



***FTS****Cleanrooms*  
Engineering the Future of Controlled Environments

*Introducing*

# EC + FANS

Pure Competence in Air.



# About Us

FTS is a globally recognized firm, headquartered in the UAE, specializing in turnkey design, building, and end-to-end management of advanced critical controlled environments.

## What Sets Us Apart

With over 20 years of cleanroom expertise, we deliver fully integrated, end-to-end critical controlled environment solutions trusted by industries worldwide.



120+ Life Engineers



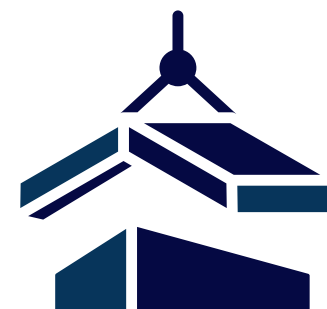
In-House Manufacturing



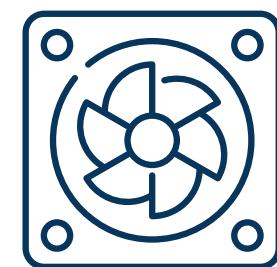
1000+ Projects Executed



25+ Countries Served

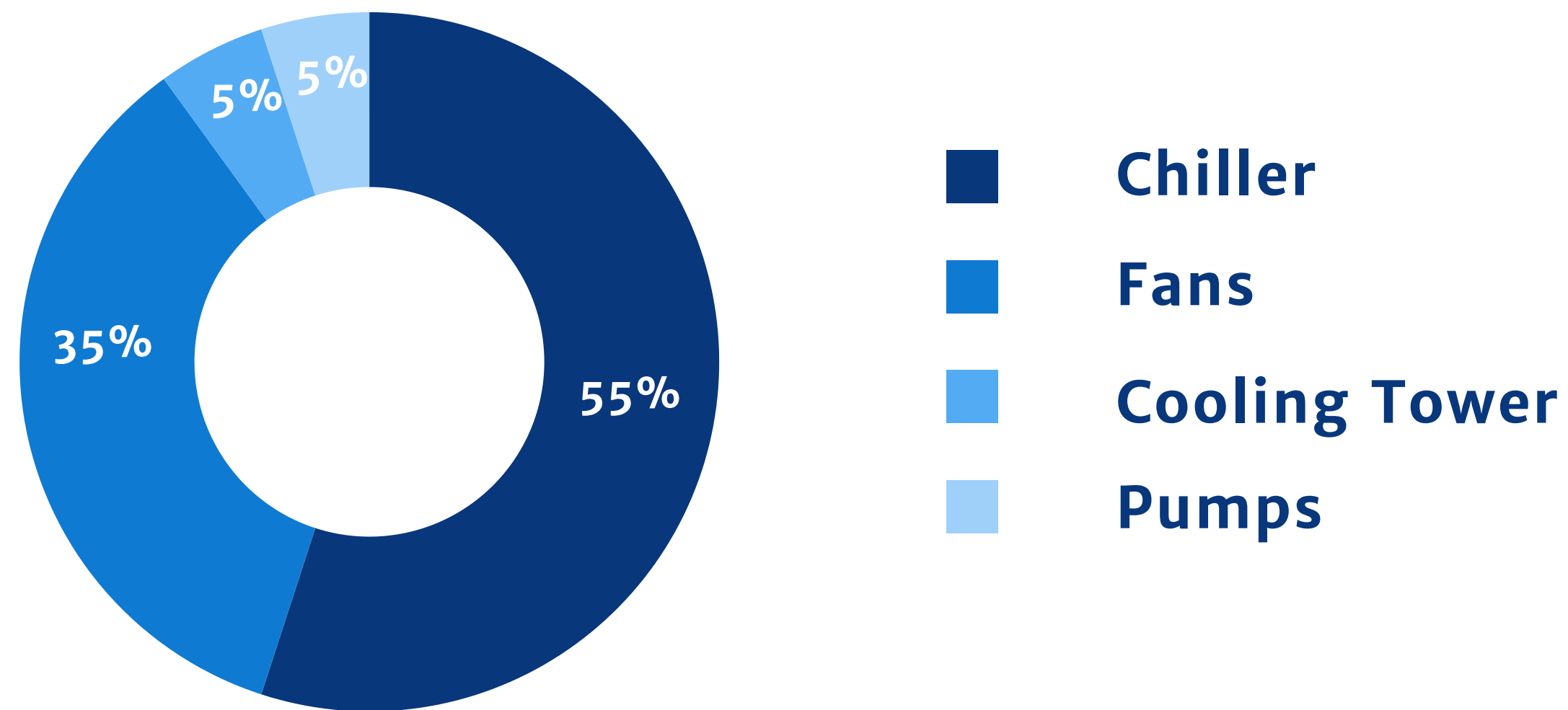


Pre-fabricated Modular Infra



Ec+ Fans System

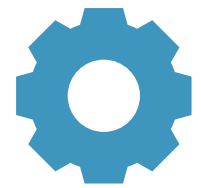
# Energy consumption breakdown for typical HVAC Systems



With chillers and fans driving 90% of HVAC consumption, their efficiency is the critical factor in reducing total building energy costs.

# Want to Cut your Energy Bills Up to 50-60%?

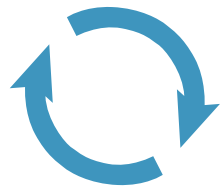
## EC+ Fans Make it Possible With



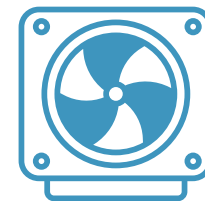
System efficiencies of 85%



Sustainable production



Life time of 20 + years



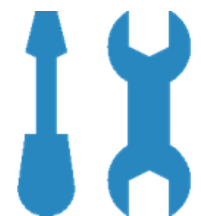
Easy Fan to Fan replacement



Low sound levels



ROI's between 18-30 months



Low maintenance costs



Recyclability rate 98%

# Conventional vs. EC+ Ventilation Systems

## Conventional Ventilation

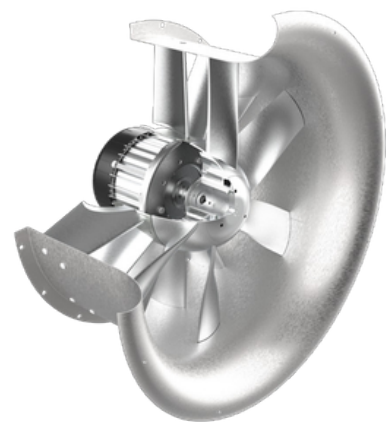
- Operate at fixed speeds, regardless of actual demand
- Result in higher energy consumption
- Cause increased operating costs
- Lead to unnecessary wear and tear on equipment

EC+ Fans focus on optimizing the components that have the greatest impact on overall system efficiency.

## EC+ Ventilation Concept

- Combines optimized axial fans
- Uses high-efficiency permanent magnet motors
- Integrates intelligent variable-speed drives
- Delivers precise, demand-based airflow control

## EC+ EFFICIENCY EQUATION



92%

X



95%

X



98%

=



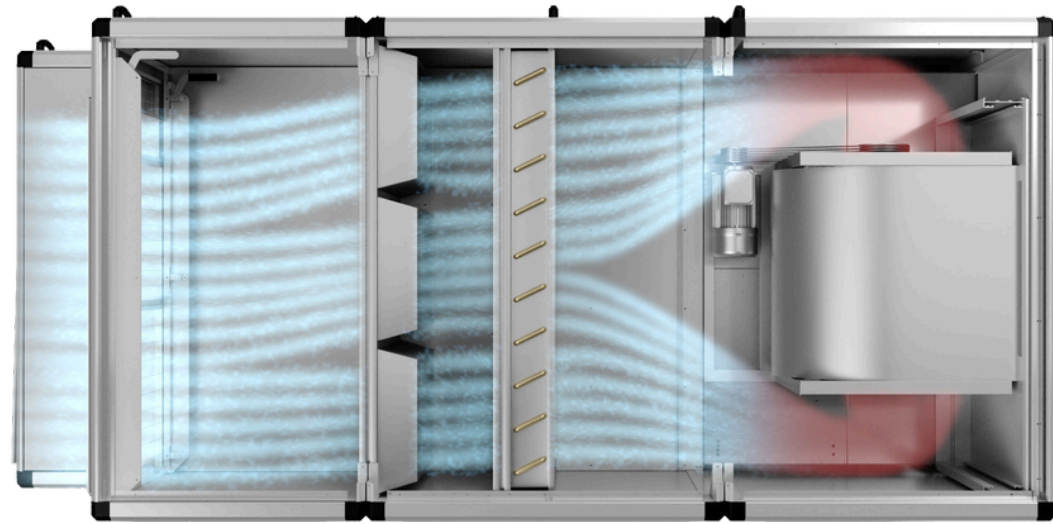
85%

## ENERGY SAVINGS WITH EC+ FAN

- TYPICALLY 30-35% BY RETROFIT OF OLD PLUG FANS
- TYPICALLY 40-50% BY RETROFIT OF OLD CENTRIFUGAL FANS

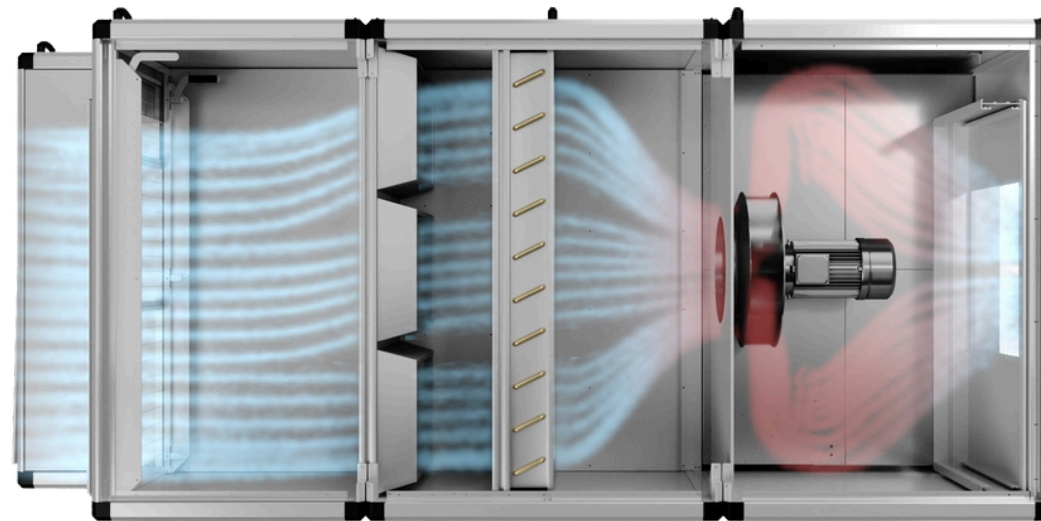
# Efficiency Comparison

**CENTRIFUGAL FAN**



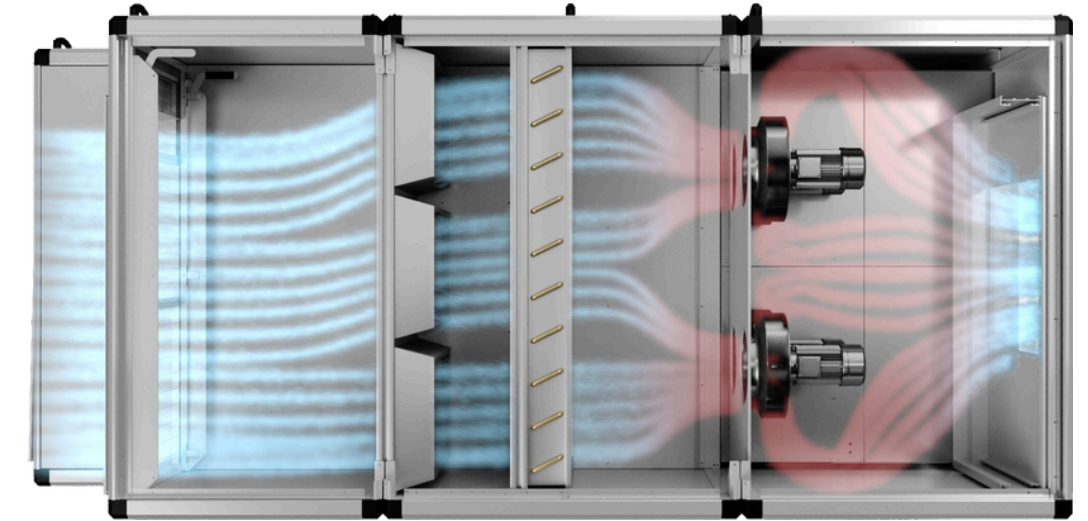
**TOTAL EFFICIENCY  $\approx$  63%**

**PLUG FAN**

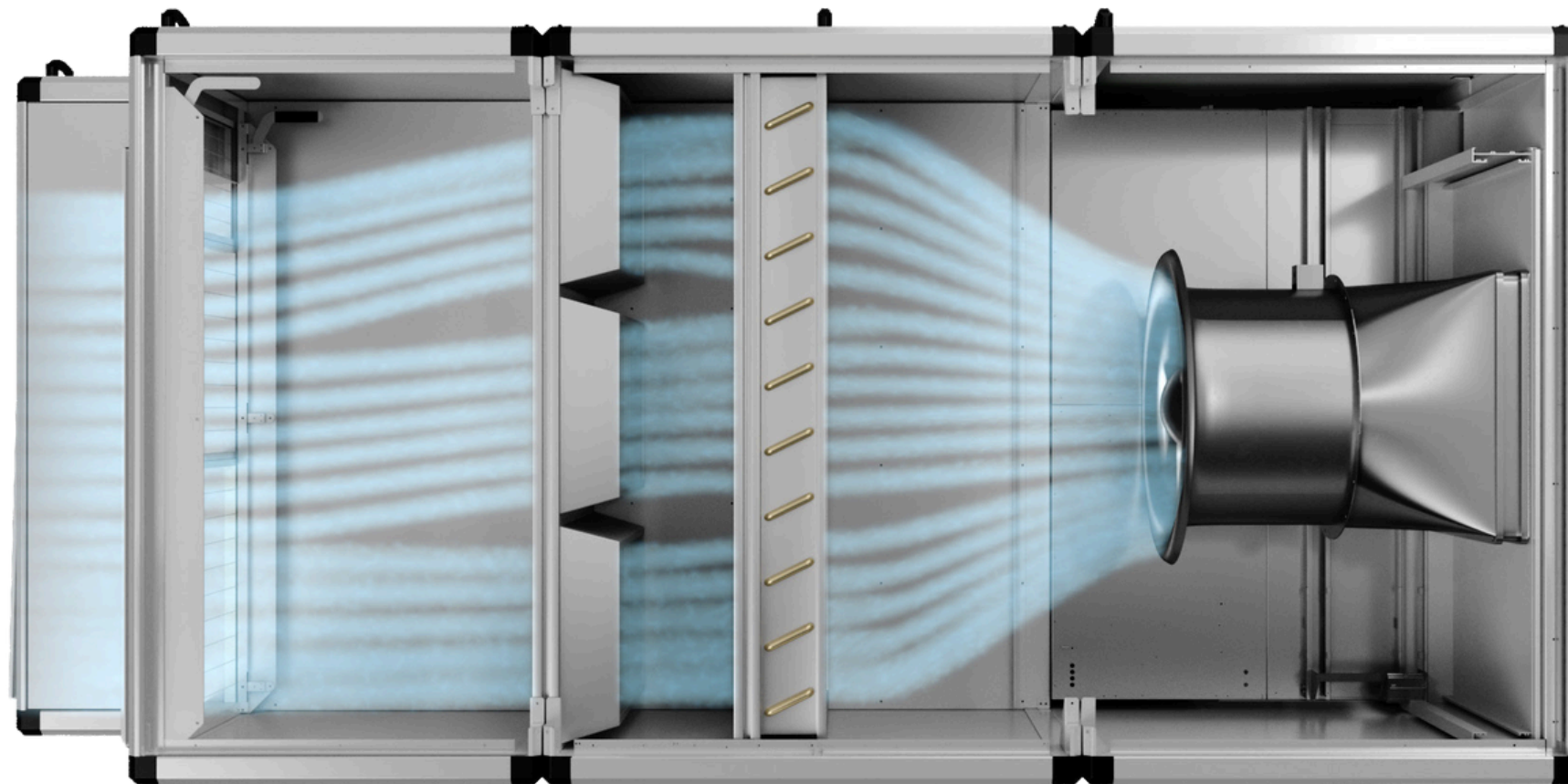


**TOTAL EFFICIENCY  $\approx$  68%**

**4 x EC PLUG FAN**



**TOTAL EFFICIENCY  $\approx$  70%**



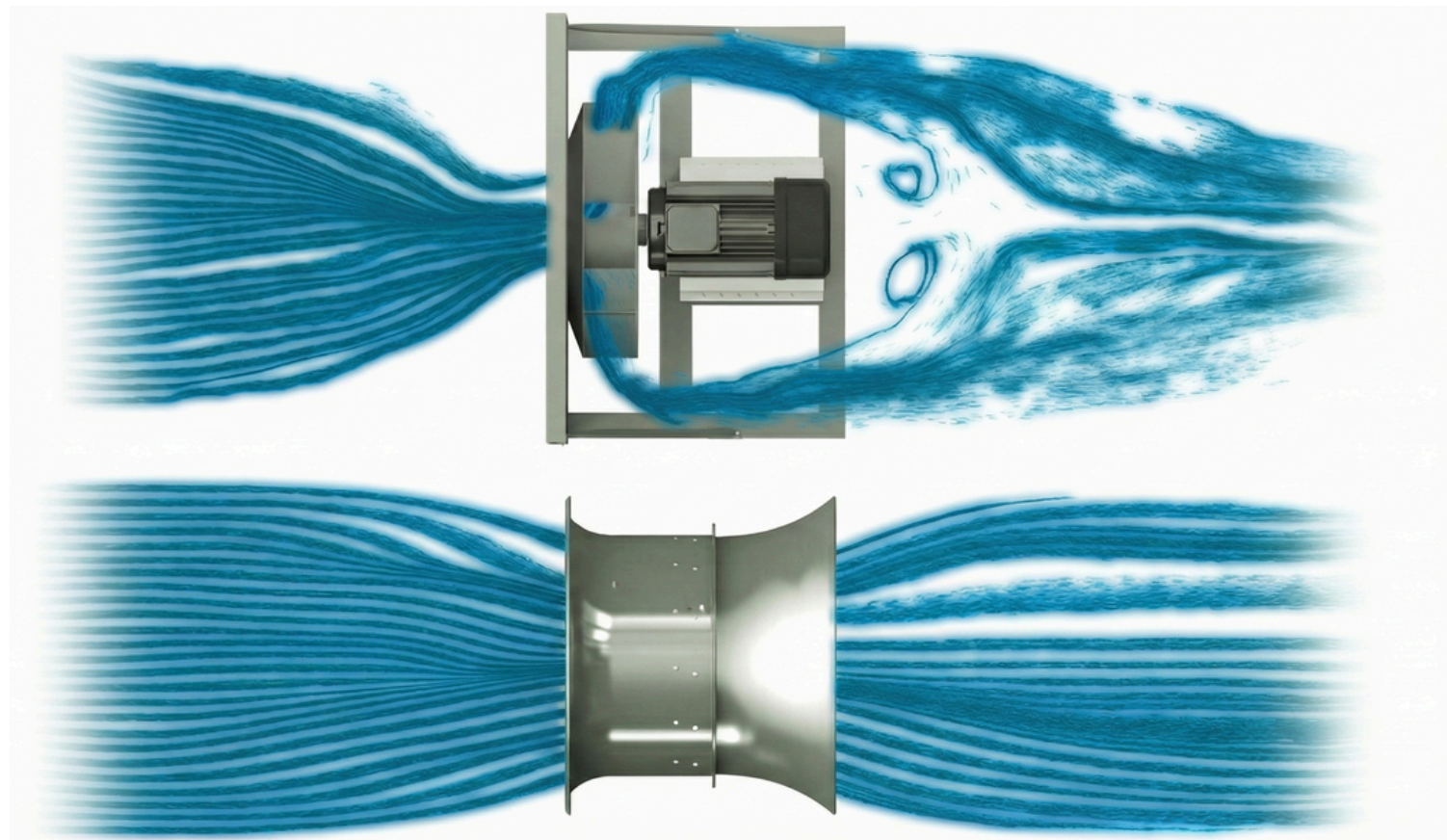
## **EC+ FAN**

**TOTAL EFFICIENCY  $\approx$  85%**

- EC+ fans (92%)
- PM motor (95%)
- VFD (98%)

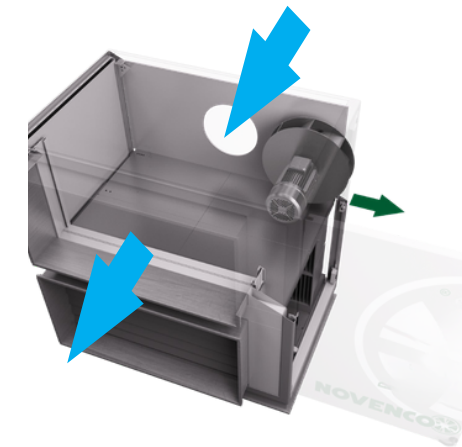
# Dynamic Pressure is the Answer.

EC+ Fans maximize fan efficiency through dual-pressure utilization, which is critical for reducing the carbon footprint of ventilation systems.

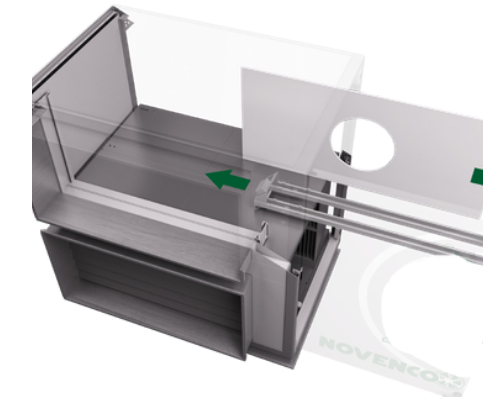


Difference in air flow between centrifugal fans and EC+ axial fans

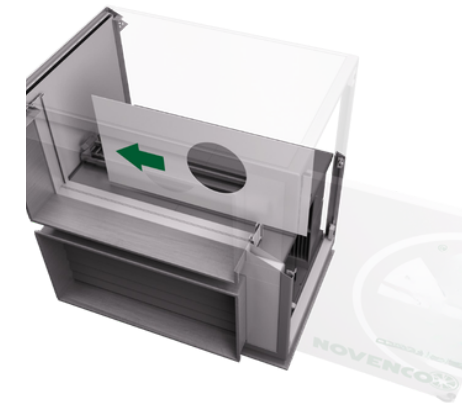
## Retrofit in Less than 10 Hours



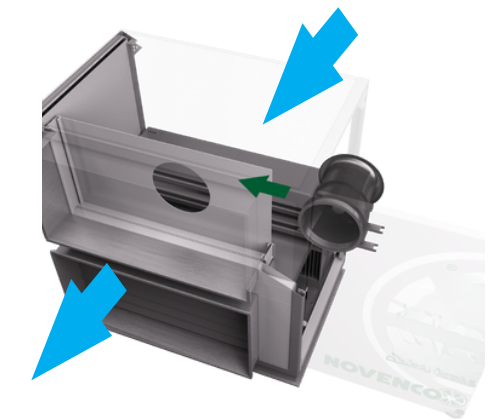
1 Remove old plug fan



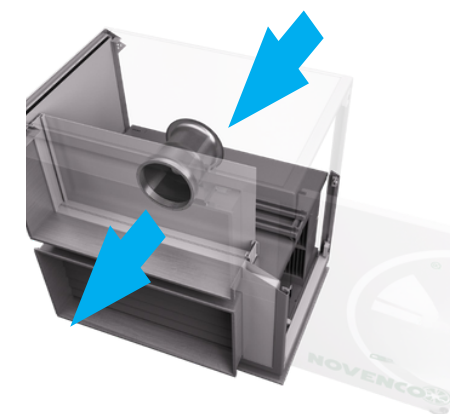
2 Remove internal panel and install rails



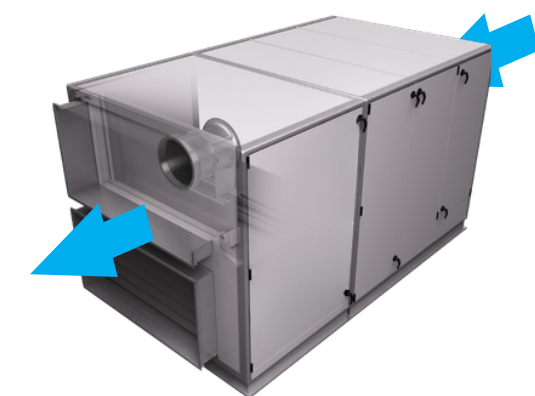
3 Insert internal panel



4 Install EC+ Fans on rails



5 EC+ Fans installation complete



6 AHU upgrade done

# CASE STUDIES

**BKT  
TYRES**  
INDIA



Promised  
energy saving



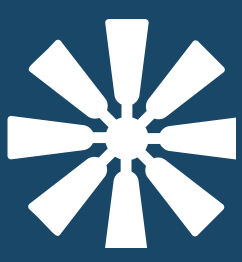
40%-45%

Realised  
energy saving



55%-60%

Airflow before  
(CMH)



84,38,545

CO<sub>2</sub>  
reduction



5022 tons

Sound level  
(DCB)



-12%

**JK  
TYRES**  
INDIA



Promised  
energy saving



30%

Realised  
energy saving



50%

Airflow before  
(CMH)



23,735

Airflow after  
(CFM)



23,777

Sound level  
(DCB)



-10%

# CASE STUDIES

## ZYDUS CADILA HEALTHCARE

AHMEDABAD, INDIA



Promised  
energy saving



20%

Realised  
energy saving



34%

## CARLSBERG

DENMARK



Energy  
savings



43%

kWh saving



438.872

CO2 reduction



ANNUAL  
161 tons

Cost saving



60.000 €

ROI



2,2 years

# CASE STUDIES



## KEPPEL BAY TOWER, SINGAPORE

Energy savings



47-49%

Savings in existing ACMV



10-15%

Savings of total building energy



5-7,5%

ROI  
8000 h/y



3 years

ROI  
3500 h/y



6,1 years

# Our Trusted Clients



Mercedes-Benz



Zydus Cadila



# *FTS Cleanrooms*

## **EC+ Fan**



**+971 50 213 6044**



**marketing@ftscleanrooms.com**



**Office - 804, Shadow  
Tower, Corniche Road, Al  
Mamzar, Sharjah, PO Box  
118672, UAE**

