



## RADIAL TIP FANS (DRT)

Daltec have designed their Radial Tip (DRT) fan series with heavy duty installations in mind. The DRT radial tip blade is designed for applications involving medium to heavy dust loading. The radial tip impeller offers a self-cleaning feature, which makes this fan ideal in air streams that include heavy particulate or material that can build up on fan blades.

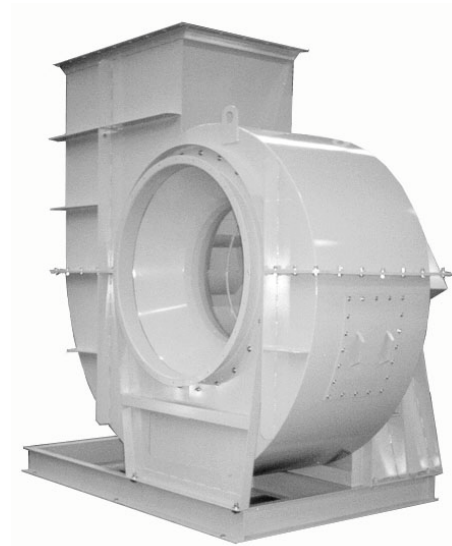
The DRT fan series comes in 5 widths ensuring maximum efficiency and a wide performance range. Standard diameters range from 24.5 inches through to 98 inches. Custom sizes and materials are always available.

DRT fans are perfect in many applications including: iron, steel and aluminum foundries, cement plants, brick manufacturing, mining smelters, pulp and paper facilities and petro-chemical processing.

At Daltec we don't sweep dirt under our fans ...we blow dirt right through them.

### Design Features

- Clockwise or counter clockwise rotation
- Available as either belt or direct drive
- Standard designs suitable to 250 F
- Wheel diameters from 24.5" – 98"
- Continuously welded housings
- Multiple discharge positions
- Multiple arrangements



**RADIAL TIP FANS (DRT)**



## STANDARD DESIGN FEATURES

### Heavy Duty Impellers:

Constructed of single thickness, steel blades, welded firmly to a fabricated shroud and back plate. Reinforcement is added depending on size and class of construction. Custom widths and diameters are available. Every impeller is dynamically and statically balanced to ANSI standard G6.3 to prior to fan assembly.

### Housing:

Heavy gauge construction with stiffening supports. Housings can be supplied with factory installed insulation clips for on-site application of acoustical or thermal insulation applications.

### Arrangements:

Single wide arrangements 1, 3, 4, 7, 8 & 9 . 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:

Flanged inlet and outlet connections come standard.

### 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.

## RADIAL TIP (DRT) FANS

### 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:

Our streamlined cone designs are specific to the fan type and size. This allows for efficient entry of airflow into the fan impeller.

### Balancing:

Every impeller is precision balanced prior to fan assembly.

### Shafts:

On DRT fans each fan shaft is custom fit to suit the particular assembly. Shafts can be solid or hollow. Large diameter shafts are stress relieved prior to final machining.

### 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.

### Bearing Pedestals:

Each pedestal is designed to suit the particular bearing installed on each fan assembly. Pedestals are heavy steel fabrications with a machined top face to ensure a parallel mounting surface with either motor or bearings.

**AMCA "A", "B" or "C" Spark Resistant Construction also available**



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**OPTIONAL ITEMS & ACCESSORIES**

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**Exotic Material Impellers:**

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

**Exotic Material Housings:**

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

**Arrangements:**

Single wide, double 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.

**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 may different types of seals, such as stuffing box, labyrinth or mechanical carbon ring. Each comes with varying degrees on 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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