



INDUSTRIAL EXHAUST (IE) FANS

Daltec Industrial Exhaust (IE) Fans are ideal for handling light to heavy dust loads, material handling and pneumatic conveying. Our impellers are designed to maximize efficiency while rugged construction ensures a long reliable life.

Industrial exhaust fans are available from 9" to 93" diameter, in three classes of construction based on RPM (15K, 19K and 22K). Custom fans can be designed for tip speeds in excess of 30000 fpm with a maximum operating temperature of 1500°F. Units are available in both belt and direct drive arrangements including 9V (Vertical fan shaft) and 4V (vertical motor shaft). Large fans generally utilize arrangements 7 & 8 where larger motor frames are designed for mounting on integral motor bases.

This series offers three impeller styles. Daltec's DAW impeller is a high efficiency model suitable for light to medium dust loading. The heavy duty DMW impeller is suitable for heavy dust loading and material conveying. Our extremely rugged DMW-CT is used for applications where the air stream includes paper trim or long stringy materials.

Take a load off your mind...with a Daltec Fan.

Design Features

- Standard design suitable to 250° F
- Available in 8 discharge positions
- Wheel diameters from 9" – 93"
- Capacities to 75,000 CFM
- Heavy gauge construction
- Pressure to 20" SP



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STANDARD DESIGN FEATURES

Heavy Duty Impellers:

Constructed of single thickness, steel blades, welded firmly to the finely spun shroud and backplate. Reinforcement is added depending on size and class of construction. Narrow, wide, double wide and custom widths and diameters available. Every impeller is dynamically and statically balanced to ANSI standard G6.3 to prior to fan assembly.

Housing:

Continuously welded heavy gauge carbon steel housing structure, with intermittently welded support stiffeners and bracing of heavy gauge structural steel. Intermittent welds are caulked to prevent corrosion. Housings are rotatable on sizes 122 – 330. Fixed housings on sizes 365 and up.

Arrangements:

Single wide arrangements 1, 1BM, 4, 8, 9 & 10. Other and special arrangements are possible.

Bearings:

Standard bearings are heavy-duty pillow block type. L10 bearing life of 40,000 hours. Where necessary, bearings are accessible for lubrication.

Lifting Lugs:

Standard features on all units. Lifting lugs aid in the installation and handling of the unit.

Inlet & Outlet Connections:

Slip-fit (straight) inlet and outlet connections come standard. Flanged & drilled are optional.

V-Belt Drive Sets:

Drive sets are selected based on fan speed and horsepower. All drive belts are oil, heat and static resistant. Two types of v-belt drives are available:

- **Adjustable pitch drives** allow motor sheave to be adjusted about 10% from original fan speed. Adjustment is done when fan is stopped. Typically used in lower horsepower (under 10HP) applications.
- **Fixed pitch drives** do not allow for speed adjustment without changing at least one sheave. Typically offer less expense and lower vibration levels over adjustable pitch drives.

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Motors:

Motors are application specific. Daltec can provide one to meet your particular specifications. Motors are factory mounted depending on size, application and customer requirements.



Maintenance Features:

Daltec make servicing your fan quick and easy. Bearings, v-belt drive sets and motors are accessible for ease of lubrication, adjustment and wiring.

Inlet Cone:

Provides a smooth efficient entry of airflow into the fan impeller.

Balancing:

Every impeller is precision balanced prior to fan assembly.

Shafts:

Ground and polished with keys at both ends.

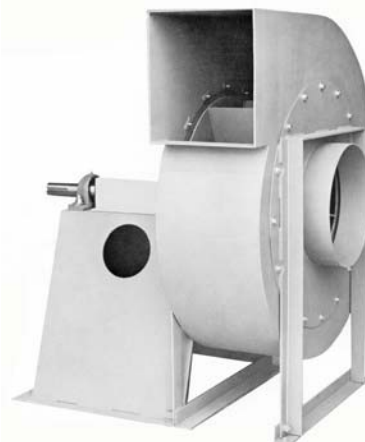
Finish:

Industrial grade air dry enamel-alkyd with a semi-gloss finish. For outdoor applications and temperatures of 250°F. Other coatings and colours are available on request.

Rotation & Discharge:

Clockwise and counterclockwise rotations are available in the eight standard discharge positions.

AMCA “A”, “B” or “C” Spark Resistant Construction also available



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OPTIONAL ITEMS & ACCESSORIES

Exotic Material Impellers:

Impellers constructed from aluminum, stainless steel, titanium or hasteloy are available on request.

Exotic Material Housings:

Housing constructed from aluminum, stainless steel, titanium or hasteloy are available on request. Please contact the factory for other metal requests.

Arrangements:

Single wide and modified arrangements are available to suit your specific need and application.

Bearings:

Anti-friction ball or roller bearings for grease or oil lubrication and water-cooled journal type bearings are available. Specific L10 life as requested. Temperature and vibration sensing devices can also be installed for you. Daltec can meet or exceed all of your bearing specifications.

Finish:

Non-standard paint finishes; epoxy, heresite Teflon, rubber and special colors are available on request.

Inlet & Outlet Connections:

Flanged & drilled inlet and/or outlet are available upon request. Safety guards are available.

Shafts:

Monel, stainless steel and other materials are all available. Larger shafts are stress relieved prior to machining.

Drains:

Standard NPT fitting welded to lowest point in housing.

Guards:

Belt and shaft guards protect personnel from moving parts while permitting circulation of air around drive components. Inlet and outlet guards are available for non-ducted applications. All guards meet OSHA standards.

Unitary Bases:

Rigid welded structural steel base used to provide a common support for fan and motor. Typically used on larger fan/motor combinations.

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High Temperature Applications:

Fans over 300°F require special protection. Heat slingers are used to dissipate heat along the motor shaft. Motor heat shields help deflect heat away from motors. High temperature shaft seals and special grease work to prolong bearing life.

Access Doors:

Three styles of access for maintenance and inspection are available. Bolted, hinged and quick release.

Shaft Seals:

Helps reduce airstream leakage and prevents air stream contaminants from escaping along the drive shaft damaging bearings. Our standard is a plate or lip seal. Daltec can provide many different types of seals, such as stuffing box, labyrinth or mechanical carbon ring. Each comes with varying degrees of protection.

Split Casing/Housings:

Split housings in a variety of fashions are available dependant on shipping and/or maintenance requirements.

Inlet Boxes:

Ensures efficient airflow entry with a minimum pressure loss. Inlet boxes are designed to meet fan specific performance requirement.

Liners / Wear Plates:

Removable, replaceable and wear resistant liners for impellers and housings. Usually fabricated from wear resistant steel, chromium carbide overlay or tungsten carbide overlay.

Control Dampers:

Parallel blade, opposed blade or variable inlet vane dampers can be installed directly on fan outlet or directly on an inlet box. Electric or pneumatic damper actuators can be provided as well.

Couplings:

Many different couplings are available including flexible grid, flexible disk and gear types. Spacers can also be provided.

Vibration Isolators:

Aids in reducing fan vibration. Rubber in shear and a number of spring type isolators are available.



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