

Fitzpatrick Engineering

INDUSTRIAL FANS

Mining. Mineral. Agriculture

Air Moving & Ventilation Solutions

Supplying Worldwide



**All Equipment
Manufactured
Solely In-House in
Australia**

www.fitzeng.com.au

SUPPLYING WORLDWIDE Industrial Centrifugal Fans

Fitzpatrick (FIF) Designs a wide variety of Centrifugal fans & blowers; Designed & manufactured to suit all requirements from our Customers.

FIF Centrifugal Fans have one of seven types of wheels, normally mounted in a fan or blower housing. The air enters the housing inlet, turns to 90 degrees and is exhausted out of the housing discharge. Robust, Welded, M.S. Sheets and Plates, reinforced with angle iron frame, Suction side is provided with wire gauge. & our Blowers can be supplied with any type of outlet direction of rotation and discharge. Available in single and double stage, each type has been provided in many installations throughout the country.

**Centrifugal fans can be made single width single inlet (SWSI) or double width double inlet (DWDI).*

Straight Radial Blade Materials handling fans with open impellers

8 designs covering high to very low flow rates

Backwardly inclined aerofoil blade fans

6 designs covering high to very low flow rates

Backwardly inclined plate blade fans

3 designs covering high to medium flow rates

Curved plate, radial tip blade fans

5 designs covering high to very low flow rates

FIF will leave you feeling 110% satisfied with your completed project providing you with a fan of robust construction, assuring you of a long, reliable service life.

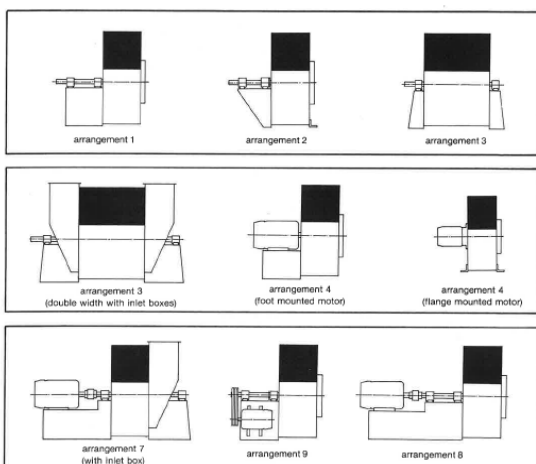
Other Benefits of the FIF Fans

FIF Employs Qualified engineers to assure you choose the right fan for your application with minimum supply lead time & best in class performance.

What a casual inspection will not reveal is the leading technology behind the fan's design and manufacture. Our centrifugal fans are engineered to operate with high aerodynamic efficiency, smooth running low vibration/noise levels & a compact, low profile footprint.

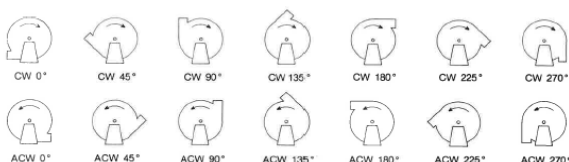
There has been a long felt need for high efficiency, trouble-free, high speed Blowers and this has been achieved successfully with FIF's Design flexibility which encompasses a wide variety of drive arrangements; drivers including electric, combustion, turbine, pneumatic and gearbox.

FAN ARRANGEMENTS



FAN ROTATION & DISCHARGE POSITIONS

Direction of rotation is determined when looking from the drive side. Discharge position is measured from the bottom horizontal position which is taken as zero degrees.



Straight Radial Blade Materials Handling Fans

➔ Medium Flow Rates, Medium to high Pressures, Abrasive dust loads

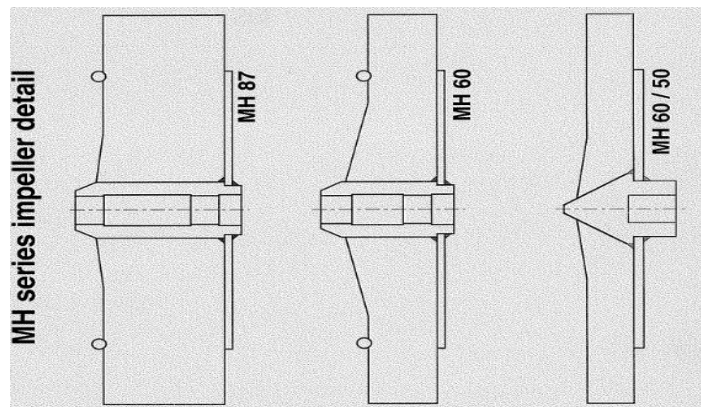
RM SERIES

The RM Fan Series is intended for applications where a heavy abrasive or sticky dust load must pass through the fan. The RM & RMH fans have six bladed open impellers with stiffening webs between the blades. The fans are used for conveying abrasive dusts, granular material & exhausting from wet dust collectors. The RM fan Series is heavily built to withstand the effect of abrasive wear more readily than most commercially available materials handling fan.

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MH SERIES

The MH Series have straight radial blades & are used on applications where dust or material has to pass through the fan. MH Series fans are the most resistant to material build-up of any centrifugal fan type. All of the MH series fans are lower flow rate designs compared to the general purpose RM & RMH materials handling fans. Pressures to 20 kPa Peak static efficiencies typically 63%



RM high flow rate standard designs for 5 kPa	MH87 medium flow rate
RMH high flow rate standard designs for 10 kPa	MH60 low flow rate
RMB high flow rate with backplate for handling stringy material	MH60/50 low flow rate
RMR high flow rate rimmed impeller for sawdust	MH60/15 very low flow rate
RMA (Clean Air version of RM Fans)	



49 RMR Materials Handling Fan 355 kW Oberon NSW



630 mm MH60 15 low flow rate materials handling fan

SUPPLYING WORLDWIDE

H series Single & Multi Stage Blowers



Low Flow Rate, Volume, High Pressure, Clean air applications

H Series

Design pressures range from 2 to 18kPa for single stage units, 50kPa for multi stage units. Most units operate at 2900Rpm direct driven by 2 pole motors & can be used for blowing or exhaust applications. Commonly used for Coal washery Jig blowers, flotation cells, air slides, vacuum dewatering, combustion air, process air. H series blowers are designed for clean air, for operation in extremely dusty conditions, inlet filters should be used.

Dampers



Design temperatures to 500 C, Design pressure to 50 kPa

Single & Mutli-Blade

Dampers manufactured for a wide range of applications. These come in single & Multi blade, Circular, butterfly dampers, parallel & opposed blade rectangular dampers. Most commonly used for gas & air in wet & dry environments. The dampers are designed to open once the temperature rises to a specified rate & is available with a huge range of accessories & options. These are generally manually or actuated operated & have several types of blade seals.

Installation & supervisors are available on request

Backward Curved Blades

can be used with gases containing moderate amounts of erosive particles. Often used in high-pressure applications where high temperatures are required.

Forward Curved Blades

Reduces potential dust build-up on the underside of the blades in applications with moderate amounts of gas-borne dust. It offers medium efficiencies. The design is more compact than air foil, backward curved or backward inclined fans.

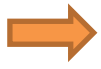
Radial Blades

The flat blades of this type are arranged in a radial pattern, forming a rotor which is essentially a large paddle wheel. This design results in a relatively inefficient fan with power consumption higher than that using the much more common backward inclined blade. These rugged fans offer high pressure capability with average efficiency. The housing design is compact to minimize the floor space requirement.

Fitzpatrick have a huge range of spare parts, accessories & options available these include silencers, inlet boxes, actuators etc. These products are designed to improve your fans performance & comply with your specifications.

Please visit our website www.fitzeng.com.au for more detail on our products or call us on 4677 1220 to speak with one of our staff members.

Backwardly Inclined Plate Blade Fans



High Flow Rates, Low to Medium Pressure, Clean Air Applications

52 SERIES / CENTRAX

Designed to handle large volumes of relatively clean air, commonly used for industrial air supply and exhaust applications. Capable of coping with non-sticky abrasive dust loads & has an efficient strong shape; this design is a cost-effective alternative to the backward curved design but with flat plate blades instead of curved. This results in a slightly lower efficiency, compensated by the easier fitting of liners.

52 SERIES Medium Flow Rate pressure up to 6 kPa (Flat Plate Blade)

54 SERIES Pressure to 10kPa (Aerofoil Blade)

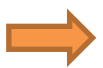
55 SERIES High Flow Rate Pressures to 5kPa (Flat Plate Blade)

CENTRAX (Inline Centrifugal Fan) 2 Drive options, 3 impeller types



Model 5581, Port Kembla, NSW
backwardly inclined plate blade fan
250 kW, 2,051mm diameter

Radial Tip Blade Fans, Curved Plate



Medium Flow Rates, Medium to High Pressure, Light Abrasive Dust

60 SERIES

Superior erosion resistance & dust handling ability compared to backwardly inclined blade fans. Available in 3 different types of impeller blades as described on page 6.

69 SERIES high flow rate pressure to 12 kPa

64 SERIES medium flow rate pressures to 16 kPa

63 SERIES low flow rate pressures to 18 kPa

N63 SERIES low flow rate pressures to 20 kPa

NX63 SERIES very low flow rate pressures to 20 kPa



6954 radial tip blade fan 440 kW West Java, Indonesia



6998 radial tip blade fan Port Kembla NSW



Axial Flow Fans

These industrial fans are ideal for exhausting applications where compact installations are required and where straight through flow is desired. Cooling Towers, Air-Cooled Condensers and Air Cooled Heat Exchangers are typical applications. The standard range models are fitted with glass reinforced polypropylene impellers having 2 or more blades to draw the air through a section of ductwork or a flat wall panel and are direct driven.



2,300 mm adjustable pitch axial flow fan with inlet box, 990 rpm, 400 kW

Backwardly Inclined Aerofoil Blade Fans

Medium Flow Rates, High Pressure, Clean Air Applications

RA Series

54 series (Aerofoil Blade)

Peak total efficiencies from 86% to 76%.

The backward inclined aerofoil fans are commonly used for a wide range of applications in many industries. Fans with hollow, Airfoil-profiled blades are designed for use in air streams where high efficiency and quiet operation are required.

They are used extensively for continuous service at ambient and elevated temperatures in forced and induced draft applications in the metals, chemical, power generation, paper, rock products, glass, resource recovery, incineration and other industries throughout the world.

High flow rate standard designs to 12 kPa. A versatile Fan design That can be used for both direct drive & vee belt drive applications for moving clean air & light non sticky dust loads, Pressures to 10kPa, Non overloading power characteristic & 85% Peak static efficiency.

RA 146 SERIES medium flow rate pressures to 18 kPa
RA 136 SERIES medium flow rate pressures to 18 kPa
RA 82 SERIES low flow rate pressures to 20 kPa
RA 79 SERIES low flow rate pressures to 22 kPa
RA 66 SERIES High Flow Rates, Clean Air Applications



3,250 mm aerofoil blade RA 82 fan 1,100 kW