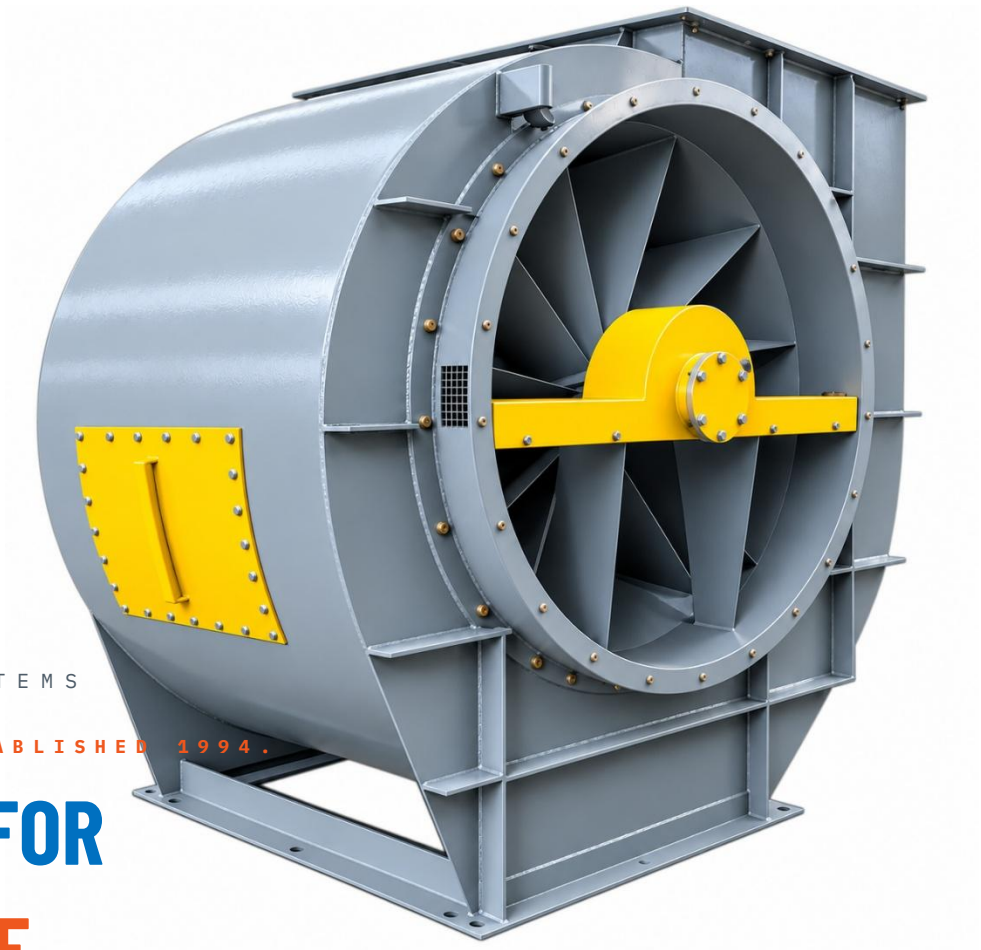
INDAIR

INDUSTRIAL AIR SYSTEMS

CHENNAI · INDIA · ESTABLISHED 1994.

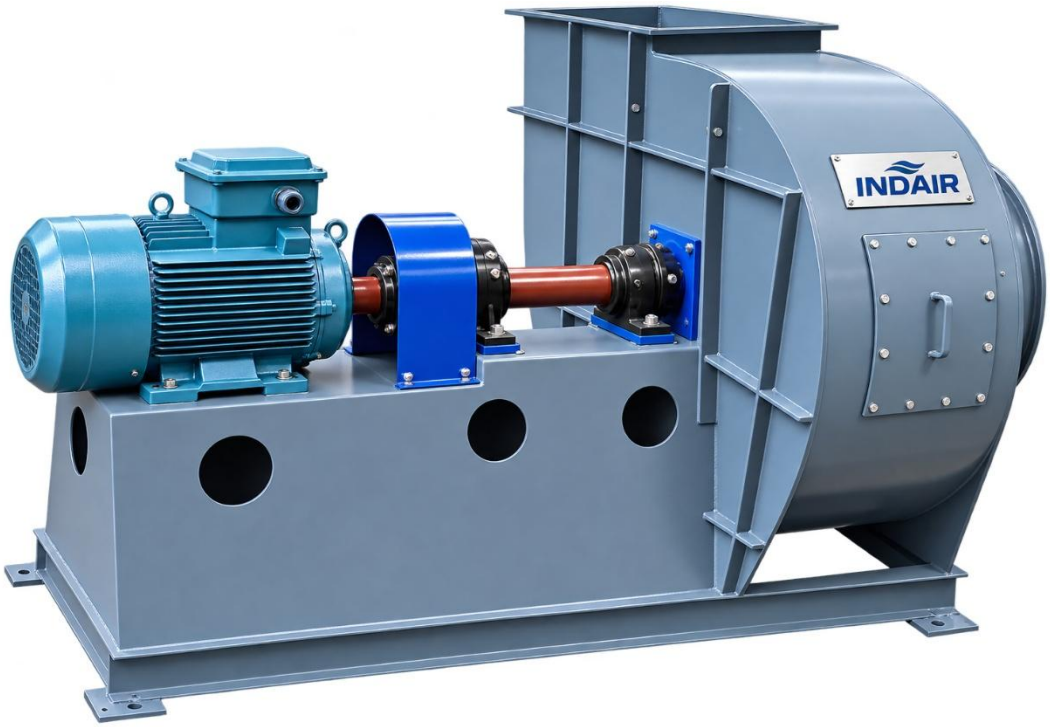


ENGINEERED FOR PERFORMANCE. BUILT FOR RELIABILITY.

Industrial fans, blowers, wet scrubbers, bag filters and air-pollution-control equipment — independently designed and built in Chennai for direct and OEM supply across India and selected international markets.







INDEPENDENT SINCE	YEARS OF ENGINEERING	PRODUCT LINES	STANDARD DIRECT-DRIVE RANGE
1994	30+	18	150 HP

THE COMPANY

BUILT IN CHENNAI. PROVEN ON SITE.

INDAIR, established in 1994, is an independent designer and manufacturer of industrial fans, blowers and air-pollution-control equipment, serving a diverse range of industries across India and selected international markets.

ESTABLISHED	1994 · Chennai, Tamil Nadu, India
BUSINESS	Design and manufacture of centrifugal fans, axial-flow fans, dust collectors, wet scrubbers, bag filters, air washers, mini dust collectors and acoustic silencers.
SUPPLY BASIS	Direct supply and OEM solutions, tailored to the application and process requirement
LEADERSHIP	Mr. T. T. Ravindran, Chief Executive Officer
MARKETS	Across India & select international markets
GST	33AANPR4881R1ZO

QUALITY CONTROLLED AT EVERY STAGE

Design · Material selection · Fabrication · Machining · Assembly · Dynamic balancing · Final testing

Three decades of engineering and manufacturing experience, with a large number of fans and blowers operating across India and selected international markets. Practical industry experience, robust engineering and customer-focused solutions help us deliver reliable equipment for demanding industrial environments.

INDAIR — ENGINEERED FOR PERFORMANCE. BUILT FOR RELIABILITY.



AXIAL DUCT FAN



AXIAL DUCT FAN – BIFURCATED TYPE

WHAT WE DO

INDUSTRIES WE SERVE

- Iron and steel industries
- Thermal power plants
- Metallurgical industries
- Cement plants
- Automotive industries
- Flour mills
- Textile mills
- Paint industries
- Pharmaceuticals
- Saw mills
- Refineries
- Laboratories
- Material handling industries
- Leather industries

SYSTEMS WE DO

- Dust collection
- General exhaust and ventilation
- Humidification
- Pneumatic conveying
- Kitchen ventilation
- Design and consultation

EQUIPMENT WE MANUFACTURE

- Industrial fans — centrifugal & axial flow
- Bag filters — dust collectors
- Wet scrubbers
- Heavy duty pedestal fans
- Single flap and multi vane dampers
- Oven fans
- Rotary air valves
- Heavy duty industrial special machines

FOUR FAMILIES · ONE AIR SYSTEM

01 — MOVE

AIR MOVEMENT

Centrifugal and axial blowers, pressure blowers, furnace and boiler fans, roof and wall exhaust, kitchen fume exhaust.

02 — CLEAN

AIR CLEANING

Reverse pulse jet bag filters, cyclone separators, wet scrubbers, portable and direct-mounted dust collectors.

03 — CONTROL

AIR CONTROL

Single flap and multi vane dampers, rotary air valves, acoustic silencers and enclosures, GI ducting and hoods.

04 — SUSTAIN

AIR SERVICE

Dynamic balancing to ISO G6.3, installation and commissioning, annual maintenance and spares, any make.



CENTRIFUGAL BLOWER IMPELLER WITH TIE ROD ARRANGEMENT.



CENTRIFUGAL BLOWER IMPELLER
FORWARD CURVE [FC] TYPE



CENTRIFUGAL BLOWER IMPELLER
BACKWARD CURVE [BC] TYPE

PRODUCT INDEX · 01–18.

PRODUCT RANGE

Eighteen product lines, each engineered to the duty. Sizes, materials, impeller profiles and drive arrangements are selected according to the application, operating conditions and process requirement — supplied direct or as an OEM build.

NO.	PRODUCT LINE	DESCRIPTION
01	Centrifugal blower	90 Deg flow line with six basic impeller profiles selected by duty.
02	Axial flow blower	High volume at low/medium pressure for ventilation, humidification and process air.
03	Furnace & boiler blower	Combustion air to burners and furnaces; to 1800 mmwg total pressure and higher with specialized stage designs.
04	Roof & wall fans	Shed ventilation by exhaust and fresh-air supply units in weatherproof housings.
05	Kitchen exhaust fans	Dedicated forward pickup curve and backward throw type – limit load impellers - Grease &d heat-tolerant designs for hotel and institutional kitchens.
06	Bag filter collector	Online reverse pulse jet fabric/cartridges filters for light/medium dust particles.
07	Cyclone separator	Inertial separation of medium and heavy dust particles; standalone or in line with other dust/fume collectors.
08	Wet scrubber	Treats gaseous/fume particles and acid mists that dry media cannot hold.
09	Mini portable collector	Wheel-mounted extraction units for welding, grinding and woodworking stations.
10	Industrial ovens	Controlled-temperature heating chambers with heating elements and forced-air circulation, designed for uniform drying, curing, baking and heat treatment of industrial materials and components.
11	Rotary air valve	Close-tolerance valves discharging material under an airtight pressure seal.
12	Air volume control dampers	For air regulation with single flap and multi vane, with manual, electric or pneumatic actuation.
13	Acoustic silencers	Round, rectangular or fully enclosed acoustic silencers with sound-absorbing insulation, designed for effective noise attenuation to meet specified sound-level requirements.
14	Industrial impellers	Custom-designed and dynamically balanced industrial impellers for OEM and replacement applications, manufactured in MS, SS, aluminium, special alloy steels and other non-ferrous materials to suit specific airflow, pressure, temperature and process conditions.
15	Kitchen hoods and ducts	Custom-designed kitchen exhaust hoods and ducting systems for effective capture, conveyance and discharge of heat, smoke, grease-laden vapours and cooking fumes, engineered to suit the required airflow, hood dimensions and site layout.
16	Special machines	Asphalt pans, mini-crushers, mortar mixers, screw conveyors, chop saws, rotating pickup hoods, swivelling joints Etc.
17	Air washers	Industrial air washers cool, humidify and clean incoming air by passing it through a fine water spray, where airborne dust is captured by water droplets and collected in the recirculating water system.
18	Dust collector Spares	Filter bags, cages, pleated cartridges, solenoid valves, timers, Spray nozzles in SS, Brass, PP and pumps etc.



IMPELLER SELECTION · SIX BASIC PROFILES

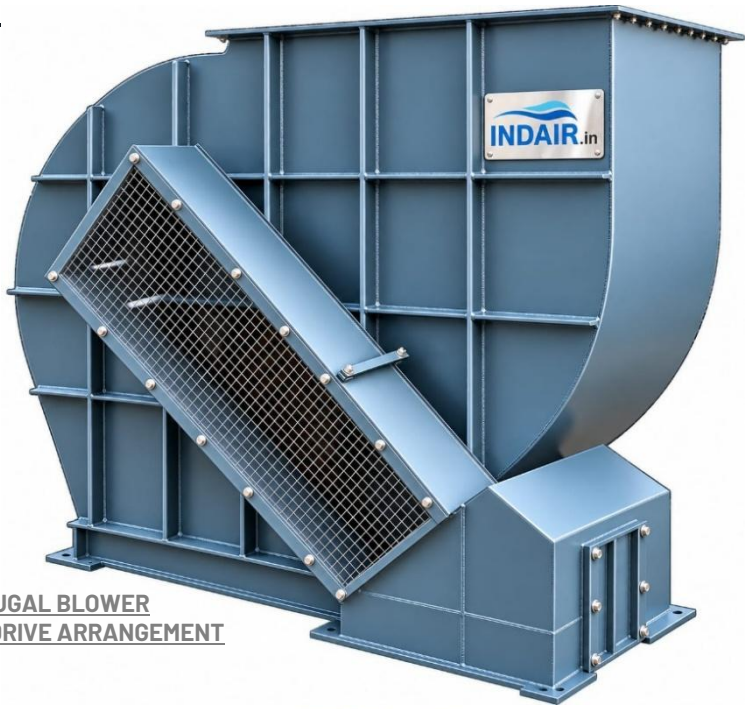
PROFILE	WHERE IT IS USED
Radial type	Dust-laden and fibrous air. Self-cleaning paddle blades, tolerant of abrasion or buildups.
Backward curved [BC]	Clean air at high efficiency with a non-overloading power curve.
BC with radial tip	Self-cleaning blades for light dust laden air.
Forward curved [FC]	High volume from a small frame at low speed. Quiet and compact.
Aerofoil	Peak efficiency where energy cost dominates the life cycle.
Backward inclined	Straight blades inclined backward for good efficiency and relatively simple fabrication used in industrial exhaust and process ventilation.
ADVANCED PROFILES	
FC and BC combined	For air ventilation and light fume exhaust – LIMIT LOAD TYPE.
AXIAL FLOW FAN	
Cast aluminium	Axial impellers — machined and dynamically balanced; non-sparking service.

MATERIAL OF CONSTRUCTION

- Mild carbon steel; HARDOX
- SS 304; SS 316; SS 310; DUPLEX STEEL; INCONEL.
- Galvanised iron
- Poly propylene or PP
- Fiber reinforced Plastic or FRP
- ALUMINUM – 1100 and other types
- Cast aluminium alloy

PROTECTION & LINING

- Epoxy coating
- Rubber lining
- Wear-resistant liners
- Non-sparking build
- FRP lining



CENTRIFUGAL BLOWER
IN BELT DRIVE ARRANGEMENT



AXIAL FLOW FAN



AERO FOIL – ALUMINUM IMPELLER

STANDARD CAPACITIES · DIRECT DRIVE

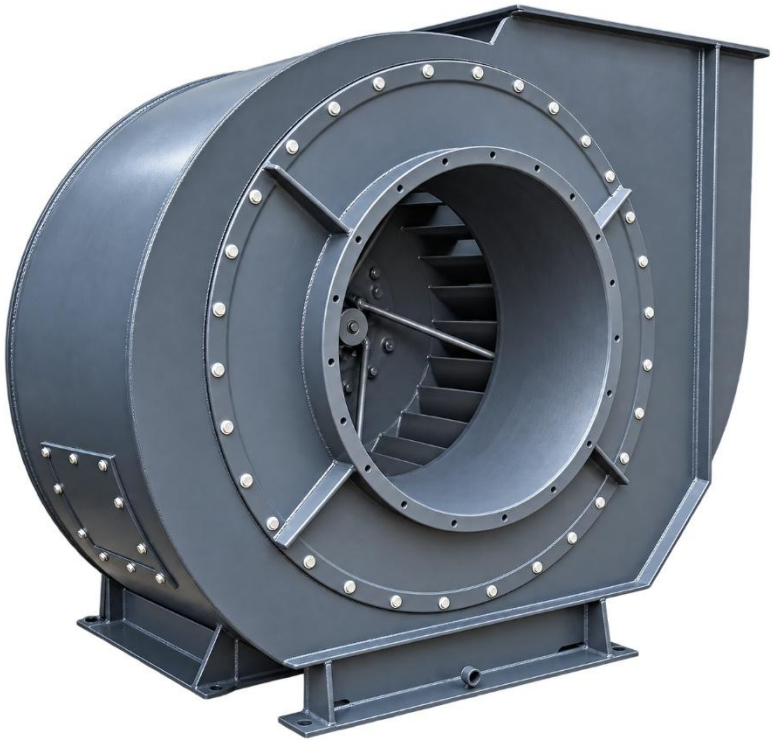
CENTRIFUGAL FANS

A centrifugal fan draws air approximately parallel to the shaft axis and discharges it radially [90 Deg] through the casing in the required direction. It is used where air must be moved against resistance created by ducts, bends, filters, hoods, cyclones or process equipment. Discharge orientation is selected to suit the site requirement.

IMPELLER PROFILES	STANDARD MOTOR RANGE	AIRFLOW UPTO	TOTAL PRESSURE UPTO
06 types	0.25–750 HP	1,40,000 m³/hr	1500 mmwg

DUST COLLECTION · PNEUMATIC CONVEYING · BOILER FANS

BASIC DIRECT DRIVE FAN DESIGNS – EASY REFERENCE.



CENTRIFUGAL BLOWER WITH FRP LINING

MOTOR HP	FAN SPEED RPM	AIRFLOW M³/HR	TOTAL PRESSURE MIN. MMWG
5.0	1440	5,000	180
5.0	2880	3,000	300
7.5	1440	6,000	300
7.5	2880	3,000	500
10.0	1440	7,200	300
10.0	2880	3,200	520
15.0	1440	9,000	350
20.0	1440	12,000	350
30.0	1440	20,000	350
40.0	1440	25,000	275
50.0	1440	33,000	275
60.0	1440	40,000	275
75.0	2880	12,000	1200

- THE LISTED FANS FEW OF OUR BASIC DESIGNS AND GOOD FOR DIRECT MOTOR SHAFT DRIVE. FOR OTHER SPECIFICATIONS, THE FINAL FAN SIZE AND MOTOR RATING ARE CONFIRMED AGAINST THE REQUIRED AIRFLOW AND SYSTEM PRESSURE FOR THE RESPECTIVE SYSTEM.
- THE IMPELLER DESIGN IS SELECTED FROM THE AVAILABLE PROFILES TO SUIT THE DUTY — INCLUDING DUST EXTRACTION INTO BAG FILTERS, FRESH-AIR SUPPLY, STALE-AIR EXHAUST, PNEUMATIC CONVEYING, BOILER AND FURNACE AIR SUPPLY, MATERIAL HANDLING, HVAC AND KITCHEN-FUME EXHAUST.

HVAC & KITCHEN FUME EXHAUST FANS [RULE: Q∝N]

DIRECT DRIVE- LIMIT LOAD FANS.

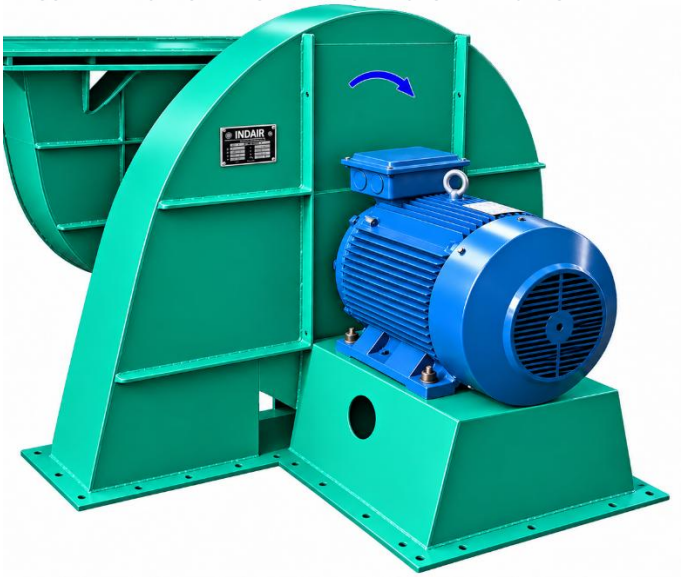
MOTOR HP	FAN SPEED RPM	AIRFLOW M³/HR	STATIC PRESSURE MMWG
1.0	1440	3,900	25
2.0	1440	5,950	50
3.0	1440	8,500	65
5.0	1440	11,900	65
7.5	1440	15,300	75
10.0	1440	20,400	75

SPECIAL DESIGNS

LOW-SPEED · LOW-NOISE FAN SERIES — INDAIR OFFERS SPECIALLY ENGINEERED 960 RPM AND 780 RPM CENTRIFUGAL FANS FOR APPLICATIONS DEMANDING QUIETER OPERATION. BY EMPLOYING A LARGER IMPELLER AND CASING, THESE FANS DELIVER THE REQUIRED AIRFLOW AND STATIC PRESSURE AT SUBSTANTIALLY LOWER ROTATIONAL SPEEDS, WITH DESIGNS CAPABLE OF PROVIDING APPROXIMATELY 10–20% ADDITIONAL AIRFLOW DEPENDING ON THE DUTY. THE RESULT IS DEPENDABLE AIR PERFORMANCE WITH SIGNIFICANTLY REDUCED OPERATING NOISE — AN IDEAL SOLUTION WHERE BOTH AIRFLOW PERFORMANCE AND ACOUSTIC COMFORT ARE IMPORTANT.

FURNACE BLOWERS [RULE: $P \propto N^2$]

AIR SUPPLY TO BURNERS AND FURNACES · HIGH SPEED AND HIGH PRESSURE



CENTRIFUGAL BLOWER IN DIRECT DRIVE ARRANGEMENT

BASIC FAN SELECTION CHART.

MOTOR HP	FAN SPEED RPM	AIRFLOW M^3/HR	TOTAL PRESSURE MMWG
1.0	2880	600	200
2.0	2880	900	300
3.0	2880	1,200	350
5.0	2880	1,800	550
7.5	2880	2,400	650
10.0	2880	2,400	800
15.0	2880	3,600	800

BELT DRIVEN CENTRIFUGAL BLOWERS – HIGHLY FLEXIBLE

SPECIFIED WHEN THE REQUIRED SPEED, TEMPERATURE OR SHAFT LOAD MAKES DIRECT MOTOR DRIVE UNSUITABLE

WHEN BELT DRIVE IS PREFERRED

– SPEED MATCHING

WHEN THE REQUIRED FAN OPERATING SPEED DIFFERS FROM STANDARD MOTOR SPEEDS SUCH AS 1440, 960 OR 780 RPM, A BELT-DRIVE ARRANGEMENT PROVIDES THE FLEXIBILITY TO OBTAIN THE REQUIRED FAN RPM. MOTOR AND FAN PULLEY DIAMETERS ARE SELECTED IN THE APPROPRIATE RATIO TO ACHIEVE THE DESIGNED SPEED AND CORRESPONDING AIRFLOW AND PRESSURE.

– HIGH-TEMPERATURE APPLICATIONS

WHEN HANDLING HOT AIR, FUMES OR PROCESS GASES, DIRECT EXPOSURE TO ELEVATED TEMPERATURE CAN ADVERSELY AFFECT THE MOTOR AND BEARINGS. A BELT-DRIVEN ARRANGEMENT ALLOWS THE MOTOR TO BE POSITIONED AWAY FROM THE HOT GAS STREAM. WHERE REQUIRED, AN EXTENDED SHAFT WITH COOLING DISC / HEAT SLINGER CAN BE INCORPORATED TO REDUCE HEAT TRANSFER TOWARDS THE BEARINGS AND DRIVE COMPONENTS.

– LARGE OR HEAVY IMPELLERS

FOR FANS WITH LARGE-DIAMETER OR HEAVY IMPELLERS, IT MAY BE PREFERABLE TO SUPPORT THE ROTATING ASSEMBLY INDEPENDENTLY RATHER THAN IMPOSE THE ENTIRE RADIAL LOAD DIRECTLY ON THE MOTOR SHAFT AND BEARINGS. A SEPARATE SHAFT-AND-BEARING ARRANGEMENT PROVIDES BETTER MECHANICAL SUPPORT, ALIGNMENT AND SERVICEABILITY FOR HEAVY-DUTY APPLICATIONS.

– BELT-DRIVE CONSTRUCTION

A TYPICAL **INDAIR** BELT-DRIVE FAN ARRANGEMENT CONSISTS OF A PRECISION-MACHINED STEEL SHAFT, SUITABLY SELECTED BEARINGS WITH PLUMMER BLOCKS, MOTOR AND FAN PULLEYS, MATCHED V-BELTS AND A RIGID BEARING PEDESTAL OR COMMON BASE FRAME. COMPONENTS ARE SELECTED ACCORDING TO FAN SPEED, TRANSMITTED POWER, SHAFT LOADING AND OPERATING CONDITIONS TO PROVIDE SMOOTH, RELIABLE AND MAINTAINABLE OPERATION.



CENTRIFUGAL BLOWER IN BELT DRIVE ARRANGEMENT

AXIAL FLOW FANS

DIRECT DRIVE · CAST ALUMINIUM ALLOY IMPELLERS

An axial-flow fan moves air predominantly in a direction parallel to the rotating shaft. The impeller blades impart aerodynamic energy to the air, producing the pressure differential required to overcome system resistance while delivering high volumetric airflow. Owing to their high flow capacity at relatively low-to-moderate static pressures, axial fans are widely used for industrial ventilation, fresh-air supply, process cooling, air-washing, humidification and general exhaust applications.

AD FANS - BASIC SELECTION CHART.

MOTOR HP	FAN SIZE	FAN SPEED RPM	AIRFLOW M³/HR	PRESS. MAX. MMWG
0.5	Ø 300 -6 B	2880	1,900	15
1.0	Ø 400 -6 B	2880	5,100	25
0.5	Ø 500 -6 B	1440	5,100	10
1.0	Ø 400 -11 B	1440	5,100	15
1.0	Ø 450 -11 B	1440	6,000	20
1.0	Ø 500 -7 B	1440	8,000	15
1.0	Ø 600 -6 B	1440	10,200	10
2.0	Ø 600 -7 B	1440	14,000	17
2.0	Ø 630 -7 B	1440	15,000	20
2.0	Ø 700 -6 B	1440	16,200	17
3.0	Ø 700 -7 B	1440	20,000	20
5.0	Ø 800 -6 B	1440	22,000	20
7.5	Ø 900 -6 B	1440	30,000	35
10.0	Ø 1000 -6 B	1440	40,000	40
10.0	Ø 1200 -6 B	960	50,000	30
15.0	Ø 1200 -6 B*	1440	50,000	55
20.0	Ø 1200 -6 B*	1440	70,000	65



AXAIL FLOW - DIRECT DRIVE AGMT



AXAIL FLOW – BELT DRIVE TYPE

NOTE:-

- * Variable / adjustable-pitch six-blade impellers available where required.
- Impellers are sand/die cast, machined and dynamically balanced for smooth operation.
- Standard axial fans are direct motor driven, assembled and works-tested before dispatch.
- Fan diameter, blade pitch, speed and motor rating are selected to suit the required airflow and pressure.
- Belt-driven axial fans are available for special speed, temperature or shaft-loading requirements.
- Custom impeller designs can be developed to suit specific applications and site conditions.
- Impellers are available in aluminium alloy, FRP, SS and MS.
- Casings are available in MS, SS and suitably lined construction for special applications.

SILENCERS

ROUND OR RECTANGULAR · MINERAL WOOL PACKING

ACOUSTIC SILENCERS & SOUND ATTENUATION

Industrial acoustic silencers are designed to reduce airborne noise generated by fans, blowers and high-velocity airflow systems while maintaining the required system airflow. Silencers may be installed at the fan inlet, discharge, or both, depending on the source and direction of noise transmission.

Silencers are generally constructed with a rigid outer casing and internally arranged acoustic splitters or lining. The sound-absorbing sections are packed with suitable acoustic insulation, such as mineral wool, rock wool or glass wool, protected by perforated metal sheets or other suitable facing materials to prevent erosion of the insulation by the airflow.

The silencer length, cross-sectional area, splitter arrangement, acoustic insulation density and thickness are selected according to the required sound attenuation, airflow velocity and permissible system pressure drop.

Typical Design Features

- Rectangular, circular and custom-built configurations.
- Inlet, discharge or duct-mounted installation.
- Acoustic insulation selected for the required frequency range and attenuation.
- Perforated internal liners protect the acoustic packing while allowing sound energy to be absorbed.
- Low air velocity through the silencer helps minimise regenerated aerodynamic noise.
- MS, GI, aluminium or stainless-steel construction can be selected according to service conditions.
- Flanged construction for easy connection with fans and ducting.
- Weather-resistant construction can be provided for outdoor installations.
- High-temperature acoustic materials can be selected for hot-air applications.
- Fully or partially acoustic enclosures can also be designed for fans, blowers, motors and other noise-generating equipment.

Acoustic Insulation

Acoustic insulation works primarily by absorbing sound energy rather than simply blocking airflow noise. Sound waves enter through the perforated liner and interact with the fibrous insulation, where part of the acoustic energy is dissipated as very small amounts of heat.

The required insulation type, density and thickness depend particularly on the noise-frequency spectrum. Therefore, silencer selection should preferably be based on the required insertion loss in dB at different octave-band frequencies, rather than specifying only an overall dB reduction.



OUTLET SILENCER



INLET SILENCER

DUST COLLECTORS AND WET SCRUBBERS

DUST COLLECTION SYSTEMS: – CYCLONE SEPARATORS · BAG FILTERS · CARTRIDGE FILTERS · PORTABLE DUST COLLECTORS · CENTRALIZED DUST EXTRACTION SYSTEMS. ---WET SCRUBBING SYSTEMS: – VENTURI SCRUBBERS · SPRAY TOWERS · PACKED-BED SCRUBBERS · FUME SCRUBBERS · GAS CLEANING & ODOUR CONTROL SYSTEMS.

AIR POLLUTION CONTROL

Every air-pollution-control system is designed after studying the actual requirement. Selection varies with the volume of dust-laden air, dust or fume characteristics, the total system span, pickup points and the static pressure required to move air through the complete system.

CLASS 01

BAG FILTERS

Fabric type filters that collect light dust particles — supplied as online, reverse pulse jet units with automatic cleaning.

CLASS 02

CYCLONE SEPARATORS

Inertial separation for medium and heavy dust particles — used in line ahead of a bag filter, or standalone on coarse dust.

CLASS 03

WET SCRUBBERS

For treating gaseous particles and fumes that dry media cannot hold — sized as per the bag filter table with minor variation.

BAG FILTERS — ONLINE, REVERSE PULSE JET

STANDARD SIZES

MOTOR HP	COLLECTOR SIZE MM	COLLECTOR HEIGHT M	AIRFLOW M³/HR	ST. PRESS. MMWG
2.0	Ø 800	2.0	900	300
3.0	Ø 900	2.5	1,500	300
5.0	Ø 1000	2.5	3,000	300
7.5	Ø 1500	3.0	4,000	300
10.0	Ø 1500	3.25	5,000	300
15.0	1250 × 1500	4.0	9,000	300
20.0	1250 × 2000	5.0	12,000	300
30.0	2200 × 2200	4.0	20,000	350
40.0	2200 × 2500	4.5	30,000	350

- The above capacities are reference sizes for bag filters. Wet-scrubber sizing and construction may vary according to the contaminant, required treatment method, corrosion conditions and pressure drop.
- Mini portable dust collectors are also manufactured for point-of-source capture at welding, grinding, buffing and similar workstations.

CYCLONE SEPARATORS

STANDARD SIZES

MOTOR HP	COLLECTOR SIZE MM	COLLECTOR HEIGHT M	AIRFLOW M³/HR
5.0	Ø 700	4.0	3,000
7.5	Ø 900	4.5	5,000
10.0	Ø 900	5.0	7,000
15.0	Ø 1200	6.0	11,000

- Cyclone separators are commonly installed ahead of bag filters to remove coarse particles from dust-laden air before it reaches the filter media. In a combined system, the main extraction fan provides the airflow through the cyclone and filter.
- Where the dust is predominantly coarse and a bag filter is not required, the cyclone can be used with a dedicated fan selected for the required airflow and system resistance.



CYCLONE SEPERATOR - MULTI



ONLINE PULSE JET BAG FILTER



CYCLONE SEPERATOR WITH RAV



MODULAR TYPE – PULSE JET DC

COMMERCIAL KITCHEN VENTILATION

HOTELS · RESTAURANTS · FOOD COURTS · INSTITUTIONAL CATERING

GOOD KITCHEN VENTILATION IS NOT ABOUT EXHAUSTING MORE AIR — IT IS ABOUT EXHAUSTING THE RIGHT AMOUNT OF AIR, FROM THE RIGHT LOCATION, WITH THE RIGHT FAN.



EXHAUST AND FRESH AIR SUPPLY



EXHAUST HOODS WITH FILTERS

A properly designed kitchen ventilation system should do more than simply remove smoke. It must capture heat, grease, steam and cooking fumes effectively without unnecessarily extracting the useful heat required for cooking. Correct hood design, airflow distribution and fan selection therefore have a direct effect on kitchen comfort, cooking efficiency, gas consumption and electrical power consumption.

— Exhaust Blowers — The exhaust fan is selected according to the hood size, required capture velocity and total resistance of the duct system. An undersized fan will not remove heat and fumes effectively, while an oversized fan can unnecessarily extract conditioned air and useful cooking heat, increase noise and consume more electrical power.

— Fresh-Air / Make-Up Air Fans — The air exhausted from the kitchen must be replaced in a controlled manner. Properly designed make-up air helps maintain a comfortable working environment and prevents excessive negative pressure, while allowing the exhaust hood to capture fumes effectively without drawing unnecessary quantities of air from the cooking area.

— Canopy Hoods, Ducting & Cowls — Hood dimensions and positioning are extremely important. A correctly designed canopy should capture the rising thermal plume, smoke, steam and grease vapours directly above the cooking equipment before they spread into the kitchen. Proper capture can reduce the amount of exhaust air required, thereby helping to retain useful cooking heat and avoid unnecessary gas consumption.

— Correct Fan Selection Saves Energy — Bigger is not always better. The fan should be selected for the actual airflow and static pressure required by the complete system. An unnecessarily oversized fan may consume additional electrical power throughout its operating life. Since commercial kitchen exhaust systems often operate for many hours every day, even a modest reduction in absorbed power can produce substantial annual electricity savings.

— Life-Cycle Cost Matters — Fan selection should therefore be based not only on the initial equipment price, but also on motor power, efficiency and annual operating hours. In continuously operated kitchens, the accumulated electricity cost of an inefficient or oversized fan can exceed the difference in initial equipment cost. A properly engineered system can therefore provide an attractive payback through reduced electricity and fuel consumption.

— Integrated System Design — INDAIR considers the hood, exhaust airflow, make-up air, duct size and routing, pressure losses, fan efficiency and final discharge point as one complete ventilation system. The objective is simple: capture the fumes where they are generated, maintain comfortable kitchen ventilation, minimise unnecessary heat loss and achieve the required performance with the lowest practical energy consumption.

DYNAMIC BALANCING

DYNAMIC BALANCING – FAN IMPELLERS · BLOWER ROTORS · INDUSTRIAL ROTORS · OTHER ROTATING COMPONENTS.

DYNAMIC BALANCING IS NOT SIMPLY ADDING OR REMOVING WEIGHT — IT IS THE PRECISE CORRECTION OF MASS UNBALANCE IN THE REQUIRED PLANES TO MINIMIZE CENTRIFUGAL FORCES, VIBRATION AND BEARING LOADS AT OPERATING SPEED.



DYNAMIC BALANCING – MC #1



DYNAMIC BALANCING – MC #2

WHY balancing ?

Dynamic balancing corrects mass unbalance in rotating components, minimizing centrifugal forces, vibration and mechanical stress at the operating speed.

At INDAIR, fan impellers and rotating assemblies are precision balanced using single-plane or two-plane correction, depending on rotor geometry, mass, speed and application.

Benefits:

LOWER VIBRATION · REDUCED BEARING LOAD · LOWER NOISE · LONGER BEARING & SHAFT LIFE · REDUCED FATIGUE · SMOOTHER OPERATION

BALANCING STANDARD

- Dynamic Balancing — ISO 21940-11 / G6.3
- Fan impellers and rotating assemblies are dynamically balanced to the specified Balance Quality Grade, typically G 6.3 for general industrial fan applications, or to a finer grade where the application demands.
- G 6.3 represents a balance-quality parameter of 6.3 mm/s, with the permissible residual unbalance determined from the rotor mass and maximum service speed.
- Standards Reference:
  - ISO 21940-11:2016 — Rotor balancing; procedures and tolerances for rigid rotors
  - ISO 1940-1 — Former/legacy rotor balancing standard, now superseded by ISO 21940-11
  - ANSI/AMCA 204-20 — Balance quality and vibration levels for fans

DYNAMIC BALANCING: G6.3 QUALITY GRADE AS PER ISO 21940-11 (FORMERLY ISO 1940-1); SPECIAL BALANCE GRADES AVAILABLE TO SUIT APPLICATION.

SPECIAL MACHINES

SPECIAL-PURPOSE MACHINES – MORTAR MIXERS · ROTARY AIRLOCKS · SCREW CONVEYORS · MINI CRUSHERS · ROTATING SPINDLES · CUSTOM-BUILT PROCESS EQUIPMENT.

DESIGNED AND MANUFACTURED TO THE APPLICATION

We undertake the design, engineering and manufacture of special-purpose machines for specific industrial and process applications, including asphalt pans, rotary airlocks, mini crushers, rotating spindles, mortar mixers, chop saws and screw conveyors.

Each machine is engineered considering capacity, operating speed, torque, mechanical loading, duty cycle and site conditions. Drive arrangements may incorporate motors, gearboxes, belt/chain drives, couplings, shafts and independent bearing systems.

Materials of construction, structural members, shaft sizes and wear components are selected according to the process, operating loads, temperature and material characteristics. Suitable guards, inspection covers, discharge arrangements and mounting provisions can be incorporated to provide a reliable, safe and application-specific engineered solution.



PNEUMATIC DAMPER



PLUG TYPE OVEN FAN



SWIVELLING JOINT



FULLY AUTOMATIC MIXER MACHINE

AIR WASHERS

AN AIR WASHER DOES MORE THAN MOVE AIR — IT COOLS, HUMIDIFIES AND CONDITIONS FRESH AIR TO CREATE A BETTER INDUSTRIAL WORKING AND PROCESS ENVIRONMENT.

Industrial air washers are engineered to cool, humidify and partially clean large volumes of fresh air by passing it through a controlled water-spray chamber.

– Cooling & Humidification – Evaporative cooling reduces air temperature while simultaneously increasing humidity to suit process and comfort requirements.

– Dust Reduction – Water sprays capture a portion of airborne dust and suspended particles, helping deliver cleaner conditioned air to the working area.

– Mist Elimination – Efficient mist eliminators minimise water carry-over before the conditioned air enters the supply duct.

– Water Recirculation – Pumps, spray nozzles and collection sumps provide continuous water circulation with suitable make-up and bleed-off arrangements.

– Engineered Airflow – Fan capacity, air velocity, spray arrangement and system resistance are selected together for effective cooling with optimum power consumption.

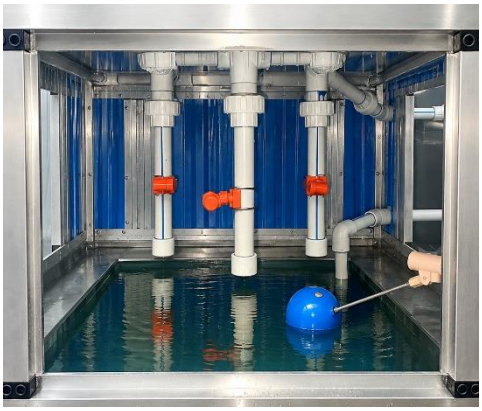
– Applications – Suitable for textile plants, production shops, warehouses, assembly areas and industrial spaces requiring high-volume fresh-air ventilation, cooling and humidity control.



AIR WASHER UNIT WITH FAN AT TOP



AHU TYPE UNITS WITH SILENCERS



INTERNAL ARRANEGEMENTS

AFTER THE SALE

SERVICE & CONTACT

SERVICE 01

DYNAMIC BALANCING

Unbalance is the leading cause of premature bearing failure. Impellers and shafts are machined and dynamically balanced to ISO balance quality grade 6.3 on computerised machines, in shop or in the field, with a full vibration report.

SERVICE 02

INSTALLATION & COMMISSIONING

Structural mounting, drive alignment, leak-proof duct integration, electrical and rotation checks, load testing, and on-site validation of air volume and static pressure with calibrated instruments.

SERVICE 03

AMC & SPARES

Annual maintenance contracts covering scheduled preventive maintenance, performance checks and priority breakdown support — for INDAIR equipment and for fans, blowers and pollution control systems of any other make.

WHY INDAIR

01

INDEPENDENT SINCE 1994

Over three decades of engineering and manufacturing experience in industrial air systems, under one continuous ownership.

02

ENGINEERED TO THE DUTY

Volume, pressure, temperature, dust loading and the space you actually have — all settled before a plate is cut.

03

DIRECT AND OEM SUPPLY

Products supplied on a direct basis and as OEM solutions, tailored to the application and process requirement.

04

QUALITY AT EVERY STAGE

Stringent procedures from design and material selection through fabrication, machining, assembly, balancing and final testing.

05

NAMED COMPONENT BRANDS

ABB, Siemens, CG or LHP motors. SKF, NTN-Japan or ZKL bearings. FENNER belts and pulleys. EN 8 machined shafts.

06

A PROVEN POPULATION

A large number of fans and blowers running across India and in select international markets, in demanding conditions.

SELECTION GUIDE

YOUR REQUIREMENT	WHAT IT MEANS	WE RECOMMEND
High volume, little resistance	Shed ventilation, humidification, air washing, general exhaust — large flow at low pressure.	Axial flow fan
Volume against ductwork	Hoods, long duct runs, filters and stacks — medium to high pressure through a radial discharge.	Centrifugal fan
Combustion air	Air supply to burners and furnaces, and boiler draft duties to 1500 mm wg.	Furnace blower
Light dust, emission limits	Fabric filtration with automatic pulse-jet cleaning, sized on air volume and system span.	Bag filter
Medium or heavy dust	Pre-separation ahead of a bag filter, or standalone collection where dust is coarse only.	Cyclone separator
Gaseous particles or fume	Pollutant that has to be captured in liquid rather than held on dry media.	Wet scrubber
Noise limit at the boundary	Fan noise breaching factory dB limits or carrying to neighbouring property.	Acoustic silencer



CETRIFUGAL FAN
DOUBLE SIDE DRIVE



AIR CIRCULATOR

TALK TO AN ENGINEER

SEND US THE DUTY.

WE WILL SELECT THE EQUIPMENT TO MATCH THE OPERATING REQUIREMENT.

WORKS & OFFICE	NO. 14, 4TH STREET EXTENSION, VENKATESWARA COLONY, MADHAVARAM MILK COLONY POST, KODUNGAIYUR, CHENNAI – 600118, TAMIL NADU, INDIA
TELEPHONE	+91 86101 84277; +91 94440 51272; +91 9003067353.
EMAIL	indairblower@hotmail.com
WEBSITE	www.indair.in
GST	33AANPR4881R1ZO

WHAT TO SEND US

- **Airflow — in m³/hr [CMH] or ft³/min [CFM]; if unknown, provide the hood/opening size and required capture velocity and we can estimate it.**
- **Static pressure — in mmWG, or provide a sketch of the duct route, size of duct at points, bends, filters and stack height so the system resistance can be assessed.**
- **Gas temperature — at the fan inlet, including whether the condition is continuous, intermittent or subject to peaks.**
- **What the air carries — dust type and loading, moisture, fumes, vapours, grease or other contaminants affecting fan and material selection.**
- **Site constraints — available space, power supply and frequency, noise requirement, mounting arrangement and any emission or process standard to be met.**

➢ ***Otherwise simply call us; we are happy for the conversation*** 😊

ENGINEERED AROUND YOUR APPLICATION

Every air-handling requirement is different. INDAIR selects and engineers equipment based on the actual operating conditions — not merely by motor HP or equipment size.

AIRFLOW · STATIC PRESSURE · TEMPERATURE · DUST LOAD · MATERIAL OF CONSTRUCTION · NOISE · SPACE CONSTRAINTS · CONTINUOUS DUTY

From industrial fans and blowers to dust collection and air-pollution-control systems, our focus is on delivering the required performance with reliable operation, practical maintenance and optimum energy usage.

DESIGN · FABRICATION · ASSEMBLY · DYNAMIC BALANCING · TESTING

ENGINEERED FOR AIR. BUILT FOR INDUSTRY.



CALL AN ENGINEER +91 86101 84277

INDAIRBLOWER@HOTMAIL.COM · WWW.INDAIR.IN · DESIGNER AND MANUFACTURER OF INDUSTRIAL FANS, BLOWERS AND AIR POLLUTION CONTROL EQUIPMENT · DIRECT AND OEM SUPPLY · EDITION JUNE 2026·

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