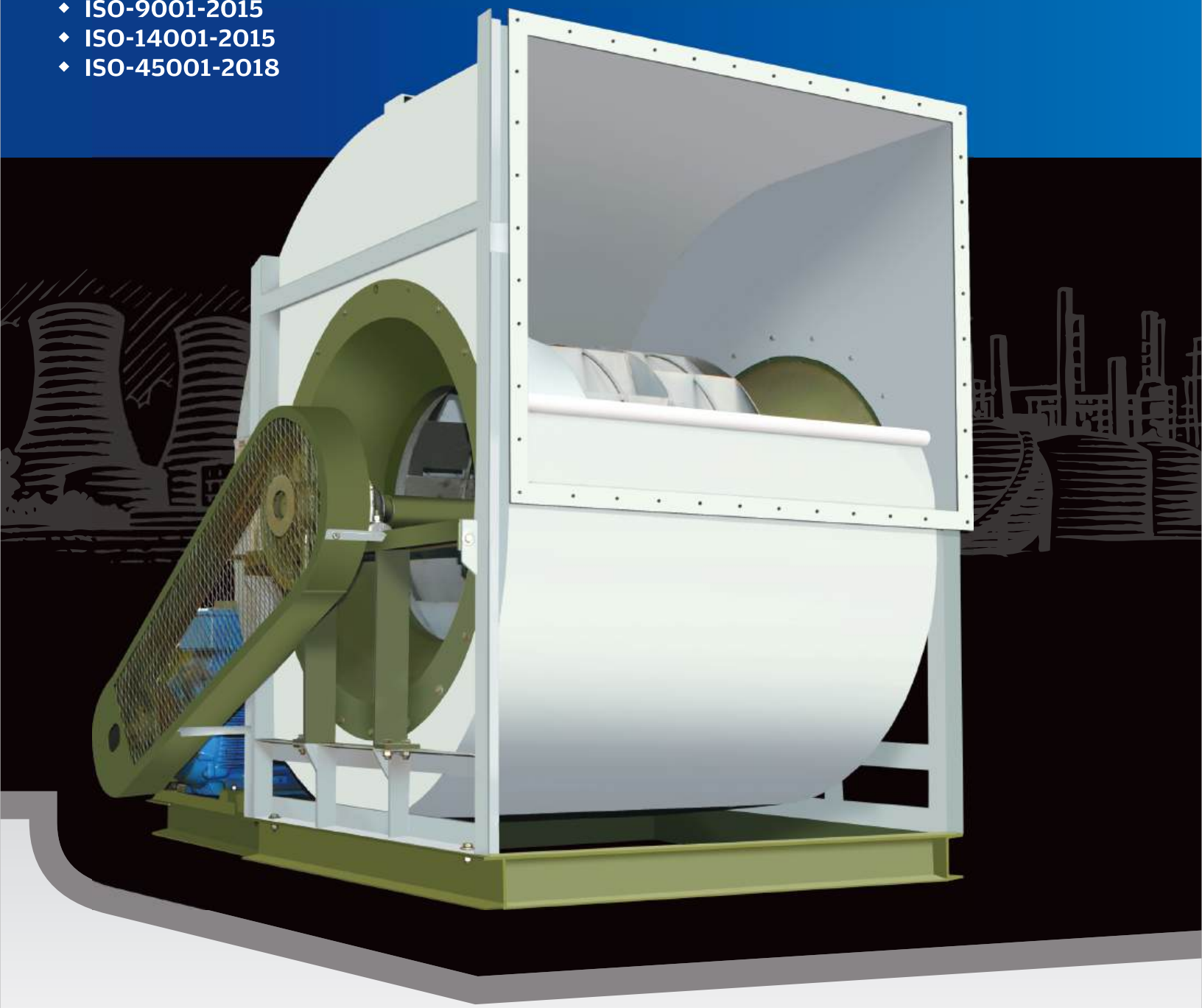
CE

www.**patelsairflow**.com

- ISO-9001-2015
- ISO-14001-2015
- ISO-45001-2018



TO FILL VIRTUALLY ANY NEED...
FOR CONTROLLED ENVIRONMENT
IN COMFORT, INDUSTRIAL,
OIL & GAS SECTOR

PAF

PATELS AIRFLOW LIMITED

industrial fans & blowers

COST **EFFECTIVE**

ENERGY EFFICIENT

PAF is leading manufacturer of a complete line of fans, Low, Medium, high pressure blowers for wide range of air and gas application. We serve many air & pressure application in the Power Plant, Refinery, Oil and Gas Sector, Water Treatment Plant, Chemical, Petrochemical, Pharmaceutical Lab, Hospitals & various Industries.

PRINCIPLES

- Latest state of engineering
- Particular dependability by optimum design & careful manufacturing
- Long life at low service cost
- Confirming to high standard quality

STANDARD FEATURES

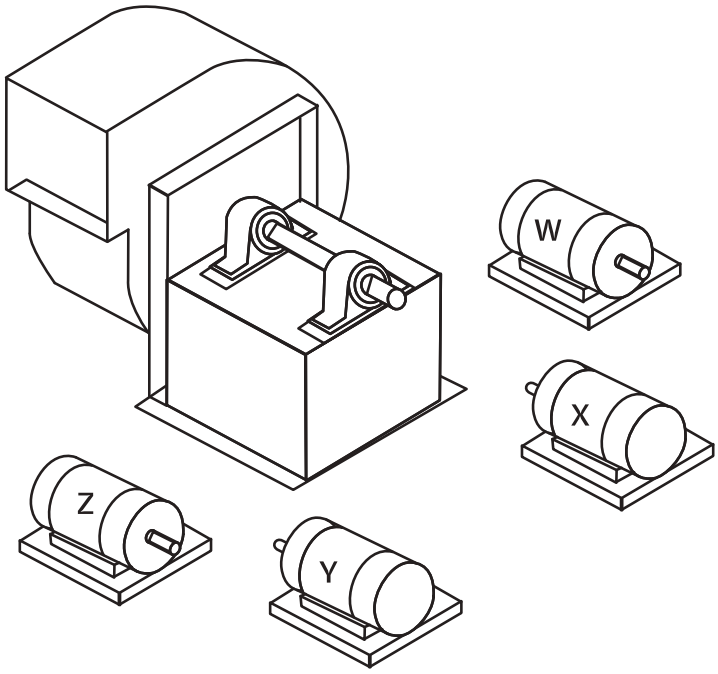
- Inlet and outlet flanges
- Bolted inlet plate for easy removal of impeller
- Rugged, Heavy duty structure for bearing & motor base to minimise vibration
- Continuous welded heavy duty housing
- V-belt drive set with belt guard
- Common base frame for fan and motor
- Flexible coupling with guard for arrangement - 8

OPTIONAL FEATURES

- Stainless Steel or other special metal construction like Aluminum, Titanium, Hastelloy, Inconel
- Stuffing box or mechanical seal for gas tight construction
- Spark proof and high temperature construction
- Drain connection with plug, Inspection door & Split casing
- Special lining of epoxy, FRP, PP or Rubber for chemical application and also spray galvanising
- Noise Attenuators or Silencers for special acoustic requirements
- Flexible canvass connection, Metallic Bellows
- Outlet and inlet dampers
- Variable inlet vanes for efficient control
- Vibration isolators

ROTATION AND DISCHARGE : (LOOKING FROM DRIVE END)

MOTOR POSITION - BELT DRIVE



Location of motor is determined by facing the drive side of fan and designating the position by letters W. X. Y. or Z. case may be.

HOUSING AND INLET BOXES STANDARD FEATURES

- Housing and inlet boxes designed for peak fan pressure at cold start up conditions
- All plate welded construction, in a variety of materials from carbon steels and stainless alloys to FRP
- Structural steel bracing, stitch welded to outside of housing
- Bolted and gasketed splits for removal of wheel and shaft assembly
- Drains located at low point of housing and inlet boxes
- Access doors or ports provided on housing and inlet boxes where applicable

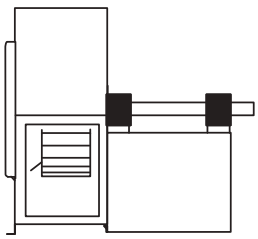
PEDESTALS

PAF offers six variations of the standard AMCA arrangements. These subtle variations are denoted as follows :

- Integral steel pedestals
- Integral steel pedestals with channel sub-base
- Semi-isolated integral steel pedestals (for high temperature applications)
- Independent steel pedestals mounted on concrete piers
- Integral steel pedestals with centre-line supported housing
- Independent steel pedestal mounted on concrete piers. centre-line supported housing

FAN ARRANGEMENT

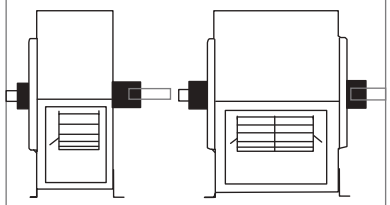
SW - Single Width **DW - Double Width**
SI - Single Inlet **DI - Double Inlet**



Arrangement-1 SWSI

ARRANGEMENT - 1 SWSI

Impeller is mounted on one end of the shaft while the shaft will be supported on 2 Nos. bearings. Fan will be driven through V-Belt.

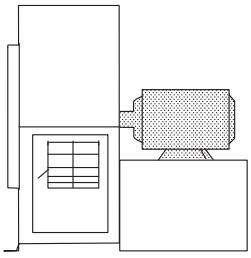


Arrangement-3 SWSI

Arrangement-3 DWDI

ARRANGEMENT - 3 SWSI DWDI

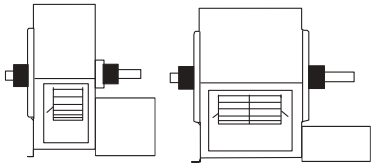
Impeller is mounted on the shaft between 2 Nos. bearing. Fan will be driven through V-Belt.



Arrangement-4 SWSI

ARRANGEMENT - 4 SWSI

Impeller is directly mounted on the motor shaft.

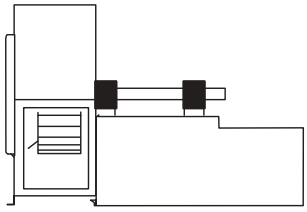


Arrangement-7 SWSI

Arrangement-7 DWDI

ARRANGEMENT - 7 SWSI DWDI

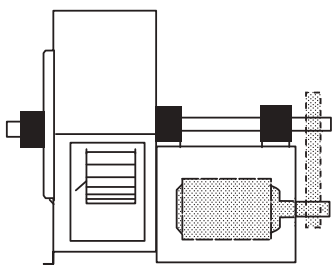
Impeller is mounted on the shaft between 2 Nos. bearing. Bearings and Motor will be mounted on common base connected through Flexible Coupling.



Arrangement-8 SWSI

ARRANGEMENT - 8 SWSI

Impeller is mounted on one end of the shaft while the shaft will be supported on 2 Nos. bearings. Bearings & Motor will be mounted on common base connected through Flexible Coupling.



Arrangement-9 SWSI

ARRANGEMENT - 9 SWSI

Impeller is mounted on one end of the shaft while the shaft will be supported on 2 Nos. bearings. Fan will be driven through V-Belt

CENTRIFUGAL **FANS**

BEARINGS

- Anti-friction self-aligning ball or spherical roller bearings. Grease or oil bath lubricated as required. Minimum L10 life of 50,000 hours.
- Where high radial and axial loads require, Dodge or equivalent sleeve oil bearings are used.
- Bearing accessories include thermocouples, RTDs, vibration probes & circulating oil lubrication if called for

COUPLINGS

- Where applicable, flexible gear type couplings are provided
- Other flexible couplings are provided as specified, including steel grid, disc pack & flexible rubber element.
- All couplings are selected with a minimum 2.5 service factor

SHAFT

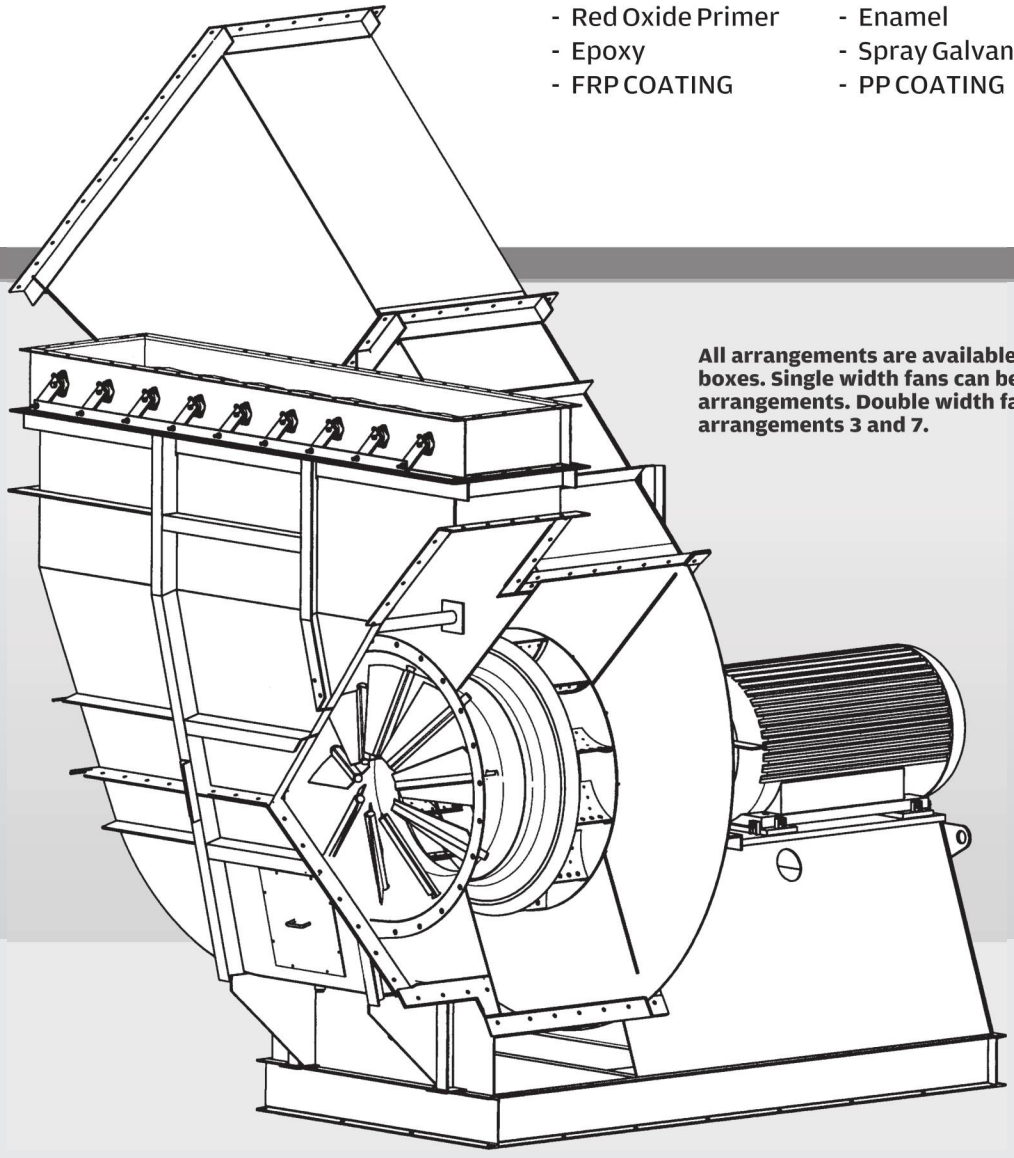
- C-1030/1040/1045 alloy steel shaft, or special stainless alloy, depending upon the application. Where strength of materials is limited and corrosion protection is required, carbon steel shafts are clad with corrosion resistant alloys
- Shaft designed for a first critical speed ratio of 1.25 minimum

ROTOR

- All plate fabricated, welded construction for durability
- All butt welds full penetration

PAINTING

- A variety of surface preparations are available, including:
  SSPC-SP 3, Machine Tool Prep
  SSPC-SP 6, Uniform Grey Blast
  SSPC-SP 10, Near White Blast
- And a variety of coatings such as;
  - Red Oxide Primer
  - Epoxy
  - FRP COATING
  - Enamel
  - Spray Galvanising
  - PP COATING



All arrangements are available with or without inlet boxes. Single width fans can be supplied in all arrangements. Double width fans can be supplied in arrangements 3 and 7.

SHAFT **SEALS**

SINGLE AND MULTIDISC LABYRINTH SEALS

- Standard shaft seal is a single disc
- Suitable where minor amounts of gas leakage, in or out of the fan, are permissible
- Multidisc designs used when a higher degree of sealing is required

MECHANICAL RING SEALS

- Used where gas leakage must be kept to a minimum
- Segmented Teflon or carbon rings are contained in a machined housing fabricated from carbon steel or corrosion resistant stainless alloys
- Rings are spring-loaded to provide positive contact with shaft surface and to maintain axial alignment

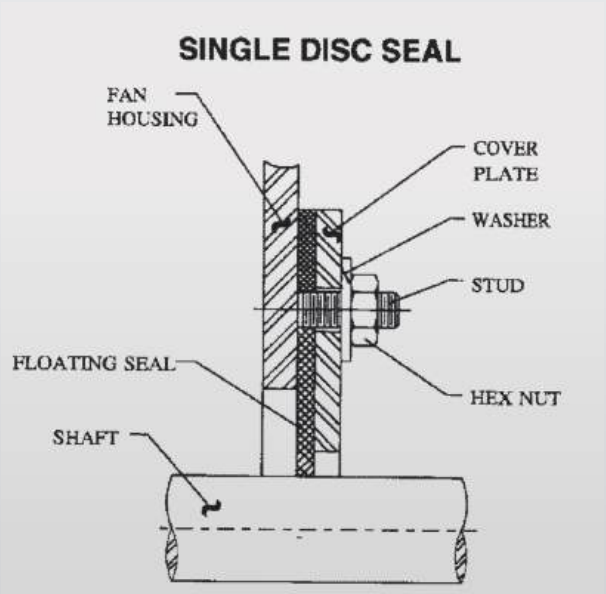
  Additional seals, including stuffing box seals are available for special applications

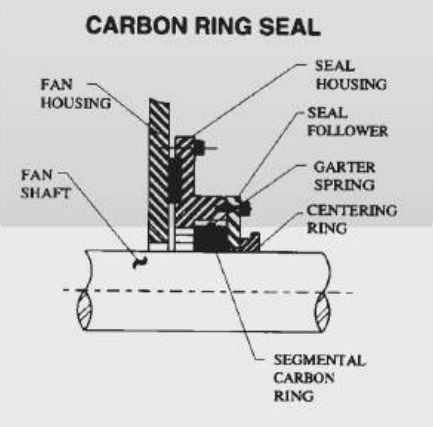
WEAR PROTECTION

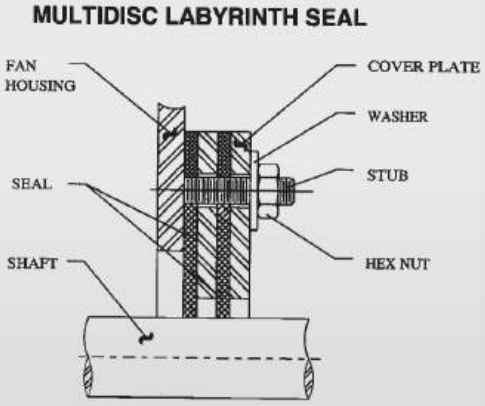
- In higher dust load applications, where excessive wear is a problem, PAF offers a variety of wear protection options

HOUSING PROTECTION

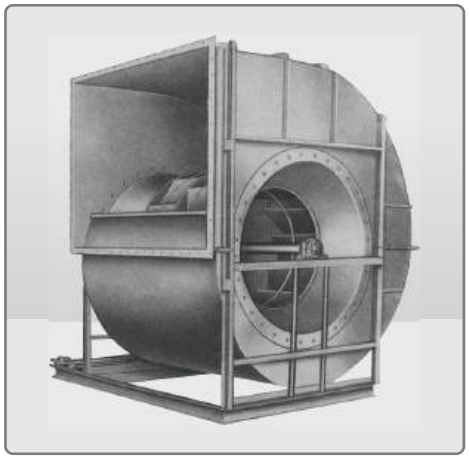
- Housing scroll fully lined, housing side plates partially lined with cheek plates
- Wear plates are fully replaceable, installed in plug
- welded, studded or bolted segments
- Inlet boxes and inlet cones may also be lined, depending upon the severity of the application
- All joints and corners are seal pass welded to prevent channeling of dust stream







CENTRIFUGAL **FANS**



BACKWARD INCLINED BLADES TYPE PB

Good efficiency with non overloading power characteristic

RANGE

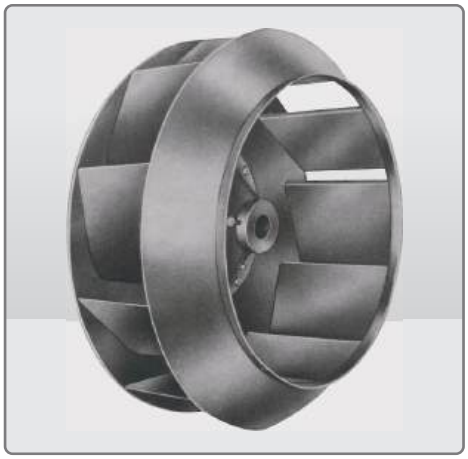
Capacity : 600 to 8,00,000 M^3/hr.
St. Pressure : Upto 250mm of wg.
Wheel dia : 200 to 2762 mm

FORWARD CURVED BLADES TYPE PF

Large amount of air volume at lower speed

RANGE

Capacity : 20 to 1,20,000 M^3/hr.
St. Pressure : Upto 250mm of wg.
Wheel dia : 25 to 927 mm



AIRFOIL BLADES TYPE PA

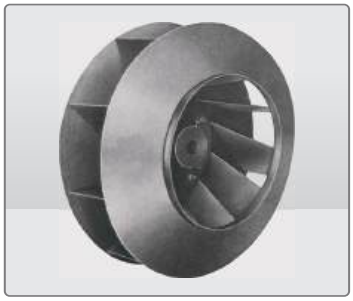
Highest efficiency with non-over-loading power characteristics

RANGE

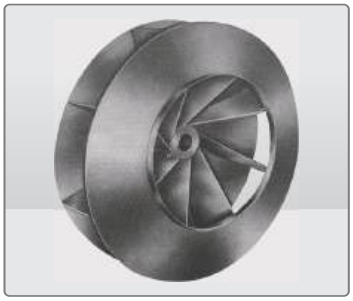
Capacity : 11,900 to 8,00,00 M^3/hr.
St. Pressure : Upto 1800 mm of wg.
Wheel dia : 500 to 2762 mm

INDUSTRIAL EXHAUSTERS : IMPELLER TYPE

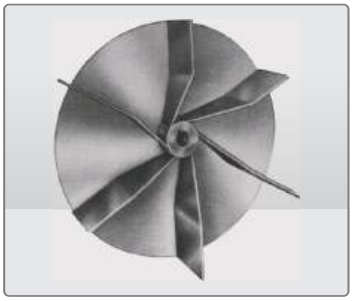
RANGE : Capacity : 450 TO 2,30,000 M3/hr. | St. Pressure Upto 500 mm of wg. | Wheel dia : 311 to 2648 mm



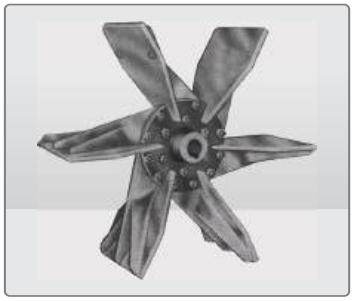
EX : Highest efficiency with backwardly inclined radial tip. Blades to handle air and fine dust particles etc.



EY : With radial blades to handle air or gas containing granular material.



EZ : Used for handling metal chips, wood shaving, fibres etc.



EW : With open type radial blades used to handle air with heavy and light dust

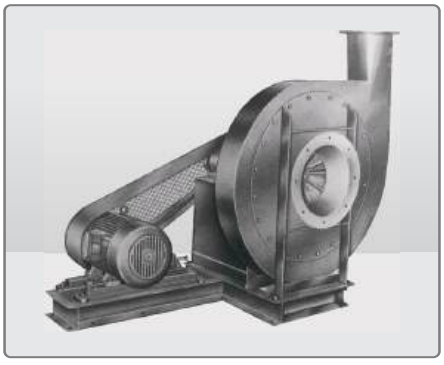
PRESSURE BLOWERS

TYPE - L.P., M.P. and H.P. Widely used in cupola blowing , Dust removal, Pneumatic conveying, Paper & textile drying, air, ejector, Liquid agitation, product cooling, combustion air, Ventilation, Fluid Bed Dryer FBD etc.

RANGE

Capacity : 100 to 1,80,000 M^3/hr.

St. Pressure : Upto 2000 mm of wg.



AXIAL FLOW **FANS**

ROOF VENTILATOR TYPE DH

Impeller cast aluminium axial or centrifugal

RANGE

Capacity : 1500 to 75,000 M^3/hr.
St. Pressure : Upto 25mm of wg.
Wheel dia : 305 to 1400 mm

TUBE AXIAL FAN TYPE TA

216 Cast Alluminium Impeller
226 Fabricated Impeller

RANGE

Capacity : 850 to 3,00,000 M^3/hr.
St. pressure : Upto 75mm of wg.
Wheel dia : 250 to 2000 mm

AIR SCREW FAN TYPE AS

Impeller cast aluminium alloy having adjustable blades

RANGE

Capacity : 850 to 3,00,000 M^3/hr.
St. pressure : Upto 70mm of wg.
Wheel dia : 250 to 2000 mm

BIFURCATED FAN TYPE BF

Impeller cast aluminium or centrifugal

RANGE

Capacity : 2000 to 70,000 M^3/hr. St.
pressure : Upto 25mm of wg.
Wheel dia : 305 to 1600 mm

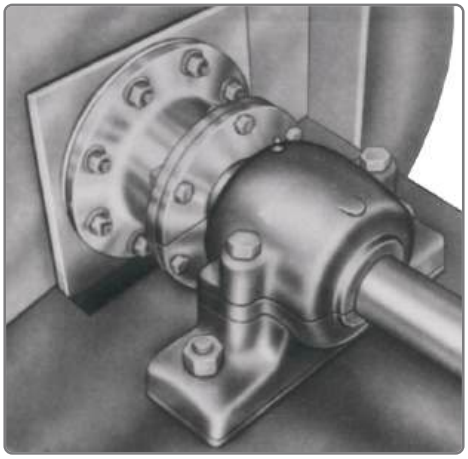
VANE AXIAL FAN TYPE 216 & 226

RANGE

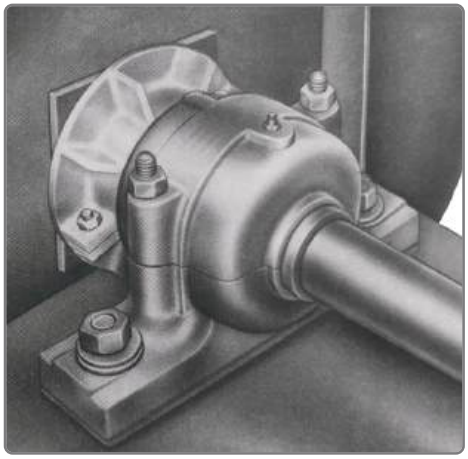
Capacity : 850 to 1,80,000 M^3/hr.
Wheel dia : 305 to 1600 mm

OPTIONAL FEATURES

P.P/FRP CONSTRUCTION



STUFFING BOX



COOLING DISC

TESTING STANDARD :

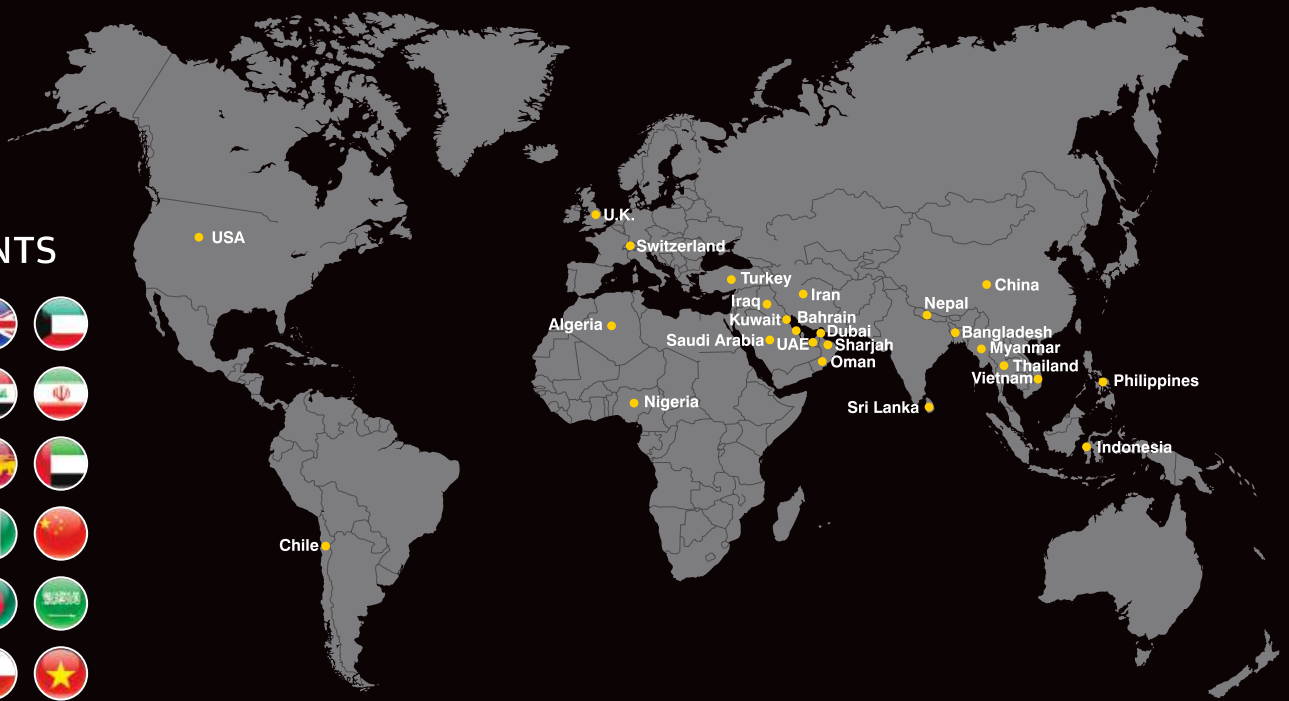
- CENTRIFUGAL FANS & BLOWERS : AS PER IS 4894, AMCA - 210, ISO - 5801 (BS - 848)
- AXIAL FLOW FANS : AS PER IS - 3588
- DYNAMIC BALANCING : AS PER ISO - 1940 (E) Gr. 6.3 & Gr. 2.5

DESIGN REFERENCE STANDARD

- AMCA - 801, 802
- API - 560
- API - 673
- ASTM
- ASME

SEGMENTS WE SERVE

GLOBAL FOOTPRINTS



OUR OTHER PRODUCTS

- Carbon Steel Seamless Tubes
- Stainless Steel Seamless Tubes

For more details visit : www.**paftube**.com

PAF

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