### Everything starts with a process...







### **Daltec Canadian Buffalo Manufacturing Ltd**

### Who We Are:

- A 100% wholly owned Canadian Company
- Daltec established in 1984, DCBM in 2007
- Head Office located in Guelph.
- Engineering, Design and Fabrication in Guelph.
- Agents located in Canada, USA, Chile & China.





### What we do...

- Manufacture a complete line of air moving equipment.
- Daltec offers pre-engineered industrial, centrifugal, axial and OEM fans
- Canadian Buffalo offers a complete custom Engineered solution that is specifically designed for the customers application considering all process and environmental factors
- DCBM offers a complete field service package for fans and blowers, including on-site balancing, vibration analysis, rotor rebuilds and repairs for both our own and competitors fans.
- Manufacture in a wide variety of materials including, high strength steels, stainless steels, FRP, aluminum, abrasion resistant steels, overlay materials, Hastelloy, Inconel, Monel, Titanium, etc.



### Markets we serve...

DCBM has experience to service a wide spectrum of markets, each of which has its own specific demands on the design of the product.

These markets include but are not limited to the following:

- Boiler and Dust Collector Manufacturers.
- Cement Industry.
- Power Generation.
- Chemical, Petro-chemical and Pharmaceutical.
- Pulp and Paper Industry.
- Iron and Steels Mills.
- Mining and Ore Refining.
- Heating and Ventilating Systems.
- Original Equipment Manufacturers.





# **Engineering & Technology**

### Design

Solid modeling for improved accuracy – Solidworks

Computerized shaft and bearing selection

Over 80 years combined fan design experience

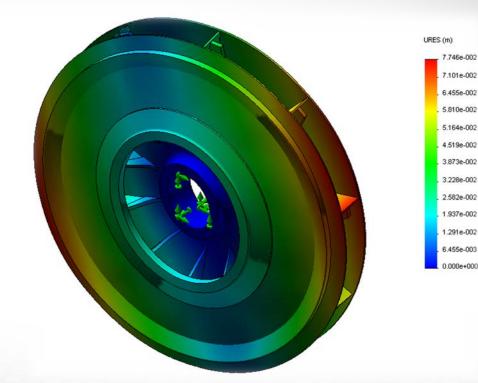




# **Engineering & Technology**

### Analysis FEA Stress Frequency Modal Transient Torsional Fatigue Torsional analysis

Bump Test







# **Canadian Buffalo Product Line**

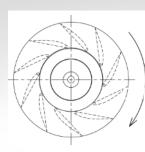
Full line of tested and proven Centrifugal fans.

- Fan Impellers up to 50000 feet/min tip speed.
- Fan Impellers up to 150" diameter.
- Fans to meet API 560 and 673 Specifications.
- High Temperature construction up to 1250 deg. F operation.
- Special designs for temperature gradient requirements of up to 150 deg. F/minute temperature rise (Yankee Dryer fans).



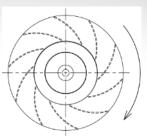


# **Centrifugal Wheel Designs**



#### AIRFOIL TYPE DIAF

Double skin non-overloading airfoil blades
Up to 85% maximum static efficiency
Dust loads up to 1 grain/scf (2.3 grams/nm)
Typical Applications:
Boiler FD/ID Fans
Mine and tunnel ventilation



#### BACKWARD CURVED TYPE DSTA/DBCP

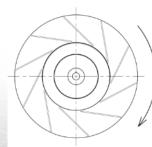
CharaCurved non-overloading airfoil blades

- •Up to 82% maximum static efficiency
- •Dust loads up to 6 grain/scf (14 grams/nm)

#### **Typical Applications:**

•Mechanical draft and process fans

•Bag house exhaust fans



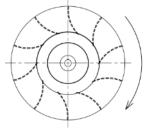
#### BACKWARD INCLINED TYPE BI

•Backward inclined non-overloading flat blades

•Up to 78% maximum static efficiency •Dust loads up to 9 grain/scf (21 grams/nm)

#### **Typical Applications:**

Mechanical draft and process fans
Flue gas desulfurization plants
Bag house exhaust fans



#### RADIAL TIPPED TYPE DRT

•Forward curved radial tipped blades

•Up to 74% maximum static efficiency •Dust loads up to 25 grain/scf (57

grams/nm)

#### **Typical Applications:**

•Gas re-circulation fans, pelletizing plants

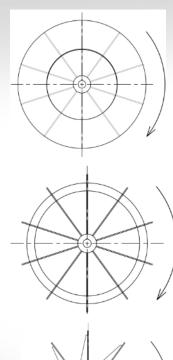
•Sintering plant fans, cement kiln ID fans

•Process streams with high dust loads





### **Centrifugal Wheel Designs**



#### SHROUDED RADIAL TYPE DRBS

- •Shrouded flat radial bladed design
- •Up to 70% maximum static efficiency
  •Dust loads up to 40 grain/scf (92 grams/nm)
  Typical Applications:
- •Metals/iron processing fans.
- •High pressure fans, seal air fans

#### RADIAL OPEN TYPE DRBO

- •Open radial design
- •Up to 62% maximum static efficiency •Dust loads up to 100 grain/scf (230 grams/nm)

#### **Typical Applications:**

- Coal dust conveying fans
- •Cement processing fans.
- General exhaust fans







### **Process Fan Applications**







### **Corrosive Applications**

Mineral Salt Processing
Acid Plants Cleaning
HCl and S0<sub>2</sub> Scrubbing

Features:

Special Alloys and FRP
Teflon Shaft Seals
Low Leakage Const.
EPDM/Teflon Gasket Materials



DSTA 650 Sr. 3057 Cl. 35K DWDI, Backward Curved, Arr't 3D

83,300 cfm,  $\ 52.0$  in wg SP, 100 F° 1715 rpm , 804 BHP

Hastelloy C-276 Construction

DRBS 1148 Sr. 42 SWSI, Radial Bladed Fan, Arr't 8A

30,700 cfm,  $\,$  69 in wg SP, 3600 rpm,510 BHP  $\,$  ,

Titanium Impeller - FRP Casing





# **High Pressure Applications**

- •Baghouses
- Acid Plants
- •High Altitude Installations
- Flotation
- •Gas Sealing

Features:High Speed RotorDesigns

•Special Bearings



DRBS-2200 SR.25R DWDI, Radial Bladed Fan, Arr't 7

32,500 cfm, 149 in wg SP at STP, 1785 rpm and 585 BHP

Carbon Steel Construction



DRBO-1060 x 2 SR.13, 2-Stage Blower 6,500 cfm, 84 in wg SP, 2950 rpm 153 BHP

Hastelloy C-276 w/ FRP Casing



DBCP 485 SR.35 DWDI, Backward Curved Arr't 3B

34,500 cfm, 117 in wg SP, 2950 rpm, 700 BHP

Carbon Steel Construction





# **High Temperature Applications**

Boiler ID FansCement KilnsFurnace ID

Features:

- Centerline Casing Supports
- Radiation Shields
- Heat Flingers
- Increased Tolerances



DRBS 2316 SR.47 SWSI, Radial Bladed Draft Fan, Arr't 7B

92,000 cfm, 29.0 in wg SP, 650  $F^\circ,$  1190 rpm and 602 BHP

**Carbon Steel Construction** 





# **Dusty Applications**

- •Bag Houses
- Cement Plants
- •Blast Furnace Exhaust
- •Scrubbers

Features:

- •Blade Wear Protection
- Casing Wear Liners
- •Chromium Carbide
- •Q&T Steels
- Ceramic Coatings



**130" dia. Backward Inclined DWDI** – Rotor Rebuild,

Carbon Steel w/ Chromium Carbide Wearplates



#### DRBO 1540-85% SR.20, Radial Bladed Exhaust Fan, Arrangement 7B

20,000 cfm,  $\,$  60.0 in wg SP, 80 F° Density 0.071 lb/ft^3 , 1750 rpm and 325 BHP

Carbon Steel w/ Chromium Carbide Wearplates





# **ID Fans Applications**

- Power Boilers
- Baghouses
- Cement Plants

Features:

- •High efficiency Blade Designs
- Low Dust Accumulation
- •Easy Maintenance





#### DIAF 1028 Sr.3080 SWSI, Airfoil Bladed Fan

195,000 cfm, 23 in wg SP, 870 rpm 900 BHP

Carbon Steel Construction w/ Noise Insulation

#### DIAF 770-3130-95 DWDI, Airfoil Bladed Fan

275,000 cfm, 17.0 in wg SP, 120 F°,1180 rpm and 871 BHP

**Carbon Steel Construction** 





### **FD Fans Applications**

Power BoilersHRSG Dilution

Features:

Inlet Filters

•Inlet Silencers & Rainhoods

Inlet Stacks

High Efficiency Rotor
 Designs



#### DIAF 691-3095-100 SWSI, Airfoil Bladed Draft Fan, Arrangement 3A

120,555 cfm,  $\ 35.0$  in wg SP, 100 F° 1475 rpm and 734 BHP

Carbon Steel Construction



#### DIAF 745-3130-100 DWDI, Airfoil Bladed

335,000 cfm, 12.5 in wg SP, 104 F° Density 980 rpm and 992 BHP,

A36 and A242 Carbon Steel Construction





### **Commitment to Excellence**

- DCBM is an ISO 9001-2008 registered company.
- DCBM is certified as a CWB certified shop to W47.1 - 1998 welding standard (Equivalent to AWS D1.1 and D14.6 standards).
- DCBM is a member of the Air Movement and Control Association (AMCA).







MEMBER





### Daltec Canadian Buffalo Manufacturing Itd

Two Great Names, One Great Company!



Daltec Canadian Buffalo – Two Great Names, One Great Company!