STROBIC AIR TECHNOLOGIES

Duo-Stack Exhaust System

The Duo-Stack™ System: Enhanced Efficiency for General Lab Exhaust Solutions

Duo-Stack fans are side-centrifugal induced dilution, high plume exhaust fans that are **certified and licensed** to bear the AMCA 210, AMCA 260 and AMCA 300 seals. Duo-Stack fans offer a unique fan style where the motor is located to the side of the fan for **easy roof level access**. The Duo-Stack system is ideal for exhaust in laboratories, hospitals, universities, and schools. It is also a great choice for high static or high temp applications.

Advantages:

- The side-centrifugal backward-curved fan is designed to handle **large air volumes and higher pressures while still maintaining efficiency** in moving air against ductwork resistance.
- Due to their high efficiency and ability to handle higher pressures, backward-curved fans can **contribute to overall energy savings** by requiring less power to achieve the desired airflow and pressure conditions.
- The backward-curved fan design inherently provides **stable performance characteristics**, meaning the fan's performance curve remains relatively consistent even when subjected to varying pressures and airflow conditions.
- A true **direct drive motor** provides the longest L-10 life.
- The Duo-Stack fan offers the **lowest vibration levels available**; BV3 standard, up to BV5 industry leading.
- Industry leading **coating with 7,000 hr. salt spray resistance** is standard while AMCA A,B,&C options are available for **spark resistance construction**.
- The Duo-Stack comes with a **standard 3-year warranty**. Extended warranty and preventative maintenance package upgrade available.
- A modular plenum allows for **ease of installation**.
- **Heat recovery options** are available.

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Advantages of Centrifugal Blade and Housing:

Efficiency
Backward-curved blades are designed to handle **higher pressures and are more efficient** in moving air against ductwork resistance.

Lower Noise Levels
The gradual curve of the blades minimizes air disturbance, resulting in **quieter operation**.

High Airflow
Backward-curved fans **can handle large volumes of air** while still maintaining relatively high efficiency.

Wide Operating Range
The blades have a **wide operating range**, meaning they can work effectively across a range of airflow rates and pressures.

Low Maintenance
Direct drive backward-curved fans **have fewer blades** compared to other designs like forward-curved or radial fans.

Less Sensitivity to System Changes
These fans are **less sensitive** to changes in system resistance compared to other fan types.

Energy Efficiency
Due to their high efficiency and ability to handle higher pressures, backward-curved fans can contribute to **overall energy savings** by requiring less power to achieve the desired airflow and pressure conditions.

Stable Performance
The backward-curved design inherently provides stable performance characteristics, meaning the fan's **performance curve remains relatively consistent** even when subjected to varying pressures and airflow conditions.

Reduced Risk of Material Buildup
The **curvature of the blades** helps prevent the accumulation of dust and debris on the blade surface.

Motor:

- Premium efficiency TEFC mill & chem duty Toshiba motor.
- L-10 rating – 150,000 hours.
- True direct drive.
- Roof level motor access easing motor change outs.

Applications:

- Academic (K-12, non-research universities and colleges).
- Hospitals (general exhaust, small pharma, clean rooms).
- Non-research related chemical processing.
- High static application (scrubber or HEPA filtered).
- Higher temp applications 1,200°F inlet temps with a max mixed air temp through to the fan of 450°F.

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