

Fibreglass Fans

For Handling Corrosive Gases

Jan 04



ARMATEC

PRODUCT DESCRIPTION

Range of high quality, low noise, low maintenance and corrosion resistant centrifugal fibreglass fans includes:

High Efficiency CLUB Fans: CLUB fans have special backward curved blades giving high efficiencies of 70% to 80%. This means reduced running costs compared to alternative fans. Pressure to 350mm WC (water column). Flows from 0.3 m³/s to 34m³/s.

Self Cleaning CMHP Fans: CMHP fans have standard "paddle wheel" radial bladed impellers. These impellers are self cleaning to a high degree and have a long history of successful operation. Pressures to 400mm WC. Flows from 0.1m³/s to 42m³/s.

High Pressure CH & CHP Fans: CH/CHP fans are for pressures to 760mm WC. These are used with venturi scrubbers or in other high pressure drop systems. Flows from 0.02m³/s to 24m³/s.

BENEFITS

Corrosion Resistant

ARMATEC Fibreglass Fans are ideal when the airstream to be handled contains corrosion gases, eg. hydrogen sulphide, chlorine, acids etc. All fan parts that are in contact with the airstream are corrosion proof FRP construction. Fan shaft is 316 stainless steel. The metal base of the fan is either stainless steel or mild steel coated with ARMATEC's high performance Flakeline premium flake filled high build epoxy corrosion resistant coating.

Low Maintenance

The fibreglass fans construction means low maintenance and longer life. Bearings are selected for long life in arduous conditions. Typical running speeds for fans are lower than comparable metal fans. Impellers are dynamically balanced to exacting standards. One site reports that in 10 years service a ARMATEC CMHP fan "has never been touched" other than to change bearings and belts

Low Noise

ARMATEC Fibreglass Fans have low noise characteristics when compared with equivalent metal fans as the fibreglass fan housing absorbs noise and fan speeds are typically lower. The high efficiency range of CLUB fans are particularly low noise. Further acoustic insulation and silencers are available on request to meet even the lowest noise specification. Typical noise levels at 10m are 60dBA to 65dBA.

USES

- Waste water treatment plants for sulphide gases
- Pulp and paper plants for chlorine gases
- Rendering plants odours
- Metal finishing plant fumes
- Fertiliser plants for fluoride fumes
- Chemical plants with corrosive fumes
- Acid gases
- Incinerator gases after quenching
- Swimming pool ventilation air
- Gas streams after a wet scrubber

AVAILABILITY

ARMATEC Fibreglass Fans are manufactured by ARMATEC in New Zealand under licence to Ceilcote Air Pollution Control of the USA. Typical lead times for manufacture are 4 to 8 weeks.



Fan for handling fluoride fumes at fertiliser works.

ARMATEC Environmental Ltd

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FEATURES

Certified Performance Data

Full performance data is available for all fans. This data has been obtained from tests conducted by Ceilcote Air Pollution Control of the USA in accordance with standards published by the AMCA (Air Movement and Control Association Inc of USA) and are licences to bear the AMCA seal. Ratings are based on tests made in accordance with AMCA Standard 211 and comply with the requirements of the AMCA Ratings Program.

Corrosion Resistant Construction

Fibreglass fans are constructed by the contact moulded method for maximum chemical resistance. The exterior finish is a pigmented resin coat with off-white being the most popular colour. All fibreglass is fabricated to international fibreglass standard AS 2634-1983 for chemical plant equipment.

Quality of Construction

ARMATEC personnel who build the fans are qualified trades people with many years of experience in the using of fibreglass as a construction material. They take great pride in their work. At all times high quality and accuracy of workmanship is assured. ARMATEC is ISO 9001 accredited with BVQI as the supervising auditors, thus assuring clients of consistent high quality products.

Better Design

All designs are done by Ceilcote Air Pollution Control of the USA. The designs are based on more than 25 years of experience of building thousands of fibreglass fans. They have led the development of fibreglass fans in the USA and have applied knowledge of fibreglass based on over 35 years of experience.

Range of FRP Materials

The full range of high quality industrial grade resins are available for use in fan construction. The range includes isophthalic polyester, vinyl ester and fire retardant resins. Finishes with glass or synthetic tissue are available.

Zero Fan Blade Failure

ARMATEC has zero incidence of fan blades detaching from operational fans. The first ARMATEC fan was manufactured in New Zealand in 1983 and since then over 30 units have been supplied. The zero incidence of fan blades detaching is due to proven design, more knowledge of the limitations of impellers, and to superior quality of construction.

Warranty

Standard warranty is 12 months on materials and workmanship on all fans.

Dynamically Balanced

All impellers are dynamically balanced using certified balancing equipment.

Arrangement Versatility

Fans are available in clockwise or counter-clockwise rotation. The discharge position can be either of 8 positions such as top horizontal, top angular down, downblast, bottom angular down, top angular up, upblast, bottom angular up and bottom horizontal. This allows maximum versatility in selecting the fan for your site. Fan inlet and outlet ducts can be plain or flanged.

Belt Driven as Standard

Belt driven allows for the air flow rate and/or differential pressure to be varied simply by changing pulleys and belts. Vee belt drives and belt guards are standard. Direct drive designs are available on request.

Fans Test Run Before Dispatch

All fans are test run before dispatch to ensure proper assembly, alignment and balancing. The exact operational speed of the impeller is checked.

Many Standard Features

A big range of standard features include an access door and drain, and a full operating and maintenance manual.

Leading Suppliers of Industrial FRP

ARMATEC is a leader in supplying high quality industrial grade fibreglass fabrications for New Zealand industry. Local and international engineering companies have inspected ARMATEC's facilities and products and have all expressed complete satisfaction.



Fibreglass after scrubber at particle board plant

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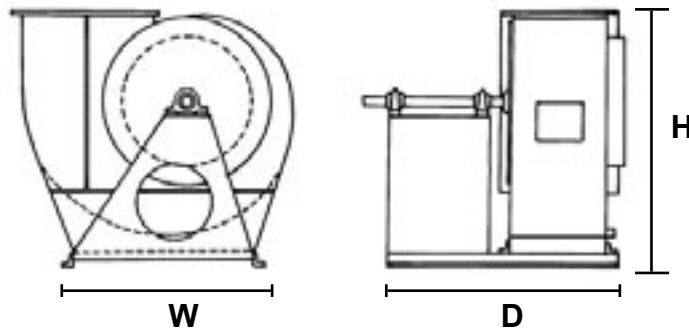
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Fan Details for Standard Model:

Arrangement 9 ... for larger sized fans



Width W =	Depth D =	Height H =	Weight =	Duct Diam =
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Materials of Construction

Impellor:	Casing:	Base:	Shaft:
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Impellor Styles:



Paddle wheel impellor



Backward curved impellor



Forward curved impellor

Discharge Options:

<p>CW CCW</p> <p>Up Blast</p>	<p>CW CCW</p> <p>Top Horizontal</p>	<p>CW CCW</p> <p>Top Angular Up</p>	<p>CW CCW</p> <p>Bottom Angular Up</p>
<p>CW CCW</p> <p>Down Blast</p>	<p>CW CCW</p> <p>Bottom Horizontal</p>	<p>CW CCW</p> <p>Bottom Angular Down</p>	<p>CW CCW</p> <p>Top Angular Down</p>

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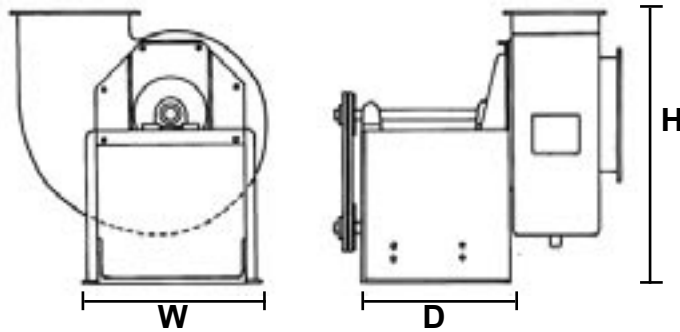
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ARMATEC

Fan Details for Standard Model:

Arrangement 10 ... for smaller sized fans



Width W =	Depth D =	Height H =	Weight =	Duct Diam =
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Materials of Construction

Impellor:	Casing:	Base:	Shaft:
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Impellor Styles:



Paddle wheel impellor



Backward curved impellor



Forward curved impellor

Discharge Options:

<p>Up Blast</p>	<p>Top Horizontal</p>	<p>Top Angular Up</p>	<p>Bottom Angular Up</p>
<p>Down Blast</p>	<p>Bottom Horizontal</p>	<p>Bottom Angular Down</p>	<p>Top Angular Down</p>

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