

CENTRIFUGAL **BLOWER** & FANS



ONE COMPANY MULTIPLE SOLUTION

Company Profile

Kalsi Industries is one of the leading manufacturer of Blowers, Fans and Air pollution control equipments.

Kalsi Industries is an independent designer and manufacturer of Industrial Blowers, Fans and Air pollution control equipments. Our thousands of fans in operation in India and other countries. We have good response as well as satisfying results.

Kalsi Industries was established in the year 1974 by a group of experienced technocrat on a small scale under the able guidance of Mr. Charan Singh Kalsi & Mr. Mangal Singh Kalsi. Since then our endeavour is to strive continually to offer product innovation and quality. We offer cost effective products which are not only efficient but also required minimum maintenance.

We maintain strict quality procedure in design, manufacturing and testing. The centrifugal fan is the heart of any system. If the fan does not deliver required pressure and volume, the system will not work efficiently and operating cost of the plant will increase. We design and manufacture fans for wide range of pressure, volume and power to suit customer requirement. Many blowers of several capacities are available in various specifications. However, We specializes in offering tailor made designs as well to suit customer specifications.

OUR BUSINESS PHILOSOPHY "To completely satisfy the customer's demands with quality, time bound commitments and best prices in industry, using our expertise in the field of engineering with proven standards."

QUALITY AN INTEGRAL PART "Quality has been our prime importance and this aspect has given us an edge over others in the industry. To ensure high quality levels we have developed a separate section fully equipped with advance testing equipment and machinery. We conduct specific test on each and every product so that our clients get the best value for their money."

Our manufacturing unit built in 10000 sq. feet area with technologically upgraded to meet the different requirements of the clients. With a state of the art manufacturing unit, we are committed to achieve the set targets. We have separate sections for the different production processes like Fabrication, Painting, Assembling, Machine shop etc.,

ENGINEERING DESIGN well equipped with ultra-modern CAD/CAM facilities, we are a one-stop-solution provider for different industrial needs. With a team of qualified design engineers, we can design and develop superior quality Centrifugal Air Blowers & Fans. Our teams of designers are capable of manufacturing products according to the specifications of the clients. Understanding the requirements of different industries, we design equipment that ensure best performance and yield maximum advantage to the clients.

Why choose us?

High energy efficiency
Cost effective
Reduce noise
High manufacturing quality
Precise flow and pressure
Excellent after sales service and support
ID and FD Fans manufacturers
Centrifugal Blowers for all industries
DWDI Centrifugal Blowers and Fans for HVAC and Air Washer Units

Industries Served

- | | | |
|------------------|------------------|------------|
| • Foundry | • Plastics | • Coal |
| • Pharma | • Furnaces | • Cement |
| • Iron/steel | • Cotton/Ginning | • Chemical |
| • Textile | • Paper Mill | • Food |
| • Boiler | • Plywood mfg. | • Ceramics |
| • Gasifier Plant | | |

Our Products

CENTRIFUGAL BLOWERS

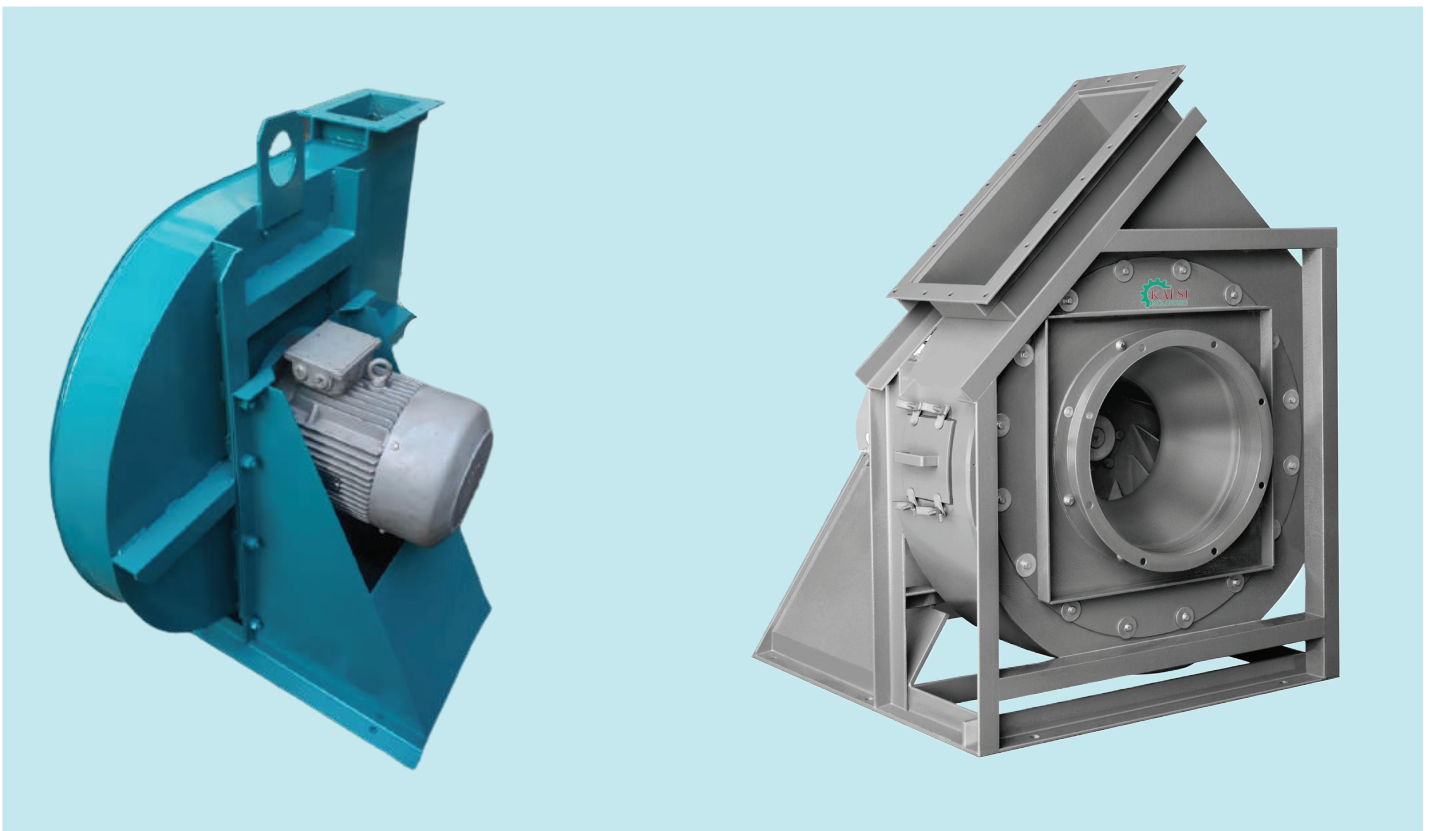
We have developed a series of Blowers for almost all the industrial requirements. Centrifugal Blowers designed and supplied by us are proven, efficient, reliable, smooth and sturdy. These are categorized by their pressure generation capacities & Drive types.

Centrifugal Industrial Blowers can be considered as the heart of any processing industry. It is known as many types like ID Fan, FD Fan, Industrial Blower, High Pressure Fan, Hot Air Circulation fan according to application.

We Supply following types of impellers bases on application requirement.

- Radial Blade
- Backward Curved / Backward Inclined
- Forward Curved
- Airfoil Blades

We Supply following types of Blowers bases on application requirement : -





LOW PRESSURE BLOWER

Generally used as ventilation fans / gas exhaust fans

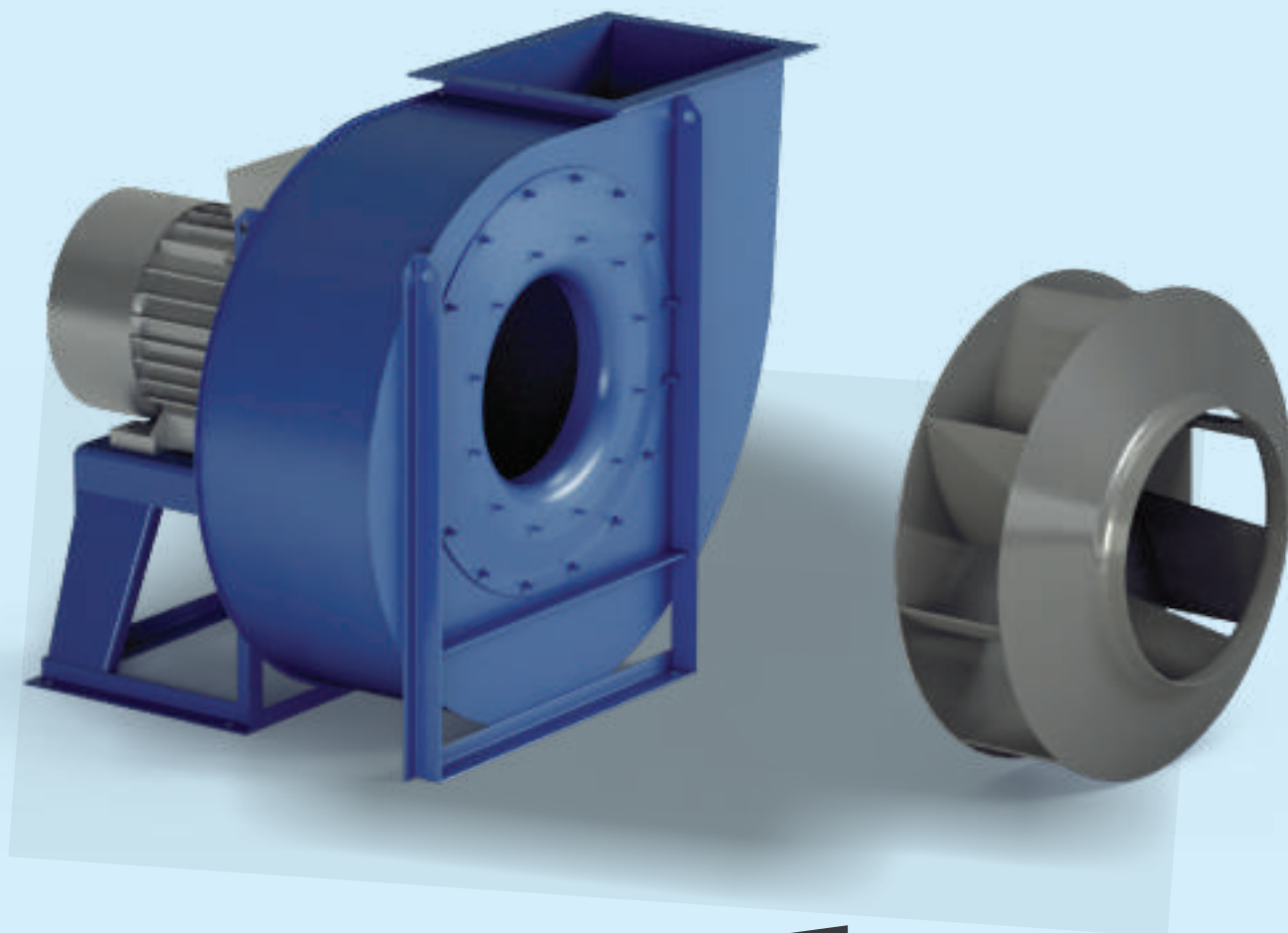
Single or double inlet types fans are very efficient and useful for fresh air supply, ventilation. Impellers are backward curved and forward curved type. Fans are generally used for clean air duty.

Operating Range:

- Air flow (Capacity) : 300 CMH to 250000 CMH
- Motor up to 225 kW
- Static pressure range : 20mm to 150 mm
- Construction materials of Casing: Mild Steel and Stainless Steel
- Max RPM range : 300 RPM to 1450 RPM
- Low noise level
- Construction materials of Impeller: Mild Steel and Stainless Steel

Applications:

Low pressure blower is used if the focus is on high air flow and very low pressure. Low pressure blower for industrial applications generates pressures up to 150 mmWC.



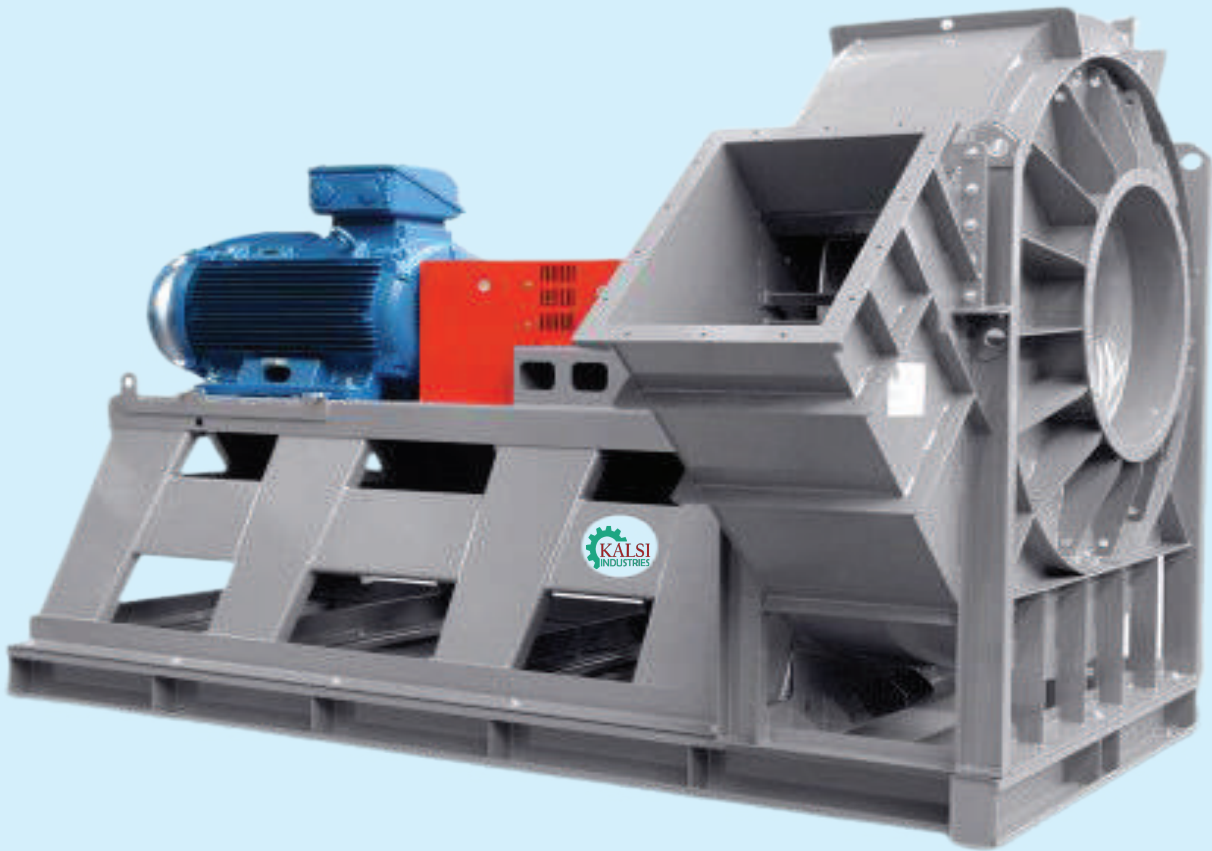
MEDIUM PRESSURE BLOWERS

Generally used as exhausters.

These are employed for air containing dust or particles, fiber, flakes and having higher temperatures than ambient. Usually offered in single inlet types fans are moderately efficient and useful for creating draft in systems. Impellers are Radial Blade or backward inclined or curved blade type having flat or Airfoil designs, with Shrouded or open constructions. Split housings facilitate wheel removal without disturbing connecting ductwork.

Operating Range:

- Air flow (Capacity) : 300 CMH to 200000 CMH
- Motor up to 200 kW
- Static Pressure Range : 150 mm to 650 mm
- Construction materials of Casing: Mild Steel and Stainless Steel
- Max RPM range : 800 RPM to 3000 RPM
- Construction materials of Impeller: Mild Steel and Stainless Steel



HIGH PRESSURE AIR FANS

Generally used for combustion and very high Resistance Operating Range

- Air flow (capacity) range: 400 CMH to 100000 CMH
- Static Pressure Range: 700 mm to 2000 mm
- Max RPM range : 800 RPM to 2900 RPM
- Motor up to 250 kW
- Material of Construction : Mild Steel and Stainless Steel

PLUG FAN

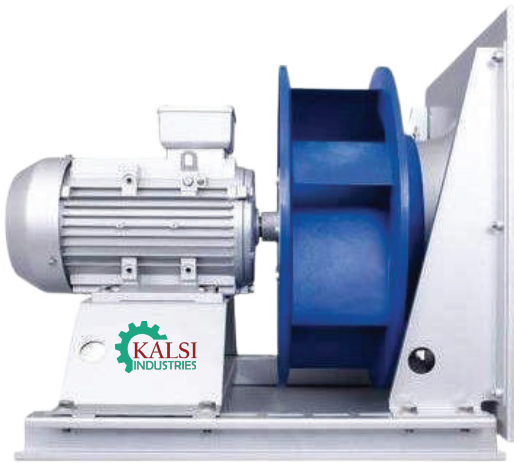
Backward-inclined centrifugal wheels are designed to provide efficient and reliable operation for commercial and industrial applications. They are suitable for supply, exhaust, or recirculation systems. In most instances, plug fans are unshoused and rely on the plenum space around the wheel to direct airflow as required in the system. This style of fan is designed with the motor, bearings, and drives out of the airstream, which allows for use in clean, contaminated or high temperature systems.

Operating Range

- Volumetric flow capacity up to 1,50,000 m³ /hr
- Maximum pressures of 150 mmWC
- Maximum operating temperature of 300°C
- Belt or direct drive

Typical Applications

- Heating and air conditioning systems
- High temperature processes such as ovens, dryers and kilns
- Spray booth evaporators and textile dust collectors



SQI CENTRIFUGAL BLOWERS

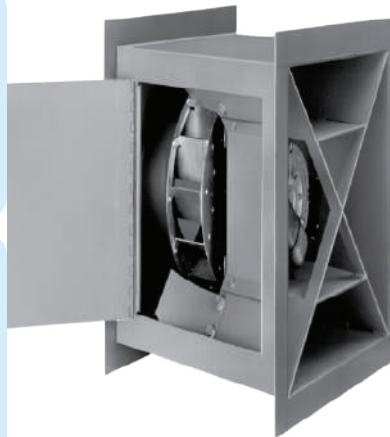
To on, in Typical applications include conveying, induced draft, industrial ovens, and similar high temperature installations 300°C. For greater safety in explosive environments, spark resistant construction is offered. Lint-free construction which housing hardware is reversed to limit obstructions in the airstream, minimizes lint build-up.

OPERATING RANGE

- Air flow (capacity) range : 100 CMH to 15000 CMH,
- Static Pressure Range : 150 mmWC to 500 mmWC,
- RPM variation : 1450 - 3000,
- Motor KW : up to 25 KW,
- Material of Construction : Mild Steel and Stainless Steel

TYPICAL APPLICATIONS

- Material conveying
- Dust collection
- Oven exhaust
- Dryer exhaust
- Paper trim transport



DWDI – DOUBLE WIDTH, DOUBLE INLET

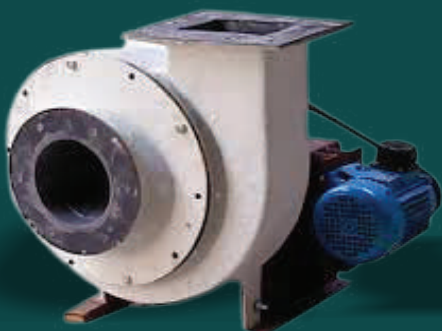
DWDI fans are generally supplied for V-belt drive and Coupling Drive. The wheel is mounted between the bearings and supported by the fan housing. Since both bearings are located in the airstream, standard DWDI fans should be used for clean air applications with air temperatures limited to 130°F. The motor can be mounted in any of the four standard motor

Positions: W, X, Y or Z.



PP-FRP or MS-FRP BLOWERS

PP-FRP Blowers are mostly used to resist weathering, corrosive fumes and gases etc. They are specially designed for laboratory Ventilation, laboratories to handle highly corrosive gases and fumes. They have been proven suitable for pickling plants and other refining processes, electroplating and pharmaceutical chemical industries etc. The fans are also available as per the client requirement. They are available in Direct or V- belt drive types. MS-FRP Centrifugal Blowers in capacity range from 500 CMH to 6000 CMH and static heads ranging from 50 mm to 750 mm water column. Our range of pollution control equipments are centrifugal Blowers, Wet Scrubbers, Fume extraction systems, Venturing Scrubbers, fume stacks etc. Material of Construction: PPFRP, HDPEFRP, PP Blowers.



Flange Mounted Blower



INLINE FAN

Inline fans, centrifugal duct fans are the ideal air movers for residential, commercial and industrial applications. The quiet and efficient airfoil impeller is capable of developing significant pressure and the inline configuration simplifies installation. The unique motor design, combined with high quality materials and workmanship, results in a truly versatile fan. The in-line configuration of these fans simplifies installation. We also offer these fans as per the customized designs provided by the clients.



TYPES OF IMPELLER



Forward Curved



Radial Blade



Backward Inclined



Backward Curved



Airfoil



Paddle Open Blade



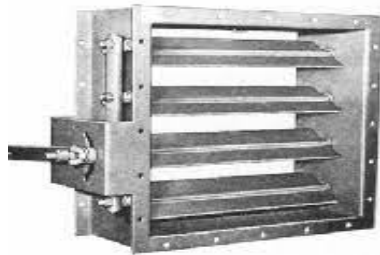
Open Radial Blade



DWDI Impeller

Damper

Multi-vane damper fitted at the inlet of the fan are used for smooth start up of the fan and pressure control during normal operation. These come with manual and automatic version in various diameters for different capacities.



Vibration Isolator

In order to reduce the vibration level at site the fan can be supplied with vibration isolator.



Pulley

Different size of pulley to achieve different rotational speeds are available. Simple and taper lock pulleys are available in different grooves.



Pulley



Taper Lock Pulley



Taper Lock Pulley Bush

Coupling

Pin Bush



Grid Coupling



Tyre Coupling



Pedestal

Different sizes of composite Pedestal as well as Plummer blocks are available as per load and requirement of blowers.



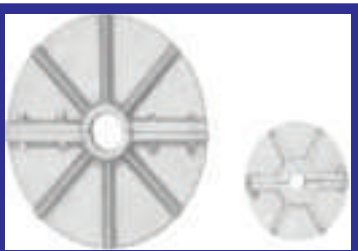
Composite Assembly



Plummer block Assembly

Shaft Cooler (Heat Slinger)

Cast aluminum shaft cooler dissipates the heat transferred to the shaft from the airstream protecting the fan bearings.



Cooling disk


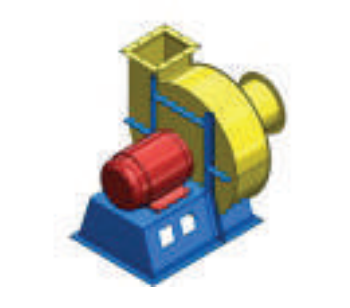
















Shaft Cooler

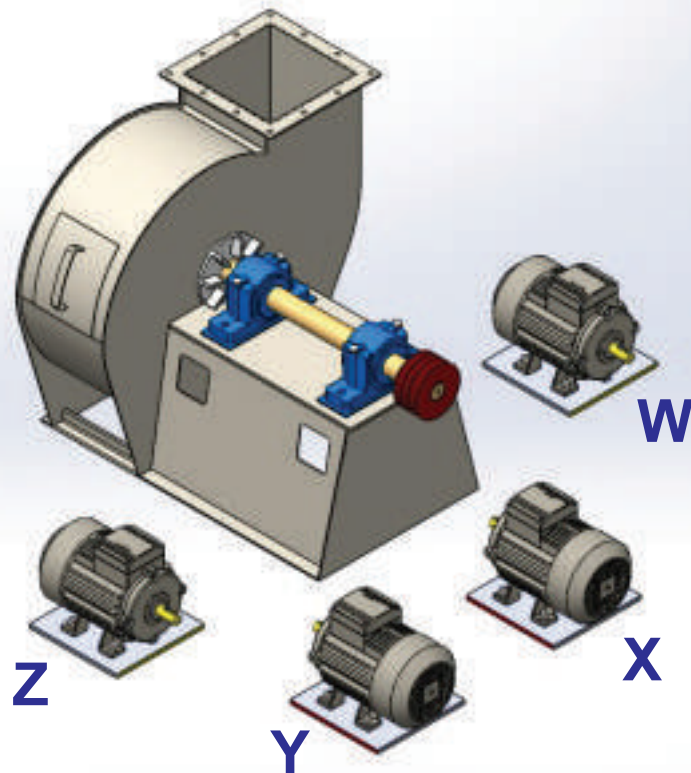


Stuffing Box

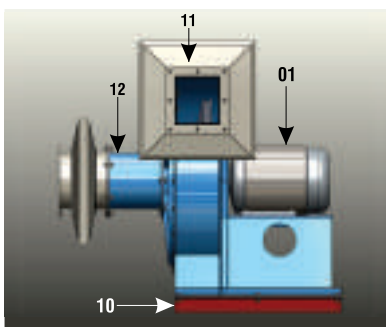
BLOWER DISCHARGE POSITION CHART

A DRIVE SIDE ANTI CLOCK WISE TOP VERTICLE-360 	E DRIVE SIDE CLOCKWISE TOP VERTICLE-360 	I DRIVE SIDE ANTI CLOCKWISE BOTOM ANGULAR UP-315 	M DRIVE SIDE CLOCKWISE BOTOM ANGULAR UP-315 
B DRIVE SIDE ANTI CLOCK WISE TOP HORIZONTAL-90 	F DRIVE SIDE CLOCKWISE TOP HORIZONTAL-90 	J DRIVE SIDE ANTI CLOCKWISE TOP ANGULAR DOWN-135 	N DRIVE SIDE CLOCKWISE TOP ANGULAR DOWN-135 
C DRIVE SIDE ANTI CLOCK WISE DOWN BLAST-180 	G DRIVE SIDE CLOCKWISE DOWN BLAST-180 	K DRIVE SIDE ANTI CLOCKWISE TOP ANGULAR UP-45 	O DRIVE SIDE CLOCKWISE TOP ANGULAR UP-45 
D DRIVE SIDE ANTI CLOCK WISE BOTTOM HORIZONTAL 270 	H DRIVE SIDE CLOCKWISE BOTTOM HORIZONTAL 270 	L DRIVE SIDE ANTI CLOCKWISE BOTTOM ANGULAR DOWN 225 	P DRIVE SIDE CLOCKWISE BOTTOM ANGULAR DOWN 225 

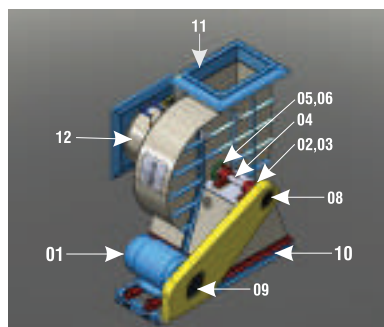
Motor Mounting Position as Standards



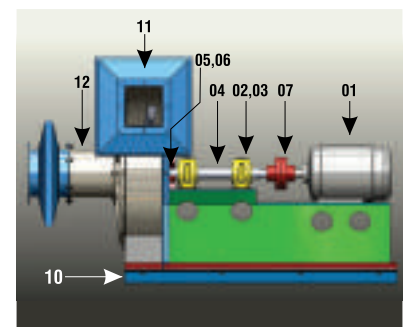
CENTRIFUGAL FANS ARE RECOMMENDED BY DRIVE TYPE ARRANGEMENTS.



1.DIRECT DRIVE



2.V-BELT DRIVE



3.COUPLE DRIVE

TERMINOLOGY FOR 'MITTAL' FAN PARTS / ACCESSORIES

SR. NO	PART NO.	ACCESSORY	SR. NO.	PART NO.	ACCESSORY
01	01	DRIVE MOTOR	07	07	FLEXIBLE COUPLING
02	02	BEARINGS	08	08	FAN PULLEY
03	03	BEARING BLOCK	09	09	MOTOR PULLEY
04	04	DRIVE SHAFT	10	10	VIBRATION ISOLATORS
05	05	HEAT SLINGER/COOLING DISK	11	11	EXPANSION BELLOW
06	06	GLAND SEAL	12	12	DAMPER

AXIAL FANS

AXIAL FLOW FANS, BIFURCATED FANS, MAN COOLER FAN, PRODUCT COOLING FAN, WALL MOUNT FAN

We Provide effective air supply or exhaust through a ducted system requiring high static pressure. Can be connected to a Hood and Duct System for effective remote exhaust or filtered ventilation air supply systems.

Features

- Duct fans in series for tunnel ventilation requiring static pressure up to 7-8" mmWC.
- Different blades combination for low noise at higher RPM.
- Being electrically connected-Ready to start
- Sweep Diameter Range: 310 mm to 1200 mm (12" to 48")
- Airflow Range : 1000 to 40000 CFM
- Static Pressure Range : 0 to 75 mmWC (0" to 3" mmWC)
- Motor Rating Range : 0.5 HP to 20 HP
- Drive : Direct / V-belt
- MOC : Mild Steel and Stainless Steel
- RPM : 720 to 1440 RPM

Construction:

Complete with heavy casing tube, Motor base, Impellers-Fabricated MS/Al or Cast Aluminum blades.

Impeller Balancing:

Statically & dynamically balanced to ISO G6.3

Mounting Option:

Cooling Axial Fan, Tube Axial Fan (Standing, Wall Mounting, Roof Mounting), Bifurcated Axial Fan (Standing, Wall Mounting), Customized Axial Fan (Couple Driven, V-Belt Driven)



Wall Mounted /Man cooler Fan



Axial Fan Direct Drive



Tube Axial Fan Direct Drive



Pedestal Man Cooler Fan



Bifurcated Fan



Square Fan



Tube Axial Fan



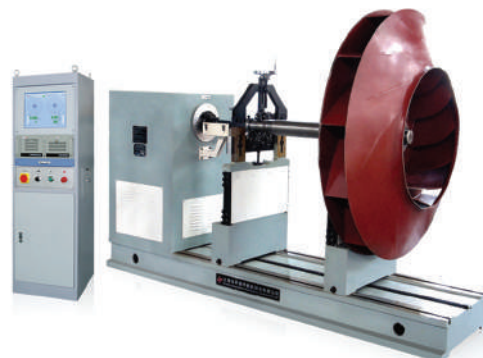
Tube Axial Fan

DYNAMIC BALANCING

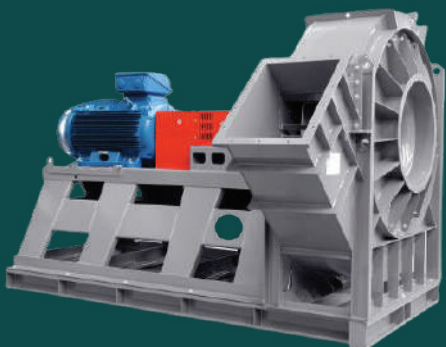
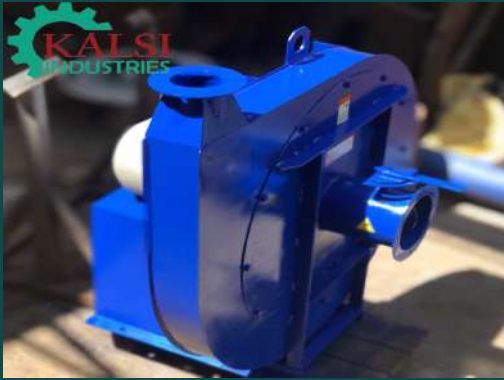
A ROTATING SYSTEM OF MASS IS IN DYNAMIC BALANCE WHEN THE ROTATION DOES NOT PRODUCE ANY RESULTANT CENTRIFUGAL FORCE OR COUPLE. THE SYSTEM ROTATES WITHOUT REQUIRING THE APPLICATION OF ANY EXTERNAL FORCE OR COUPLE, OTHER THAN THAT REQUIRED TO SUPPORT ITS WEIGHT. IF A SYSTEM IS INITIALLY UNBALANCED, TO AVOID THE STRESS UPON THE BEARINGS CAUSED BY THE CENTRIFUGAL COUPLE, COUNTERBALANCING WEIGHTS MUST BE ADDED.

TO CORRECT DYNAMIC IMBALANCE, THERE ARE THREE REQUIREMENTS:

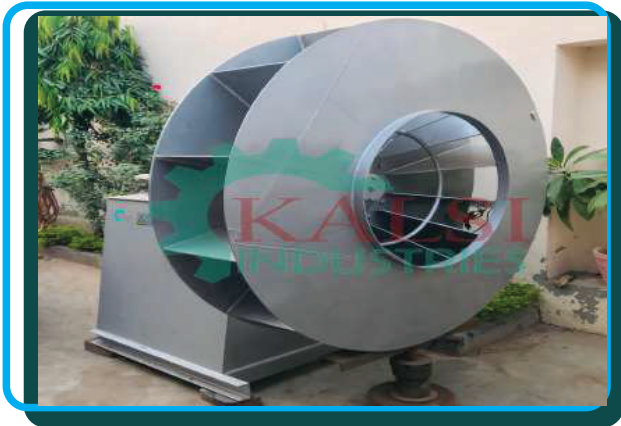
- 1) A MEANS OF SPINNING THE OBJECT
- 2) A FRAME TO ALLOW THE OBJECT TO VIBRATE PERPENDICULAR TO ITS ROTATION AXIS
- 3) A MEANS TO DETECT THE IMBALANCE, BY SENSING ITS VIBRATING DISPLACEMENT, VIBRATION VELOCITY OR (IDEALLY) ITS INSTANTANEOUS ACCELERATION.



BLOWER GALLERY



GALLERY





www.kalsiindustries.com



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