An ISO 9001: 2015 Certified Company

AIROCHEM Engineering Company

AEBC SERIES • SELECTION SOFTWARE

INDUSTRIAL AIR TECHNOLOGY & ENGINEERING SOFTWARE

High-Efficiency Centrifugal Fans & Automated Selection Program

Complete AEBC fixed-speed product range, aerodynamic impeller design up to 92% efficiency, and custom automated fan selection at any speed.

COMPANY HERITAGE & SCALE

Over 50 Years of Industrial Air Engineering

Established in 1975 at Shiroli MIDC, Kolhapur, Airochem Engineering Company designs and manufactures heavy-duty industrial blowers, air pollution control systems, and process handling equipment worldwide.

- **Over 50 years of design and manufacturing excellence**
- **Global presence across UAE, Kenya, Vietnam, Philippines & Australia**
- **Turnkey solutions: Scrubbers, Bag Filters, Cyclones & Dry Fog Systems**



AERODYNAMIC PERFORMANCE BENCHMARK

Maximum Energy Conservation in Air Handling

92%

Peak Total Fan Efficiency Achieved

Streamlined flared inlet cones reduce intake air turbulence, converting kinetic fluid pressure with minimal acoustic signature and minimal lifecycle power draw.

STANDARD FIXED-SPEED RANGE

AEBC Series Standard Catalog Selection

ARRANGEMENT 4 • 1480 RPM

Direct Drive 4-Pole

80 catalog model sizes. Impeller directly overhung on motor shaft with compact footprint.

Flow up to 25,000+ m^3/hr

ARRANGEMENT 4 • 2900 RPM

Direct Drive 2-Pole

68 high-pressure blower models. Pressures up to 1600 mmWG for forced draught & conveying.

Pressures up to 1600 mmWG

ARRANGEMENT 8 • 1480 RPM

Flexible Coupling Base

78 industrial heavy-duty models. Two bearing pedestal base protecting the drive motor up to 315 kW.

Motor ratings up to 315 kW

CORE INNOVATION

From Fixed Catalog to Variable-Speed Optimization

Fixed Speed Catalog Tables

Standard direct motor speeds with pre-calculated static envelope dimensions.

- Fixed 1480 RPM & 2900 RPM speeds
- Requires temperature & altitude conversion factors
- Gives preliminary envelope dimensions to prospective buyers

Standard Selection Guideline

Computer Fan Selection Program

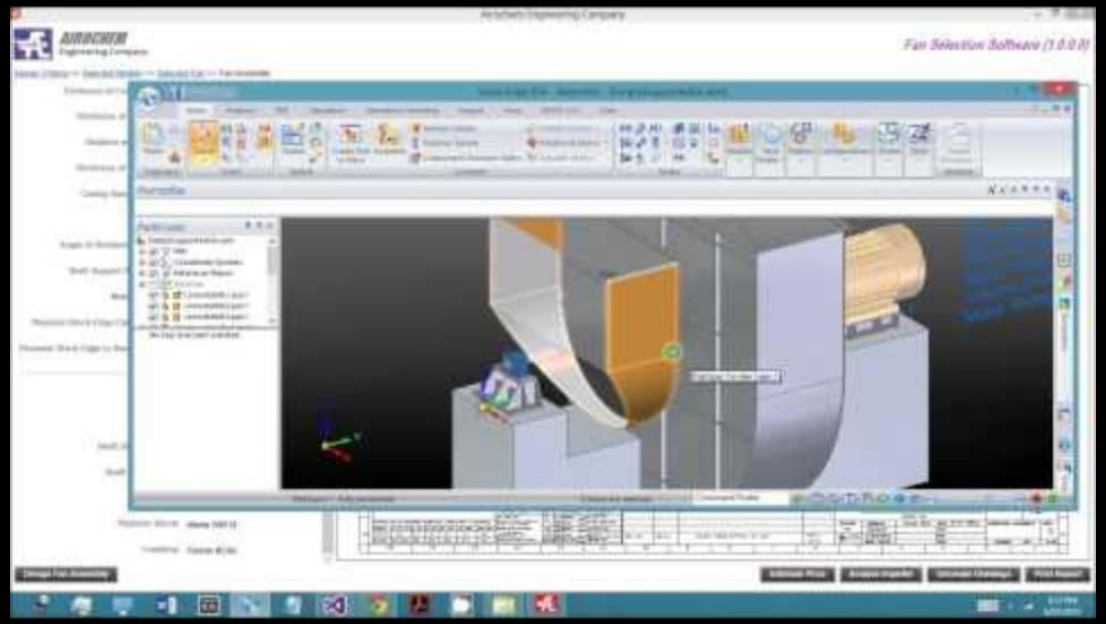
Proprietary algorithmic solver delivering maximum total efficiency at any operational speed.

- **Custom speed optimization for highest possible total efficiency**
- **Automatic mechanical design & material strength verification**
- **Direct drafting of GA drawing & automated Bill of Materials (BOM)**

End-to-End Client Technical Dossier Generation

LIVE SOFTWARE DEMO

Automated Selection & Engineering Program



YOUTUBE TECHNICAL DEMO

Computer Fan Selection Program in Action

Watch how our custom engineering software inputs operational requirements, computes precise aerodynamic curves, selects optimal impeller parameters, and outputs complete GA CAD drawings automatically.

Watch Full Video Demo

BETWEEN-BEARINGS ENGINEERING

Simply Supported Heavy-Duty Configurations

Dual Side Bearing Support

Impeller supported symmetrically between independent plummer blocks, eliminating shaft overhang stress.

Variable Inlet Vane (VIV) Control

Aerodynamic pre-rotation control vanes modulate flow while reducing power draw during boiler turndown.

Severe Duty Thermal & Ash Handling

Ideal for large Induced Draft (ID) systems handling abrasive flue particulates up to 250°C.



ENGINEERED SPECIFICATIONS

Metallurgy & Shaft Sealing Configurations

Metallurgical Selection

IS 2062 Structural Carbon Steel

Standard workhorse construction for clean industrial air and ventilation circuits.

Hardox & Chromium Carbide Overlays

Replaceable wear liners on blades and casing scrolls for heavy ash abrasion.

Stainless Steels (SS 304, 316, 316L)

Engineered for corrosive chemical vapors, wet scrubbers, and pharmaceutical air.

Rated for duty temperatures up to 250°C+

Shaft Sealing Systems

V-Ring & Rubber Flinger Seals

Economical dust-barrier sealing for standard ambient air ventilating fans.

Split Gland Stuffing Box

PTFE or graphite impregnated braided packing with purge connection ports.

Mechanical Labyrinth Seals

Zero-friction metallic labyrinth rings for toxic gases and zero gas fugitive leakage.

Complete containment under positive or negative draft

CATALOG MATCHED ACCESSORIES

Pre-Engineered Standard Fan Accessories

Butterfly Dampers

Diameters 150 mm to 1500 mm. Built in 3 mm, 4 mm & 5 mm plate with precision manual quadrant lever or actuator.

Flanged to match fan PCD

Flexible Connections

Isolates duct vibration. Canvas (<60°C), Rubberised Canvas (<110°C), EPDM (<130°C), and Ceramic Fiber (<500°C).

Matched inlet & outlet collars

Vibration Isolators

Engineered spring and elastomeric dampers. Available for direct base mounting or with common heavy isolator base frames.

ISMC channel frame heights 100-150 mm

RIGOROUS TESTING & COMMISSIONING

Precision Quality Assurance & Drive Assembly



ISO 1940 Dynamic Balancing

All impellers precision balanced on computerized dynamic balancing rigs to Grade G-2.5 standard.

Field Dynamic Balancing & Alignment

On-site laser shaft alignment, vibration FFT spectrum analysis, and in-situ dynamic trim balancing.

Aerodynamic Retrofitting & Upgrades

Upgrading existing inefficient plant blowers with high-efficiency AEBC impellers for immediate power savings.

INDUSTRIAL INSTALLATIONS

Proven Performance Across Heavy Sectors

Thermal & Power

High static pressure ID, FD & SA fans for utility and captive power boilers.

Sugar & Distilleries

Bagasse combustion boilers, mill ventilation, and rotary sugar dryer blowers.

Foundries & Steel

Cupola blast air systems, induction furnace fume extraction, and dust suppression.

Cement & Minerals

Severe abrasion resistant blowers for raw mill circuits, cyclones, and baghouses.

AIROCHEM ENGINEERING COMPANY

Engineering High-Efficiency Industrial Air Solutions Since 1975

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