

TFA with Heat Recovery Wheel (HRW)



The TFA with Heat Recovery Wheel is engineered to deliver superior indoor air quality while significantly reducing energy consumption. Designed for commercial and industrial spaces, this advanced unit ensures a steady supply of treated fresh air without compromising on sustainability or comfort. With a high-efficiency sensible or enthalpy wheel that recovers up to 85% of exhaust air energy, it offers a sustainable, cost-effective solution for IAQ compliance and energy optimization. Ideal for green buildings, hospitals, offices, and manufacturing setups, this TFA unit is built to perform—efficiently and intelligently.

Features

- High-efficiency sensible/enthalpy wheel recovers 70–85% energy from exhaust air
- Ideal for IAQ compliance in commercial and industrial spaces
- Energy-Efficient Fans
- Multi-Stage Filtration
- High-Efficiency Coils
- Corrosion-Resistant Wheel Media

Benefits

- Energy Savings
- Improved Indoor Air Quality (IAQ)
- Lower Operating Costs
- Compliance with Green Building Norms
- Enhanced Comfort
- Minimal Environmental Impact
- Year-Round Performance
- Low Maintenance

Product Technical Specifications – Product Range

1. Airflow Capacity:

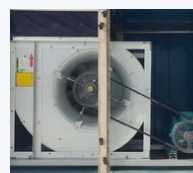
- Ranges from 1,000 CFM to 60,000+ CFM

2. Filtration:

- G4 (pre-filter), F7–F9 (fine filter)

3. Fan Section:

- EC / backward curved centrifugal / plug fans
- VFD compatible

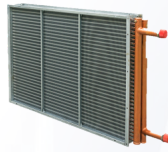


4. Cooling / Heating Coils:

- Copper tubes with aluminum fins
- Chilled water / DX / electric heating coils

5. Heat Recovery Wheel:

- Sensible or enthalpy type; up to 70–85% efficiency



6. Wheel Media:

- Aluminum or epoxy-coated surface (anti-corrosive)

7. Motor Efficiency

- IE3 / IE5 compliant energy-efficient motors

8. Accessories:

- UV-C lamps, differential pressure gauges, CO₂ sensors, fresh air dampers

Product Construction Details

1. Casing/Frame:

- Rigid, galvanized or powder-coated steel Stainless Steel, Aluminium
- Modular, double & single skin panel construction
- Extruded Aluminium Profile Frame Work (Thermal break & Non-Thermal break)

2. Insulation:

- 25 mm to 50 mm thick insulation (Density-40 kg/m³ (48 kg/m³, 64 kg/m³, 96 kg/m³ - Optional) (PUF, Glasswool, Rockwool, PIR)
- Provides thermal insulation and acoustic insulation

3. Base Frame:

- Heavy-duty steel or aluminum base
- Designed for floor mounting and vibration isolation

4. Panels:

- Removable or hinged access doors
- Inner skin: galvanized steel (pre-coated or powder coated), stainless steel, aluminium
- Outer skin: pre-coated, powder-coated steel, stainless steel, aluminium

5. Drain Pan:

- Sloped stainless steel design
- Anti-corrosive and insulated to prevent condensation buildup

6. Fan Section:

- Mounted on anti-vibration mounts
- Direct drive or belt-driven centrifugal fans

7. Coil Section:

- Copper tubes with aluminum fins
- Housed in corrosion-resistant frames with drain connections

8. Filter Section:

- Pre-filters in slide-in frames
- Fine filters, HEPA filters, Carbon filters, Chemical Filters, Electronic Air Cleaner
- Easy access for replacement

9. Optional Add-ons:

- UV-C germicidal lights
- CO₂ sensors, differential pressure gauges
- Fresh air intake louvers with bird/insect screens

Product Certifications

1. Eurovent Certified : (Standard EN 13053 & EN 1886)

- Casing strength class : D1
- Casing air leakage class at -400 Pa : L1
- Casing air leakage at +700 Pa : L1
- Filter bypass leakage class : F9
- Thermal transmittance class : T2
- Thermal bridging factor class : TB2



2. AHRI Certified : Standard 1350

- Casing Deflection Rating Class (Positive) : CD4
- Casing Deflection Rating Class (Negative) : CD4
- Casing Air Leakage Class (Positive) : CL2
- Casing Air Leakage Class (Negative) : CL2
- Thermal Transmittance Class With Leakage : CT2
- Thermal Transmittance Class Without Leakage : CT2
- Thermal Bridging Class : CB2



3. CE Certified : (EN ISO 12100:2010, EN 60204-1:2018)

4. ISO Certified : (ISO 9001:2015)

5. AHRI Certified Chilled Water Coils : AHRI Standard 410

6. AHRI Certified Hot Water Coils : AHRI Standard 410

Applications



Healthcare / Hospitals



Entertainment Venues



Food & Beverage Industry



Commercial Buildings



Educational Institutions



Retail & Malls



Data Centers & Server Rooms



Industrial & Manufacturing



Hotels & Hospitality



Laboratories

Our Presence



Sales & Support Offices

Ahmedabad | Bengaluru | Chennai | Delhi | Gurugram | Hyderabad | Jaipur | Kanpur | Kolkata | Mumbai | Pune

Corporate Office

Gurugram

DLF Corporate Greens,
Tower No. - 4, 12th Floor,
Southern Peripheral Road,
Sec - 74A, Gurugram -
122004, Haryana

Manufacturing Facilities

Haryana

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Old Industrial Area,
Bahadurgarh-124507
Haryana, India

Maharashtra

343 & 343/1/A,
Village Lahe, Mumbai-
Nashik Highway,
Taluka Shahpur,
Thane - 421603

Karnataka

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