

Best in Class Energy Efficiency Ratio
Industry Leading Performance
Time Proven Reliability

PERKINS BLOWERS CO.

Plot No. 100, Phase- IV, Sec-57, HSIIDC, Kundli, Sonapat, Haryana, India

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P Introduction

Perkins Blowers Co started manufacturing Fans & Blowers, General Ventilation and Air Pollutions Control Equipments way back in 2002. The plant is located in HSIDC Indl. Estate Kundli, Sonapat, Haryana, and equipped with latest Machines. Over these years the company has proliferated its technological base and bringing a wide range of High Pressure Blowers and Systems that are specially designed to meet the requirements of highly sophisticated industrial machines/ applications. Our manufacturing expertise ensures competitive, efficient, robust & energy-saving solutions. Those have acclaimed reputation India-wide for applications in processes involving hazardous, harmful or explosive gases.

Perkins Blowers have proven performance in pressure applications up to 1550 mm of WG. Also developed a new blower series to meet the requirement to meet abundant air quantity at low pressure and low power for general ventilation purpose. Ever since its inception, Perkins operating philosophy has been that of providing its customers with an international quality product at a significant price advantage. We have always focused on backing our excellent quality of production with an efficient after sales service to bring post purchase dissonance down to a negligible level. This has resulted in a situation where virtually no marketing is necessary and demand chases the supply.

Perkins has a well versed sales personnel who possesses years of experience in the field of application engineering and are capable of suggesting a best system for specific requirements; right from conceptualization, engineering, cost analyses, techno commercial report submission, designing, manufacturing, installation and maintenance. We hold the reputation of meeting the rated performance of the installed projects ensuring no time wastage of customer and thereby significantly earning the confidence of customer. We have state of the art facilities for designing and development using CAD & CAM facilities for designing our equipments.

Perkins also takes pride in our custom-tailored solutions that revolve around well-engineered products maintained at competitive prices. All our products are available in an assortment of construction materials including mild and stainless steel, aluminum, plastics or even special alloys to meet the dynamic requirements of application and adopt newer technology as per changing times.

Our motto "Excellence By Design", reflects our commitment to providing the best, from quotation to installation and beyond. We will do everything in our power provide excellence in service to our customers.

As the nature of our Business wherein the sizes are endless; our in-house tool room aids us in adopting and implementing dies, jigs, fixtures "Just in Time" and ensures to meet the delivery target and of course the surface finish of products under manufacturing.

We specialize in working with the following specified Industries: All process plant & Industries, Cement Industries, Textile Industries Spinning & Weaving units, Steel Industries steel re-rolling mills, furnaces, Engineering Companies, Chemical Industries Pharmaceuticals / Fertilizer plants, Glass & Ceramic Industries, Captive Power Plants (Diesel Generators / Turbine Houses/ Boilers), Soap / detergent Industry and many more

P **The nature of projects/ equipments we deal with:**

- * Industrial Axial-Fans
- * Industrial Centrifugal Blowers
- * Evaporative Air Cooling Systems (Media & Spray Type)
- * Air Curtain (For Energy Conservation)
- * Roof Extractors
- * Cyclone Separator/Dust Collector
- * Bag Houses (Bag Dust Collectors)
- * Industrial Fume Exhaust Systems
- * Wet Scrubber (For Hazardous Gases)
- * Sound Proofing (D.G. Enclosure)
- * Air Filters (HVAC)
- * Air Control & Distribution Equipments (Dampers, Grills & Diffusers)

We also provide General purpose Ventilation Systems, Air Pressurization, and Energy Audit for Air Moving Equipments.



Precise Machineries
(Profile Cutting)

Best Welding
(MIG/TIG/Spot/Gas)

Exclusive Surface
Finish

Computerized Testing
(Dynamic Balancing)

Does your utility machineries consuming higher energy and eroding your business margins; consult us for a perfect energy efficient remedy and experience the gain year after year. Hundreds of our "Monumental" projects speaks their performances on their own.



Industrial Axial Flow Fans

Perkins Axial Flow Fans covers a wide range of air quantities and pressures, and are suitable for common ventilation of plants as well as special industrial installations.

These fans have cast aluminum alloy impellers with high-efficiency aerofoil section blades. They are designed to optimized the relationship between air quantity, pressure, and power consumption.

These fans can be tailored to various arrangements according to need. Arrangement (X): Direct Driven Vane Axial Fans. Arrangement (Y): Indirect Driven (Belt driven) Vane Axial Fans.

The Vane axial fans are further classified as Fixed blade and Variable pitch Blade Fans. Normally foot mounted motors are used to power the impeller in an direct driven arrangement. In applications where the temperature and/or quality of air does not allow to flow over motor, we manufacture axial fans power train in IP55 Enclosure using ball bearings and V-Belt drive arrangement; virtually all parts become unexposed to the handled air.



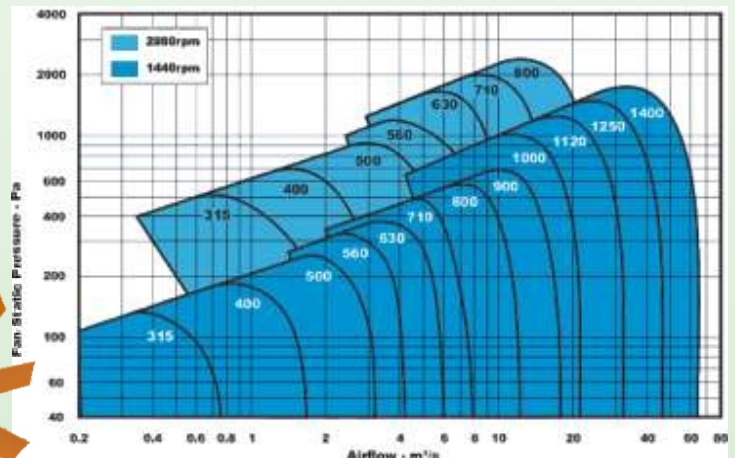
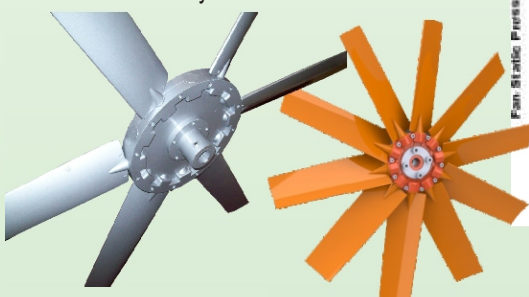
Vaneaxial Fans Die Casted Aluminum Fans

Model	RPM	Motor HP	CAPACITY (CMH) AT VARIOUS STATIC PRESSURES											Limit Load HP
			Free Delivery	6mm	12.5mm	19mm	25mm	32mm	38mm	45mm	50mm	65mm		
PV-380	2860	1.5	7820	7650	7480	7200	6800	6375	5780					0.056
	1400	0.25	3825	3340										
PV-450	2860	5	13515	13300	13050	12800	12500	12070	11650	11100	10500	8925	0.14	
	1400	0.5	6610	6050	4970									
PV-530	1440	1.5	10838	10250	9270	7900								
	930	0.5	6970	5780									0.303	
PV-610	1440	2	16150	15540	14580	13350	11690							
	930	0.75	10405	9180									0.588	
PV-710	1440	5	25602	24900	24050	23000	21200	19720	17200					
	960	1.5	17040	15850	13685								1.27	
PV-815	1440	7.5	38080	37400	36380	35360	34000	32300						
	1440	10							30450	28220	24650		2.47	
	960	2.5	25330	24055	22100	19125								
PV-915	1460	15	55040	54230	53300	52200	51000	49640	47770	45800	43180	37400	4.47	
	960	5	36150	35020	32980	30100	26265							
PV-1065	960	10	57800	56270	54400	51700	48025	43690	38200				9.65	
	720	5	43265	40970	37000	31500								
PV-1220	960	20	85765	83300	82650	80325	76840	42850	68200	62560	56000		18.8	
	720	7.5	64400	61880	58750									
	720	10				53800	47000							
PV-1370	970	30	123500	121890	119680	116960	113900							
	970	35						72845	106760	102000	96730	83250	33.8	
	720	15	91530	89760	84830	80240	74800	66980	57000					

(Higher sizes upto 1600 mm can be manufactured upon specific requirements)

Energy Efficient Fans

Perkins has developed a new Energy Efficient Series Fans of Al & GRP-Material to save the power up to 10% of the conventional fan impellers. These impellers have adjustable pitch blade (10 to 40 Deg.) and Operating temperature range from -40 to 110 Deg Cel. Max. & Efficiency 86%.



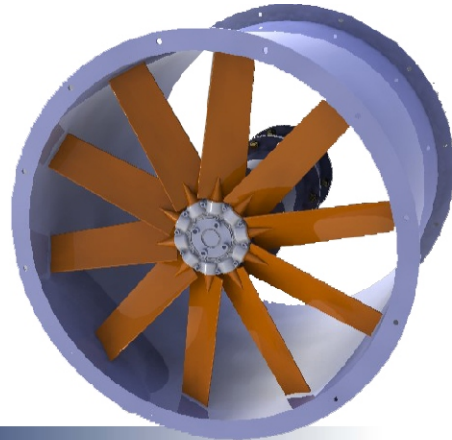


Vane Axial Fans with Aluminium Blades

Vane Axial Fan, with Aluminum Blades in Direct Driven arrangement. Normally used for Industrial-purpose Ventilation and Exhaust applications.

Applications:

- Textile Humidification
- Captive Power Plant Ventilations
- Generator Canopies
- Supply Air
- Exhaust/Venting applications



Vane Axial Fan with GRP Blades



Vane Axial Fan with GRP Blades (Energy Efficient Series) in Direct driven arrangement. Normally used for general-purpose ventilation and exhaust.

Applications:

- Generator Canopies
- Exhaust Air Axial Flow Fan
- Roof Extractor
- Booster Fans for in-line ducts etc.

Bifurcating Fan

Bifurcating Fan with Aluminum/GRP Blade. Normally used for High temperature & dusty air/fumes.

The Drive motor gets ventilation from a different chamber (usually exposed to atmosphere).

The process air is generally ducted at both ends of fans and travels without striking electric motor.

A drop in efficiency of around 25% is to be reckoned for such selections.



Vane Axial Indirect Driven Fan



Vane Axial Fan with Aluminum/GRP Blade in Indirect Driven arrangement (V-Belt driven).

Normally used for High temperature & dusty air/fumes.

All the impellers are available in wide ranges of dia. and number of blades to achieve coverage entire applications possible. Each impellers is statically and dynamically balanced on micro processor controlled computerized machine as per IS-1940 balance quality grade G-6.3.



Centrifugal Fans

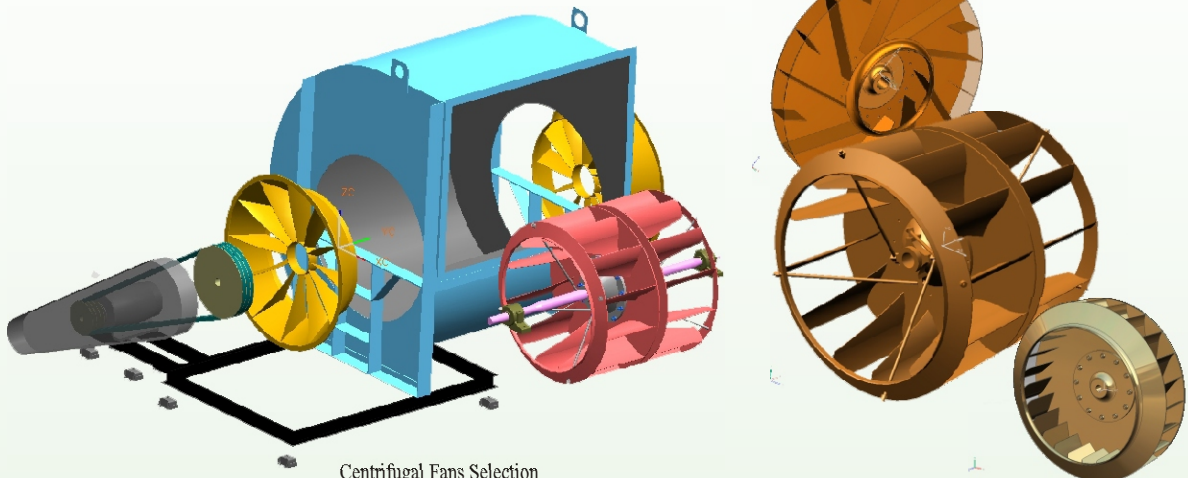
Perkins Centrifugal Fans are well engineered, high efficiency, Low noise air moving blowers, are manufactured with latest machineries to meet the requirement of process / clean air handling applications in Foundry, Power Plants, Engineering Industries and Cement Producing Plants.

These Fans are provided with single and multiple (Parallel or series operation) impellers to suit wide range of air discharge and pressure development combinations.

These Fans are made in a wide range of impeller sizes varying from 200 to 2750mm diameter having air-handling capacities of 500CMH to 3,00,000CMH, while the pressure developed by the fan could be as high as 1500 mm WG (Reference air/gas density of 1.20 Kg./cu.mtr.).

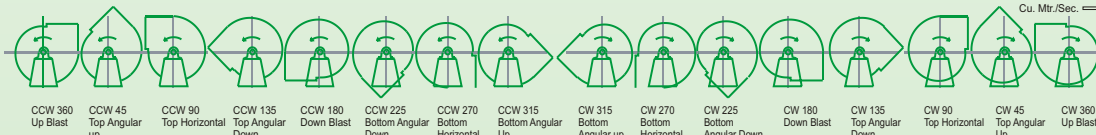
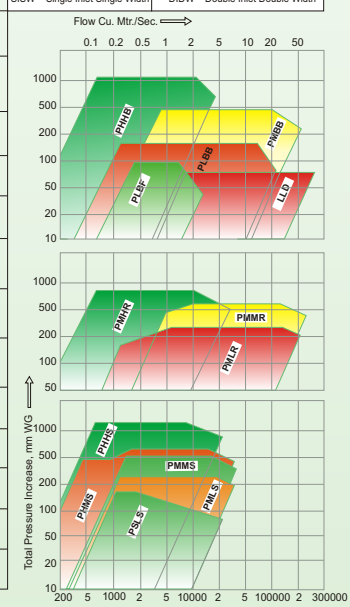
These Fans can be fabricated in Mild Sheet Steel/ SS-304/ SS-316-L/ SS-310/ Aluminum alloy & FRP Coated at reasonably higher thickness. We provide exclusive surface finishing & coating such as Hard Chrome grounded Shaft, Enamel/ Epoxy / PU/ Rubber seal paints.

The impeller blades are multibladed construction with its blade of special contour engineered to handle varied quality air streams. Based on application/ air quality the fan impellers cans be selected.



Centrifugal Fans Selection

Centrifugal Fans with different geometry Blade & related performance.		The fans are selected based upon the required Air Quantity (CFM-Cubic Foot per minute/ CMH-Cubic Meter per Hour), the air path resistance measured as total pressure drop (mm of WG-millimeter of water gauge), temperature of air in degree celcius, and the application where in the fan has to discharge/handle quality of air/dust/fume etc. Further the fans are classified quality of Fan Arrangements & Orientation such as "Arr(X)"=Direct Driven & "Arr(Y)"=Indirect (Belt) Driven, "CCW"=Counter Clock Wise Rotation from driven end & "CW"=Clock Wise Rotation from drives end, "DIDW"=Double Inlet Double Width & "SISW"=Single Inlet Single Width Fans.	Clean Air / Gases	Air / Gases with High Humidity	Air / Gases with High Dust content	Air / Gases with Adhesive Dust Gases & Similar General	Arr(X) = Direct driven Fan SISW = Single Inlet Single Width	Arr(Y) = Indirect driven DIDW = Double Inlet Double Width
Forward Curved Blade	PLBF Low Pr. Forward Curved Blade	The fan wheel has forward-curved blade. These are silent-running low pressure fan for use in industrial and comfort ventilation plants. It covers the flow ranges up to 50,000CMH and pressure up to 85mm of WG.	●					
Back Curved Blade	PLLD Low Pr. Back Limit-Load Series	The fan wheel has back-curved with special "s" profile blade. These are silent-running low pressure fan with huge air quantity for use in industrial and comfort ventilation plants. It covers the flow range up to 3,00,000 CMH and pressure up to 75mm of WG. The inlet guide vanes makes these blowers industrial leading in energy efficiency.	●					
SS Shape Blade	PLBB Low Pr. Back-curve	The fan wheel has back-curved blade. It covers the flow ranges up to 2,40,000 CMH and pressure up to 150mm WG. Its highest total efficiency is 83-86%, depending upon the size of fan	●					
Back Curved and Inclined Blade	PMMB Medium Pr. Back-curve	The fan wheel has back-curved blade. It covers the flow ranges up to 2,50,000 CMH and pressure up to 450mm WG. Its highest total efficiency is 83-86%, depending upon the size of fan	●					
Back Curved and Inclined Blade	PHHB High Pr. Back-curve	The fan wheel has back-curved blade. It covers the flow ranges up to 40,000 CMH and pressure up to 1200mm WG. Its highest total efficiency is 83-86%, depending upon the size of fan	●					
Radial Blade	PMLR Medium Low Pr. Radial-curve	The fan wheel has radial-curved self cleaning blade. It covers the flow ranges up to 2,30,000 CMH and pressure up to 300mm WG. Its highest total efficiency is 75-85%, depending upon the size of fan.	●	●				
Radial Blade	PMMR Medium-Medium Pr. Radial-curve	The fan wheel has radial-curved self cleaning blade. It covers the flow ranges up to 3,00,000 CMH and pressure up to 600mm WG. Its highest total efficiency is 75-85%, depending upon the size of fan.	●	●				
Radial Blade	PMHR Medium High Pr. Radial-curve	The fan wheel has radial-curved self cleaning blade. It covers the flow ranges up to 1,20,000 CMH and pressure up to 800mm WG. Its highest total efficiency is 75-85%, depending upon the size of fan.	●	●				
Straight Radial Blade	PSLS Low Pr. Straight-Radial	The fan wheel has straight radial blade. It covers the flow ranges up to 30,000 CMH and pressure up to 80mm WG. Its highest total efficiency is 65-80%, depending upon the size of fan.	●	●				
Straight Radial Blade	PMLS Low-Medium Pr. Straight-Radial	The fan wheel has straight radial blade. It covers the flow ranges up to 30,000 CMH and pressure up to 200mm WG. Its highest total efficiency is 65-80%, depending upon the size of fan.	●	●	●			
Straight Radial Blade	PMMS Medium-Medium Pr. Straight-Radial	The fan wheel has straight radial blade. It covers the flow ranges up to 40,000 CMH and pressure up to 400mm WG. Its highest total efficiency is 65-80%, depending upon the size of fan.	●	●	●	●		
Straight Radial Blade	PHMS High-Medium Pr. Straight-Radial	The fan wheel has straight radial blade. It covers the flow ranges up to 50,000 CMH and pressure up to 600mm WG. Its highest total efficiency is 65-80%, depending upon the size of fan.	●	●	●	●		
Straight Radial Blade	PHHS High Pr. Straight-Radial	The fan wheel has straight radial blade. It covers the flow ranges up to 40,000 CMH and pressure up to 1000mm WG. Its highest total efficiency is 65-80%, depending upon the size of fan.	●	●	●	●		



Direction of rotation is determined form drive end of fan

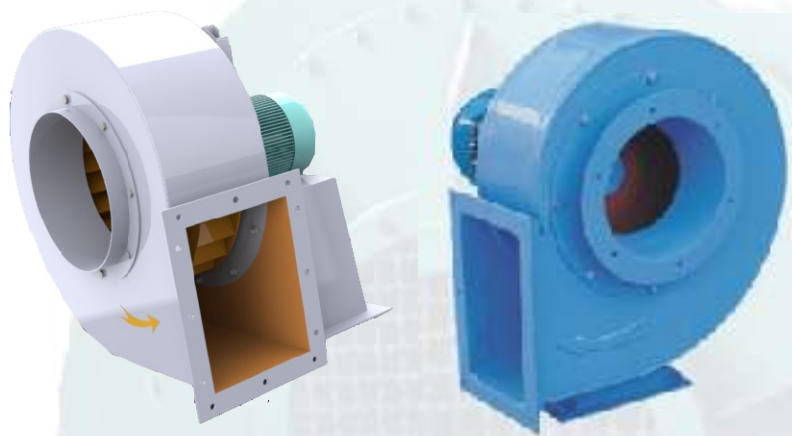
PERKINS

General Purpose Low Pressure Fan

LOW PRESSURE SERIES : These centrifugal air blowers are used where a large quantity of air at relatively low static pressure is required. These blowers find applications in general purpose ventilation, air handling unit etc. and are available in SISW & DIDW construction. The low pressure centrifugal air blowers find applications for wide variety of machineries as fitted by OEMs such as textile machine manufacturers, powder coating plants etc.

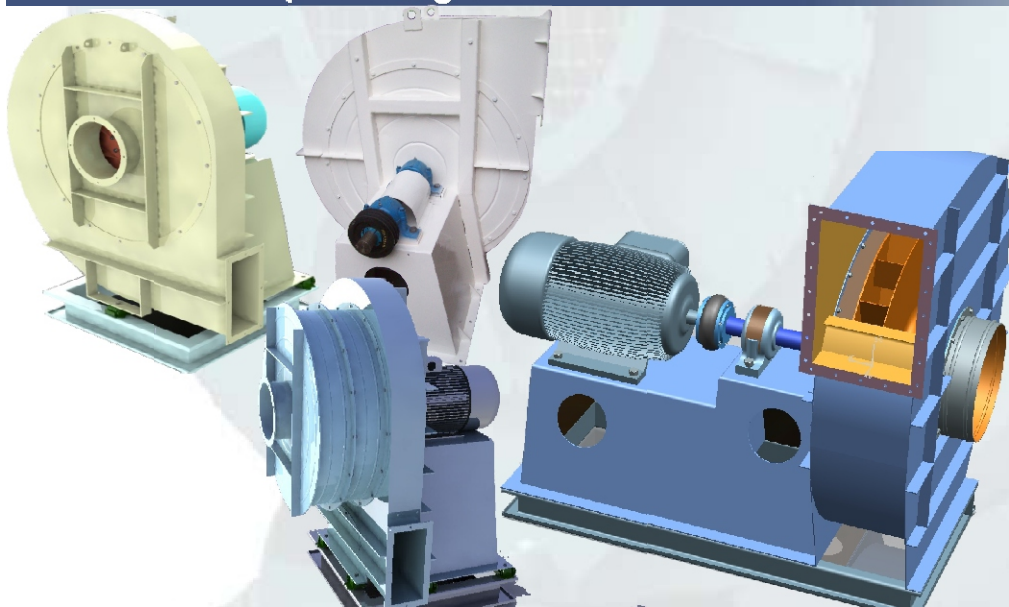


Industrial Purpose Medium Pressure Fan



These SISW blowers are used in various applications covering dust extraction / fume extraction and are widely used in cyclone separators, bag house dust collectors, both inlet and outlet are flanged to receive duct connections.

Industrial Purpose High Pressure Fan



These SISW blowers meet the highest range of pressure up to 1200 mm Wg which can be achieved by using a centrifugal action. These are extremely used in wide variety of applications such as glass plant, furnaces, high pressure dust extraction systems, boilers, incinerators etc.

All the above mentioned models are made in various bill of materials such as Mild steel, stainless steel, Fibre glass reinforced plastic coated etc to meet various levels of operating temperature, corrosive nature, dust particle effect etc. the blade geometry and the air delivery angle is made as per site specific requirements as explained in our business catalogues pages.

Fan Fundamentals:

Air quantity (Volume flow Rate) q_v , in Cubic Meter per unit of time (cu.mtr/sec)

Pressure p , in millimeter of water gauge (mm WG);

$$1\text{mm WG} = 1 \text{ Kg/sq.mt.}$$

The total pressure P_t is measure of the energy supplied to the air flow passing through the blower in quantum is an algebraic sum if the static pressure P_s . And the velocity pressure P_d .

$$P_t = P_d + (P_s)$$

The static pressure is equal to the manometer pressure as measured perpendicular to the direction of flow. The velocity pressure is measure of the kinetic energy of the air. It is calculated from the formula.

$$P_d = \frac{1}{2} \cdot \rho \cdot v \cdot v / g$$

Where v is the air velocity in m/sec, ρ is the density of the air in kg.cu.m (which referring to a temperature of 20Deg. Cel. a relative humidity of 50% and barometric pressure of 760 mm mercury is equal to 1.2kg.cu.mt and g acceleration due to gravity = 9.81m/sec./sec..

The Power required M_e ; bhp

The power required is calculated from the formula

$$M_e = q \times P_t / 75 \cdot n$$

Where n is the total (mechanical) efficiency of the blower.

OUR EMINENT CLIENTS

AARTI Steels Ltd		ITC Limited (Food Division)	
AffiniaMat India Braking Pvt Ltd		Jai Bharat Gums & Chemical Ltd.	
ACTION International		J C Fasteners Ltd.	
Amol Pharmaceuticals Pvt. Ltd.		Jai Prakash Associates Ltd. (Cement Division)	
Bosch Limited		JCBL Ltd.	
Control & Switch Gear Co. Ltd.		Lakshmi Precision Screws Ltd.	
Donaldson India Filtration Systems Pvt. Ltd.		Mec Shot Blasting Equip PL	
Dabur India Ltd.		Mushashi Auto Parts (I) P L	
DLF Ltd.		National Engineering Industries Ltd.(NBC)	
Fiem Industries Ltd.		OSRAM India Pvt. Ltd.	
Gillette India Ltd.		Oriental Carbon & Chemicals Ltd.	
Gold Plus GlassIndl. Ltd.		Poddar Tyres Ltd.	
GoodYear India Ltd		SABOO Coatings Ltd.	
GlaxoSmithKline		Semco Electric Pvt. Ltd.	
HAFED		Sunstar Overseas Ltd.	
HCL Ltd.		Shreyans Industries Ltd.	
HPCL-Mittal Energy Ltd.		TCPL Packaging Ltd.	
Hindustan Nationa Glassl & Industries Ltd		Tarang Kinetics Ltd.	
Hindustan Gums & Chemicals Ltd.		TOYO Springs Ltd	
Indomalt Processors P Ltd.		VOGUE Textile Ltd.	
Hero Cycles Ltd.		Visteon Climate Systems India Ltd.	

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Industrial Ventilation Solutions
& Achieve demanding
Quality Products.



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