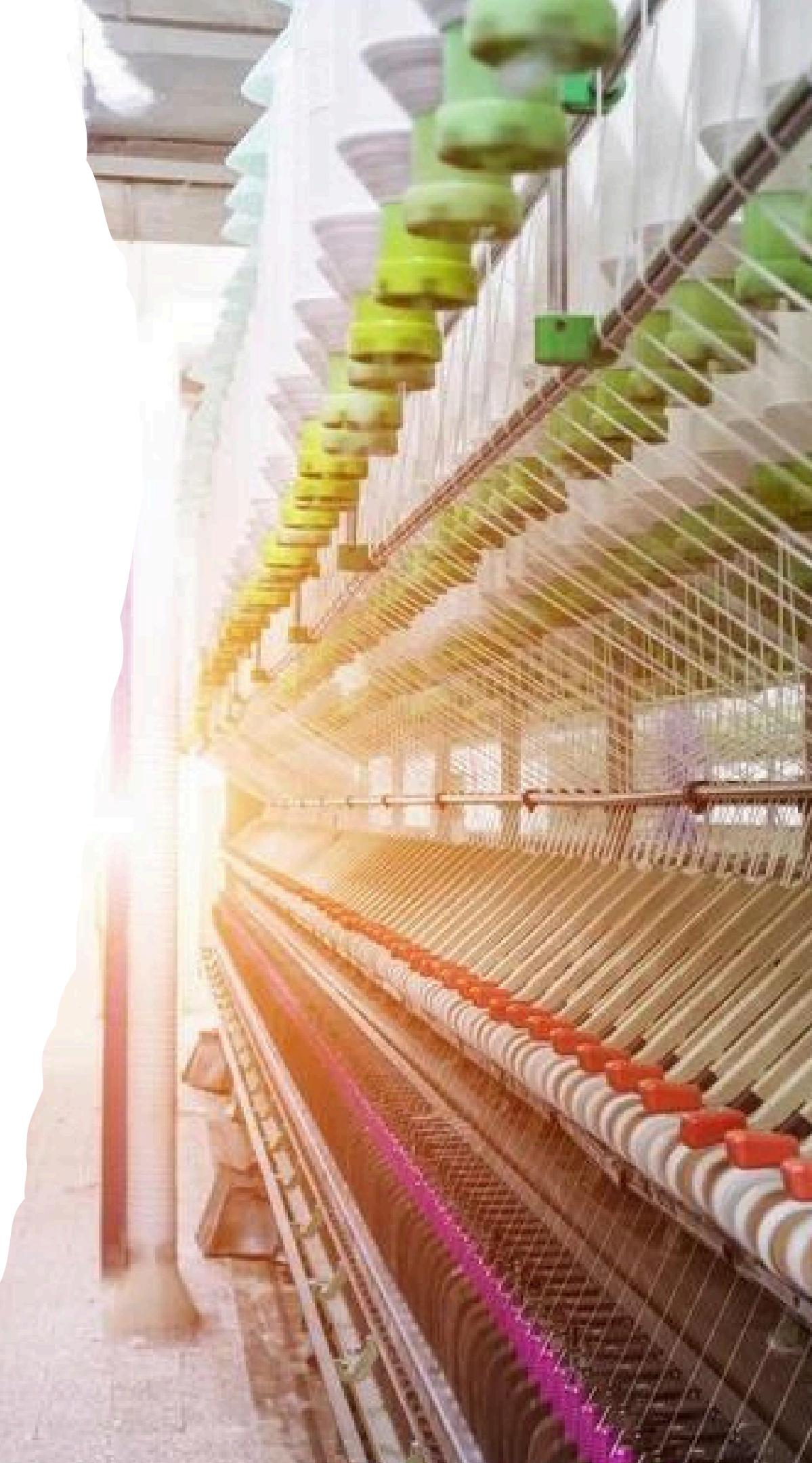
1600 mm



1400 mm



1200 mm



Case Study - Manjeet Global (MP)

H Plant Return Fans Replacement

Manjeet Global's Satrati facility in MP has 2 return fans and 2 supply fans

Since return fans typically undergo higher static pressure, it was decided to replace the return fans initially



LUWA Fan



Eureka Fan

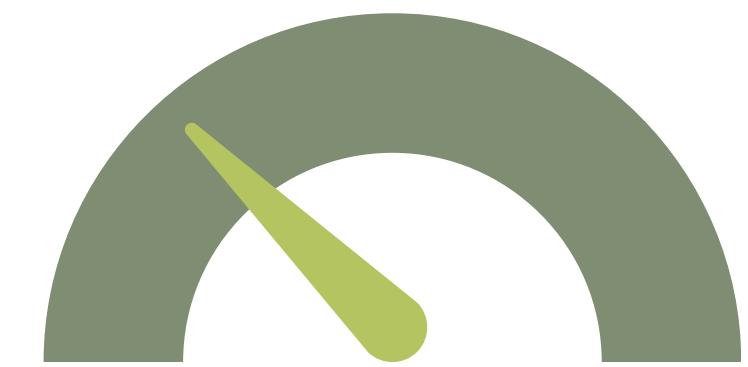


Case Study - Manjeet Global (MP)

H Plant Return Fans Replacement

PERFORMANCE SUMMARY			
H - PLANT SECTION D - MANJEET GLOBAL - SATRATI			
CATEGORY	HEAD	LUWA FAN	
POWER	POWER CONSUMPTION (kW - BEFORE)	20.6	21.1
	POWER CONSUMPTION (kW - AFTER)	15.2	15.15
	POWER SAVING (kW)	5.4	5.95
	POWER SAVING (%)	26.2%	28.2%
	ANNUAL RUNNING HOURS	8400	8400
	UNIT PRICE (RS/KWH)	7	7
	ANNUAL POWER SAVINGS	3,17,520	3,49,860
AIRFLOW	AIRFLOW (BEFORE – OVER 210 POINTS)	444.34	
	AIRFLOW (AFTER – OVER 210 POINTS)	490.14	
	AIRFLOW INCREASE	45.8	
	AIRFLOW INCREASE (%)	10.3%	

Power Savings



27%

Airflow Increase



10.3%

Our AeroVortex Range of Fans

SERVICES



Cooling Tower Fans



Exhaust Fans



Mining and Ventilation Fans

- Spares
- Repairs
- Condition monitoring
- Planned maintenance
- Rebuilding or upgrading existing fans
- On-site balancing and laser alignment
- Site supervision
- Installation and commissioning
- Turnkey ventilation contracts

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