



HIGH EFFICIENCY CENTRIFUGAL FANS



*Laxmi* PROJECT

**Manufacturers of : Industrial Blowers & Dust Collector Systems.**

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## INDUCED DRAFT FAN

### HIGH VOLUME MEDIUM PRESSURE FAN

For Boilers, Incinerators, Bag Houses and other industrial application, Fan available in heavy duty construction with or without inlet box.

#### DISTINCTIVE FEATURES

Available in V-Belt drive / Direct Couple drive arrangement. Designed for direct conveying of highly abrasive materials and heavy dust. For handling fibrous materials, the fan is constructed with special impeller design. Designed for handling gases with high temperature (upto 400°C) specially designed fans, to handle even higher temperature can be supplied.



## FORCED DRAFT FAN

### MEDIUM VOLUME MEDIUM PRESSURE FAN

For supply of air for combustion systems, Cooling, Drying, Conveying, Glass Blowing Burners, Cupolas and other Industrial Application.

#### DISTINCTIVE FEATURES

##### DIRECT DRIVE :

Low running cost, Reliable operation, Low installation cost, Low Maintenance cost, It can also be available in Coupling Drive or V-Belt Drive.

Interchangeable impeller : Easy to adapt to altered Flow & Pressure requirements. Backward curved impeller for High efficiency.



## PRIMARY AIR FAN

### LOW VOLUME HIGH PRESSURE FAN

For supply of combustion, Burners, Pneumatic conveying etc. Available in **SINGLE** and **MULTI STAGE** designs.

#### DISTINCTIVE FEATURES

##### DIRECT DRIVE :

Low running cost, Reliable operation, Low installation cost, Low Maintenance cost, It can also be available in Coupling Drive or V-Belt Drive.

Interchangeable impeller : Easy to adapt to altered Flow & Pressure requirements. Backward curved impeller for High efficiency.

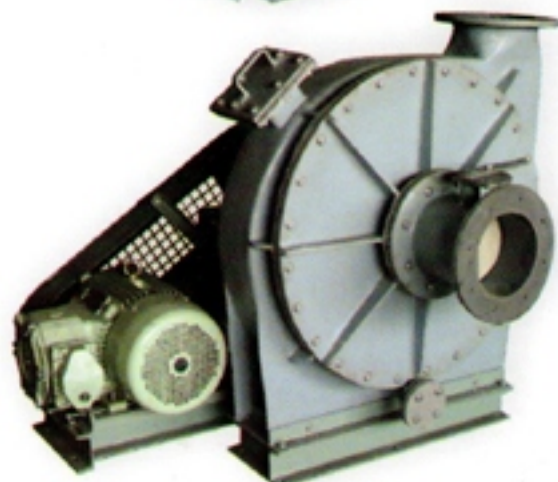


## DIDW FAN

DIDW is a complete series of centrifugal fans designed for the following applications : As supply and exhaust fans in ventilation systems. In air handling units for air conditioning systems. In cold storage plant. For fume extraction in industrial plants. The inlets are aerodynamically shaped ensuring low pressure drop and sound level.

#### DISTINCTIVE FEATURES

High efficiency, Low sound level, Large sizes can be dismantled, Several versions available, Incorporating guide vanes, for smoke extraction.



## NON METALLIC CENTRIFUGAL FAN

Available in V-Belt drive / Direct through Coupling Drive arrangement. Provide Excellent corrosion resistance in most chemical gas environments.



## AXIAL FLOW FAN

Laxmi Axial Flow Fans cover a wide range of air quantities and pressures and are suitable for common ventilation and Air Conditioning plants, Exhaust plants as well as special industrial installations. All Laxmi Axial Flow Fans have cast Aluminium alloy impellers with high efficiency aerofoil section blades.

They are designed for optimum relation between air quantity, pressure and power consumption. Laxmi Axial Flow Fans are available in size 375mm to 1600mm diameter and with an handling capacities ranging from **2500 CMH to 1,00,000 CMH** at an operating pressure fo 5mm to 75mm water guage static head. These fans are available with direct drive arrangements or V-belts drive arrangement, Also in direct drive for high temperature and toxic gases Bifurcated type arrangement is available.

## SPECIAL FANS

The fans described are only illustrative. **Laxmi** can offer special fans to meet the full requirements of the customer.

To enable us to select the right fan for your requirement, please send the following information to our office.

- Application • Type of gas • Gas flow rate • Static pressure • Total pressure • Gas density
- Temperature • Dust content and type of dust • Discharge direction • Any special requirement

**MATERIAL OF CONSTRUCTIONS** : Carbon Steel, Stainless Steel, Aluminum, MS Rubber Lined, MS/FRP Fibre Glass Lined, PP/FRP & MS/SS Spark proof.

**DRIVE SYSTEM** : Through V-Belts & Pulleys, Through Coupling, Direct mounted on motor shaft.

## TYPE OF INDUSTRIES

- Cement Plants • Synthetic Fibre Plants • Nuclear Power Plants • Thermal Power Plants
- Hydro Power Plants • Foundries • Boilers • PVC Plants • Coal Handling Plants
- Pharmaceutical Industries • Hospitals • Hotels • Refineries • Chemicals • Jute Mills
- Paper Mills • Fertilizers Industries • Auto Painting Systems • Steel Sector • Textile Mills

## TYPE OF IMPELLER



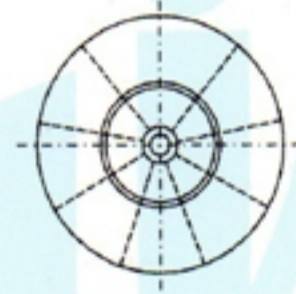
### BACKWARD CURVED IMPELLER

Backward curved blades for handling clean gases, i.e. it can be used in any forced draft applications.



### BACKWARD INCLINED IMPELLER

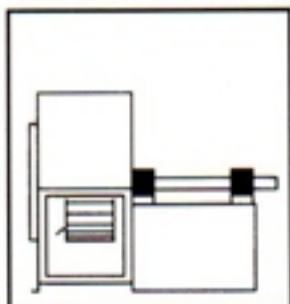
Straight, backward sloping blades for handling both clean and dust laden gases. Good self-cleaning characteristics.



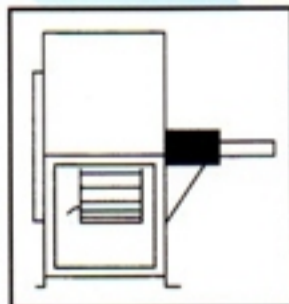
### RADIAL IMPELLER

Straight radial blades for handling gases with higher dust content, moist dust or conveying system. Good self cleaning characteristics. Impeller available with or without shroud & Impeller with hard facing on the vanes.

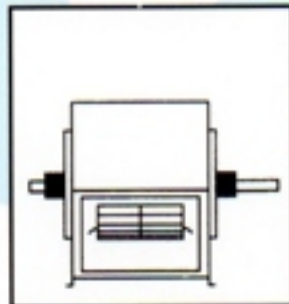
ARRANGEMENT 1



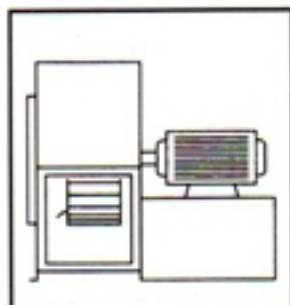
ARRANGEMENT 2



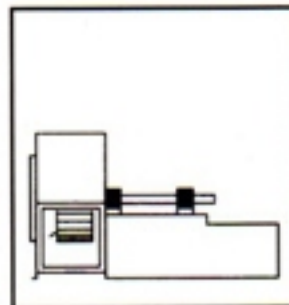
ARRANGEMENT 3



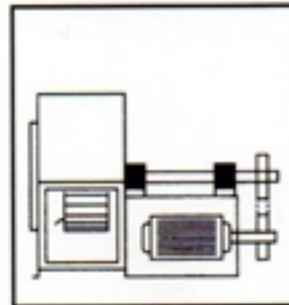
ARRANGEMENT 4



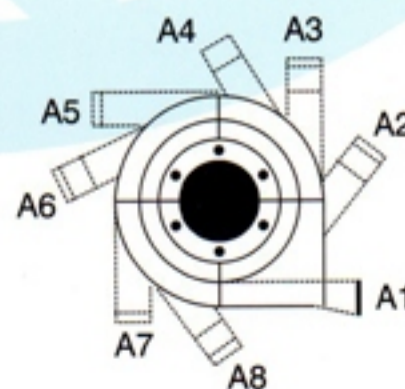
ARRANGEMENT 8



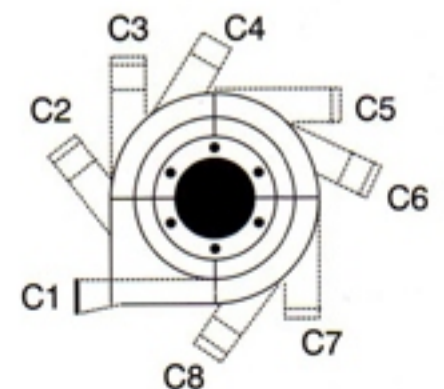
ARRANGEMENT 9



## CUSTOMER TO SPECIFY ORIENTATION DURING ORDER PLACEMENT



Anti-clockwise direction of rotation viewed from suction end.



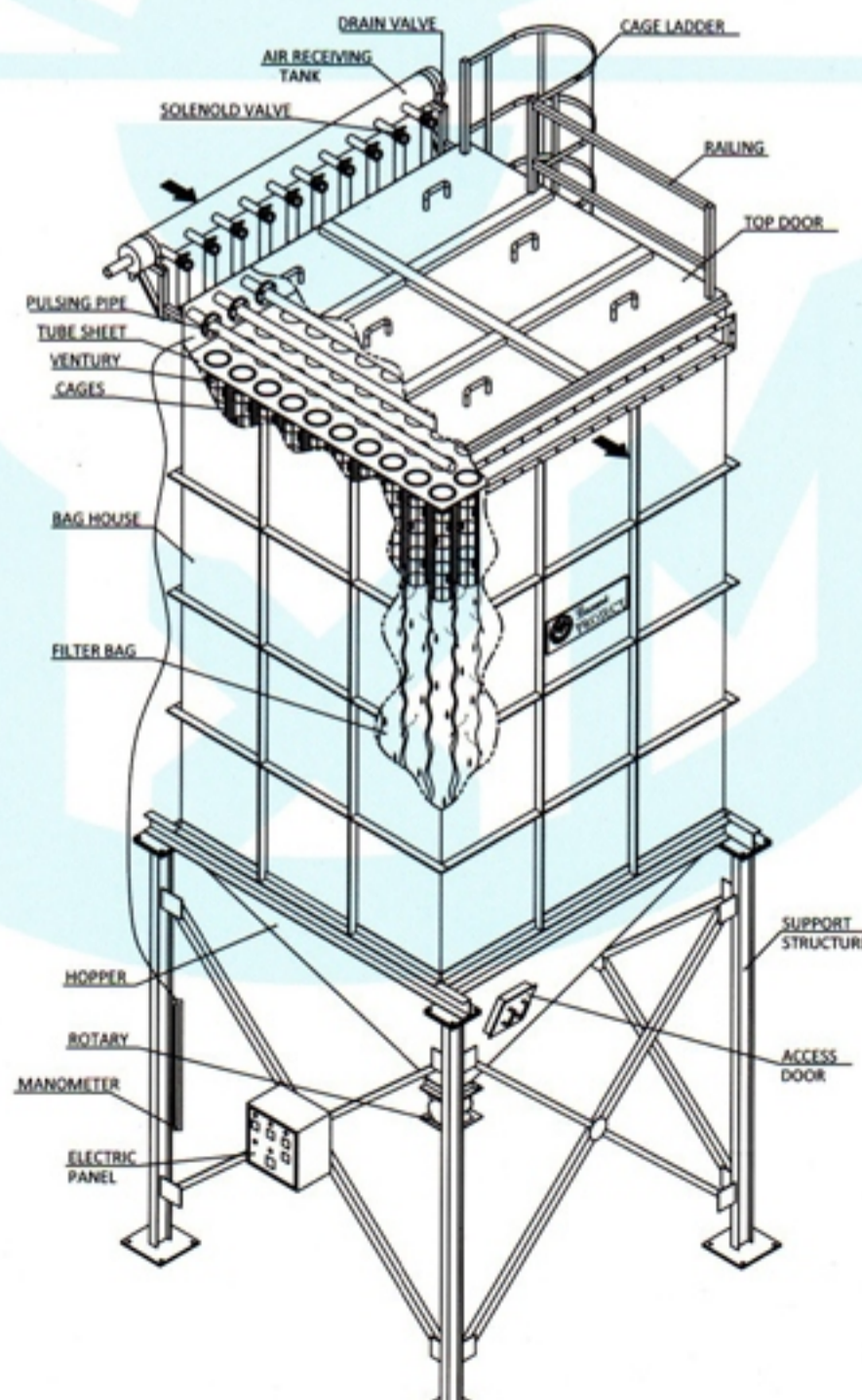
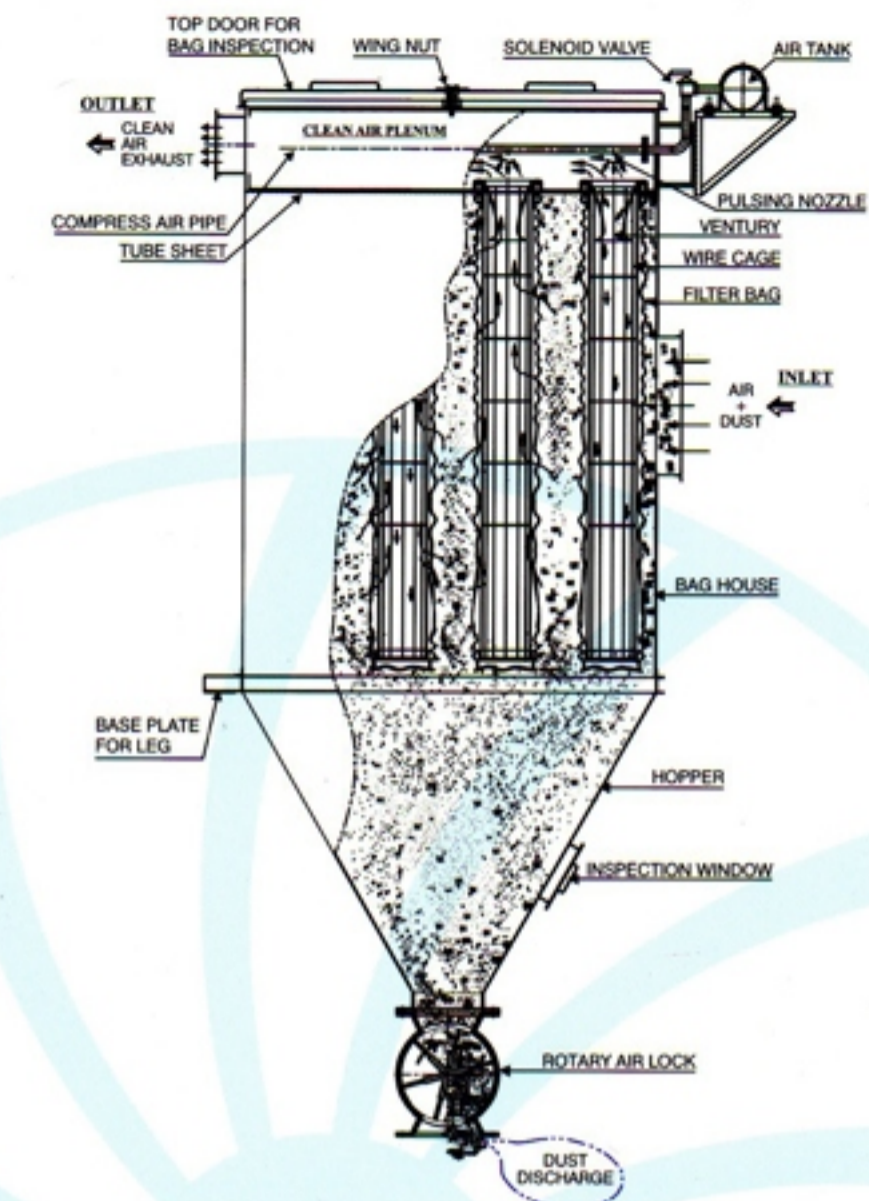
Clockwise direction of rotation viewed from suction end.

*Laxmi* is technologically & principally committed to pollution control to minimize environmental hazards. People are gradually awakening to the need to tackle after affects of industrial pollution with the need voluntarily addressed in international standards like ISO 14000. This still is insufficient as pollution control has been viewed as a dead investment eating away the profit margins & its returns in terms of reduced absenteeism & higher productivity are grossly overlooked.

More & More customers are availing of ISO 14000 & coaxing their suppliers to adopt the same to fulfill their social responsibility. It is a matter of time after which this standard will be a mandatory part of the industry.

Pollution control is an customized affair which involves feasibility study, problem analysis & design of a cost efficient & sturdy system with minimum requirement of maintenance. This calls for experienced engineers & resources to ensure smooth custom designed solutions right from fabrication, installation & commissioning. We at

*Laxmi* offer you a single source to nullify your environmental pollution woes.



## MAJOR EFFECTS OF POLLUTIONS

Deposition of solid particles, grit & coarse dust full relatively close to the chimney whilst fine dust and smoke are more widely dispersed. Deposition of tarry liquids and tarry smoke. Blackening of buildings and clothes by smoke & soot. e.g. Taj Mahal. Health problems like cancer, silicosis, filorosis due to inhalation of harmful gases. Damage to plants, particulars matter, animals & crops.



## FILTER BAG

It is available in multitude of types, they are selected on basis of application but are generally used to segregate smoke & dust particles resulting in air filtration.



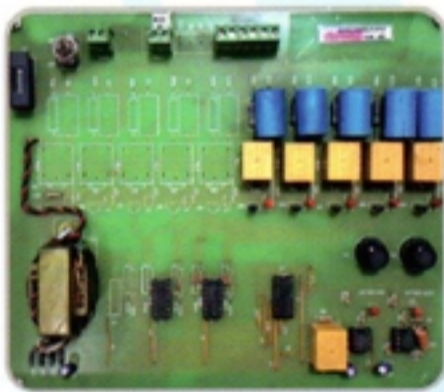
## VENTURY & CAGE

Snap Type Unique design to facilitate quick removal of bags from top clean in Plenum. Available in various materials of construction.



## SOLENOID VALVE

Diaphragm Solenoid Valve Assembly. Compact and reliable design eliminating flexible tube and reducing maintenance costs. Available in flame proof enclosures also.



## SEQUENCE TIMER

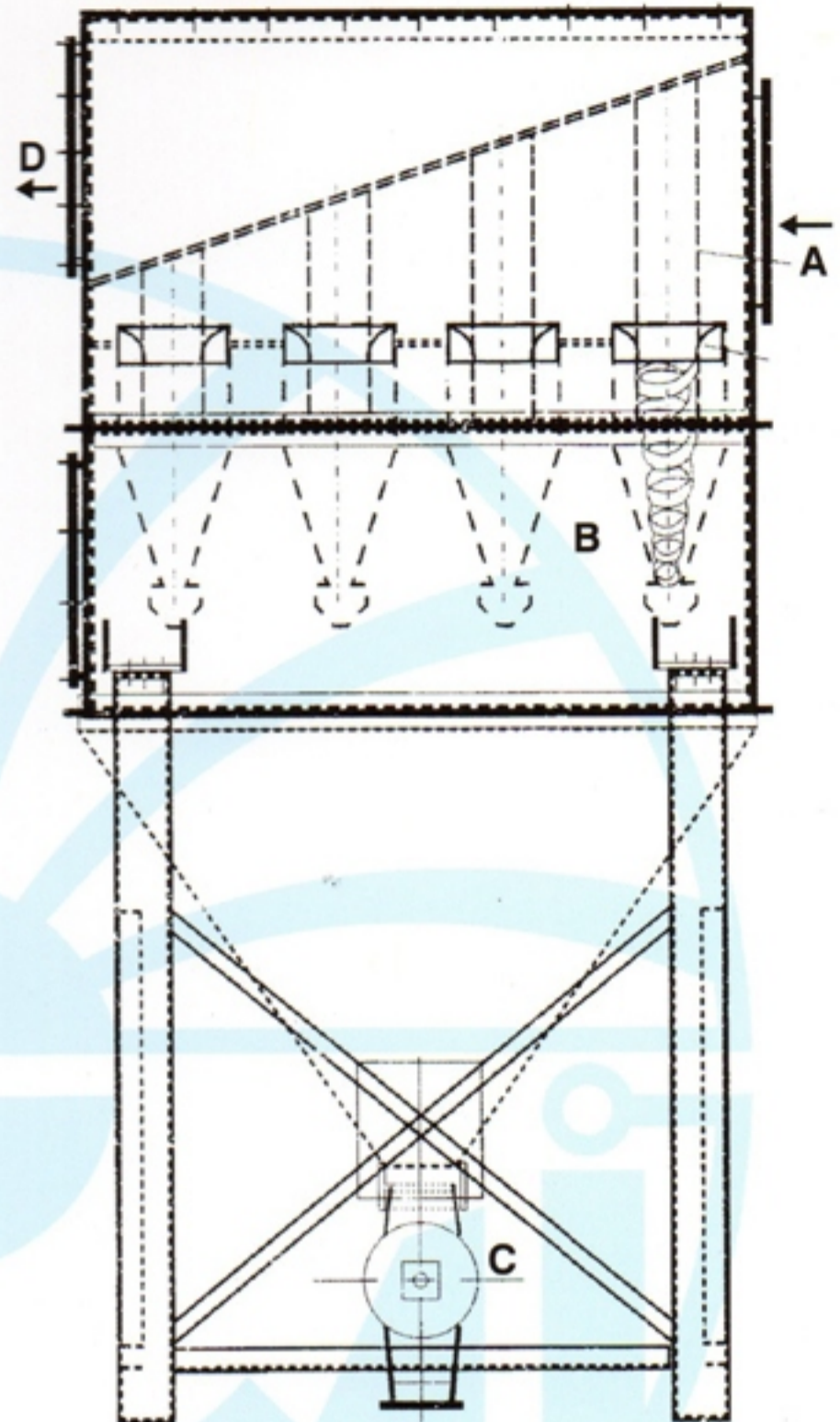
Laxmi make Solid state timer compatible to IP 55 codes with adjustable pulse duration and interval. Suitable for 110V / 230V AC. Available in flame proof enclosures also.



## ROTARY AIRLOCK

Consist of a cylindrical housing advanced Rotor and a drive. Rotor fits snugly into the housing minimizing gas leakage while effectively discharging the material. Available in various material of construction.

## MULTI CLONE FLY ASH COLLECTOR



- A - Air Inlet from Boiler/Thermopak
- B - Air Circulation
- C - Dust Collection
- D - Air Outlet Exhaust - Chimney

**Efficiency :** For particle size greater than 20 microns, efficiency is from 90% to 95% pressure drops 65mm wg. across the equipment.

### Special Features :

1. Inlet centrifugal blower gives maximum cyclonic effect.
2. Inspection doors for easy access for maintenance.
3. Heavy duty construction.
4. Provision for waste spray and screw conveyer.
5. Effective separation of inlet / outlet gases.
6. Fitted with rotary valve for continuous operation.

**Application of Cyclopacs :** Sugar Factories, Paper Mills, Steel Mills, Steam Boilers, Wood & Paper Board, Drying Kilns.

Pulse Jet Bag Filter

