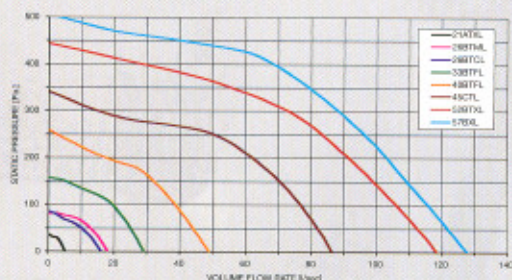
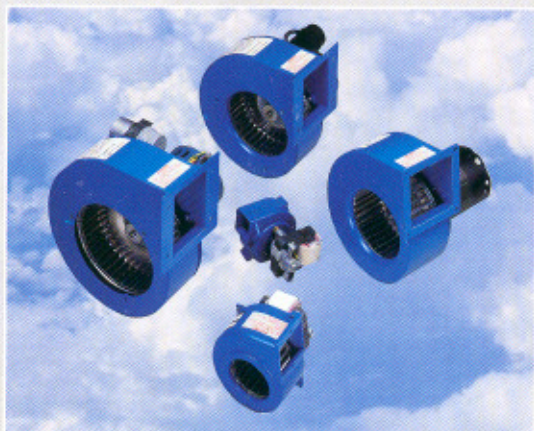


Centrifugal Fans and Blowers



AIRFLOW™

SPECIALISTS IN AIR MOVEMENT
TECHNOLOGY SINCE 1955



Single Inlet

This range of fans has been developed to provide reasonable volumes of air against resistances to flow greater than can be achieved from small tube axial fans.

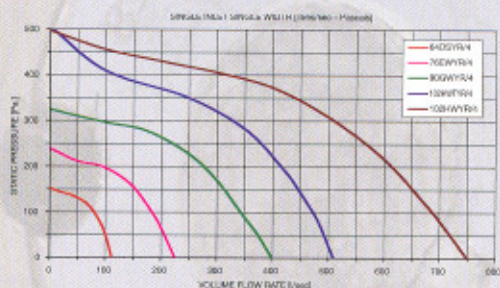
Compact overall dimensions have been achieved using forward curved, centrifugal impellers and two-pole (typical 2800 rev/min) motors.

The range has several fans covering flow rates from 2.8 litres/s (6ft³/min) to 130 litres/s (275ft³/min) and static pressures up to 500 Pa (2 in.w.g) for the largest unit.

The models 21ATXL, 26BTCL and 26BTML are very small units particularly suitable where highly localised cooling and ventilation is required. Typical applications include heat sink cooling, vending machine ventilation, combustion air supply on domestic boilers and cool air circulation in refrigerated display cabinets.

The 33BTFL, 40BTFL and 45CTL give very good flow rates for their size, the 45CTL giving over 82 litres/s (175ft³/min) at free discharge from a 117mm (4.58 in.) dia. impeller.

The 40BTFL has been very popular in many variations for supplying combustion air for domestic and commercial gas fired units, and one special variant has actually been used for gas/air mixing in some cases. The 45CTL has been used in hand driers and the cooling of switchgear and servomotors. The 52BTXL and 57BXL are powerful units capable of relatively high pressure development and high outlet velocities. These attributes make them particularly suitable for special applications including materials handling, small clean air benches and tunnel ovens.



Single Inlet single width

The need for small powerful fans mounted in confined spaces such as ceiling voids led Airflow to develop this range of fans.

They are effectively "half" of a conventional double inlet double width fan which allows for both vertical & horizontal mounting.

The powerful 1400 rev/min. motors are resiliently mounted in the inlet of the fan and can be speed controlled to match fan performance to actual demand.

The range, comprising five models offers flow rates between 50 & 750 litres/s. (105 & 1590ft³/min) and useful pressure development up to 450Pa. (1.8 in.wg.) for the largest size.

Airflow Developments Group of Companies

AIRFLOW Developments Ltd. is a private British company established in 1955 from one man's expertise in the fields of fan design and air flow measurement. The company was founded in, and is still based in, High Wycombe, England. Since its inception the company has blossomed into a thriving multi million pound international manufacturing and research group, with subsidiaries in Germany and the Czech Republic, supported by an extensive world wide distribution network. With the wealth of knowledge gained from over 50 years research, design and manufacturing experience AIRFLOW is widely regarded as a WORLD LEADER in Air Movement technology.

Airflow's commitment to providing our customers with top quality products backed by technical expertise and a first class service, is supported by the company's policy of manufacturing to internationally recognised standards of Quality Assurance and membership of relevant professional organisations. We at AIRFLOW do not just view our customers as short-term business but as ongoing business partnerships, as is underlined by our client list of internationally renowned companies.

Airflow Centrifugal Fans and Blowers

Airflow have been producing high quality air moving equipment for fifty years. During this period, they have been in the forefront in developing new techniques and advanced designs. Today, the results of this sustained effort can be clearly seen in the variety and quality of products available for many types of air movement applications.

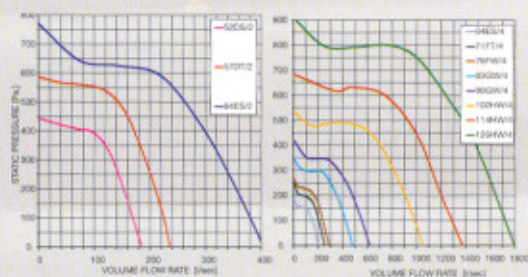
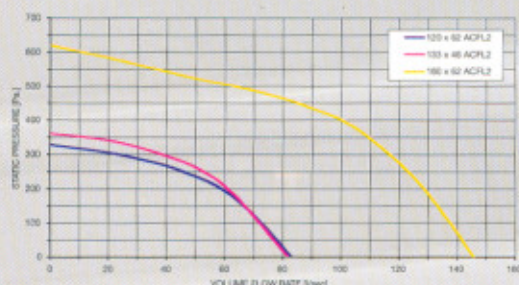
The more popular models are available ex-stock direct from Airflow, or through our dealer network. Others are made to order, some with minimum order quantity criteria. Variants on the standard range can be made to meet specific needs for customers ordering large quantities.

Our air movement specialists have considerable expertise which is freely available to you. If you wish to discuss a particular application, we are only a telephone or e-mail call away.

Airflow Commitment

Airflow Developments has been at the forefront of maintaining high standards in the fan industry with respect to the quality of its products and the testing of those products. Improvements of these aspects in the Fan Industry is continuing and to this end wherever possible this leaflet incorporates the latest recommendations. Fans are tested to BS848: 1997/ISO 5801: 1997 and the terminology used is generally in line with BS5643 1984 "Refrigeration, Heating, Ventilating and Air Conditioning terms" and Eurovent document 1/1. Airflow Developments is a Registered Firm in respect of ISO 9001 for its quality management system.





ACF Compact

This range is a family of quiet, high performance centrifugal fans designed with ease of installation in mind using powerful, efficient and reliable external rotor motors.

With a very compact, narrow profile they are ideal for integration into many applications requiring unobtrusive air movement with the minimum of system disruption. There are three fans in the range, from the ACF 120x62 with a free air flow of 80 litres/s. (170ft³/min) to the powerful ACF 160x62 capable of developing pressures up to 600 Pa (2.4 in.wg.) Installation is simple with the dynamically balanced motor/impeller assemblies providing long term performance. Ideally suited for applications where space is limited but where system resistances to flow demand good pressure development.

STOOL-MOUNTED

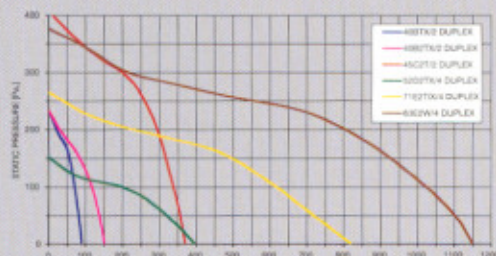
A range of robust single inlet fan suitable for commercial and light industrial use in general ventilation and cooling.

The construction is of a fabricated steel fan housing incorporating aluminium or steel forward curved centrifugal impellers.

The fans are directly driven by totally enclosed fan cooled motors which are mounted on a platform or stool. The stools have holes incorporated in their feet for the purpose of locating the fans.

The eleven fans in the range, from the 52DS giving 188 litres/s (400ft³/min) at free air to the 126HW giving 1792 litres/s (3800ft³/min) are all available with three-phase motors with the smaller seven, 52DS to 90GW inclusive, also available in single-phase. A wider range of performances are achieved from these units as generally a choice of different speed options is available (except 52DS and 57DT models). Speed control by voltage variations is not possible on single phase versions. However with these types of fans, mechanical dampers are normally used.

Although robust, these fans are not intended for handling explosive, inflammable or corrosive gases. Each fan is available in eight different handing and discharge positions. However, availability varies, so please contact us.



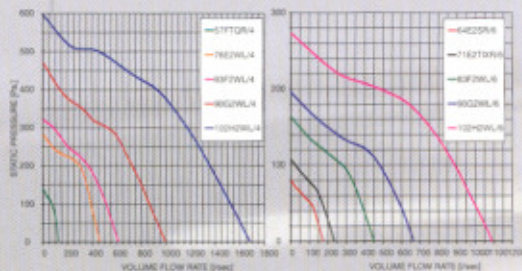
DUPLEX

The duplex or twin scroll fan units are basically two fans driven from a common motor which has a double shaft.

The purpose of this design is to provide air across a broad front, for example a water to air heat exchanger. They have an inherent advantage over the Crossflow (or tangential) fan in that the forward curved centrifugal impellers have a better pressure development characteristic. This is important when a fan of low profile is required because of restricted space, but high resistance must be overcome, for example, in electronic cabinets where high packaging density is often encountered.

The two smallest fans in this range, the 40B2TX and 40B1TX are particularly useful in equipment cooling and in 19 inch racks. The powerful two-pole dual voltage motors enable the fans to give volume flows of 59 litres/s (125ft³/min) and 104 litres (220ft³/min) respectively, at 150 Pa (0.6 in.w.g). The other four fans in the range are duplex fan 'decks' where the motor is resiliently mounted onto a plate, which also supports the outlet flanges of the two fan housings. These provide high air performances from slim low profiles. They are intended for use in high quality ventilation systems and air conditioning units, air curtains, fan convectors, clean room benches etc, and are particularly useful wherever air must be delivered across a broad front to effectively cover heat exchangers or filters.

Generously sized 4-pole (1300 rev/m) motors of the permanent split capacitor type are used on these fans and they are suitable for speed control by voltage reduction.

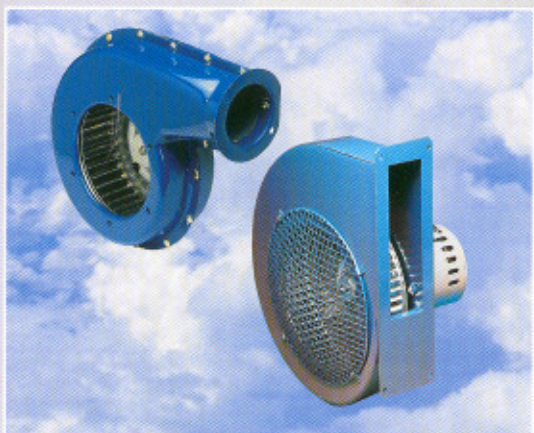
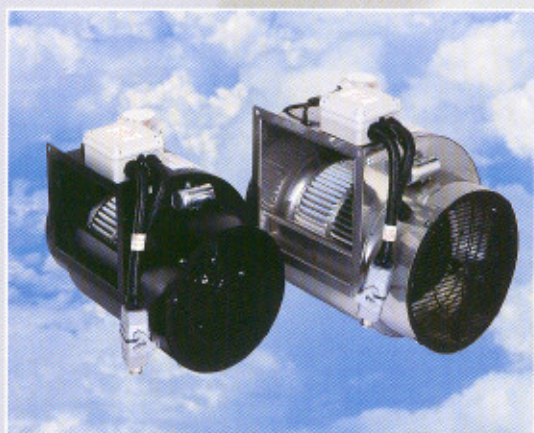
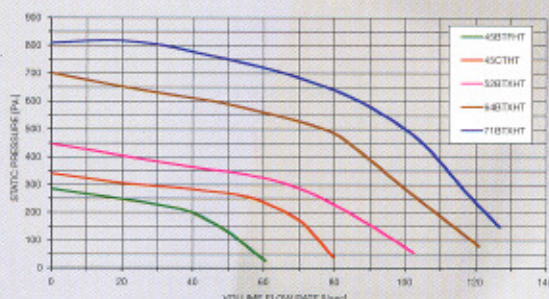


DOUBLE INLET, DOUBLE WIDTH

A range of fans originally developed from the demands of the Domestic Warm Air Market where large volumes of air at low outlet velocities are required from very compact units.

Above all, these units have to be very quiet to suit the domestic environment. Since then, larger, more powerful units have evolved to meet the needs of overcoming greater system resistances. The range now covers nine fans, from the small 64E2SR giving typically 95 litres/s (200ft³/min) against 57 Pa (0.23 in.w.g) to the 102H2WL/4 providing over 1680 litres/s (3560ft³/min) at free discharge.

All the fans feature two large inlets and a generous outlet, which, combined with low impeller speeds ensure that aerodynamic noise is kept to a minimum. Motor noise and mechanical vibration is reduced considerably by using a three-point resilient motor mounting. Five of the fans are super-quiet, for use where low running noise levels are critical, using motors running between 800 and 950 rev/m. These are the 64E2SR to 102H2WL. The three more powerful units, 76E2WL/4, 90G2WL/4 and 102H2WL/4 are suitable where noise is still an important factor, but higher system resistances are encountered, such as large complex duct systems or where high density filters are used. All the fans in this range can be speed controlled to give a variety of duties, by voltage variation.



High temperature (HT) Range

With many years experience in fans handling hot air (including pioneering work on domestic fan assisted ovens).

A range of five fans suitable for air, and combustion products from natural gas burning appliances, up to 250°C, incorporate proven features to help ensure long reliable product life. The fans employ an intermediate cooling arrangement between the main impeller and motor to keep the bearings and windings within their temperature limits.

Capable of performances between 10 & 130 litres/s (20 & 275 ft³/min) they are used in such applications as flue gas extract for commercial heating appliances including overhead radiant tubes and space heaters. Laboratory ovens and tunnel curing ovens also incorporate these units. A black flexible high temperature polyester paint finish is used to enhance both appearance and longevity. Production units are made to order with unique features such as bespoke outlet flanges to suit the needs of the Original Equipment Manufacturer.

Flue Dilution (GBDF & SSDF) range

Airflow offer a tried and tested comprehensive range of flue gas dilution fans, including stainless steel versions for enhanced corrosion resistance, which enable combustion products from gas fired boilers and water heaters to be discharged to atmosphere at low level.

The concept of diluting the products of combustion for environmentally safe discharge is now well established, and this fan design meets the need of the majority of installations for appliances with input ratings of between 60 & 650 kW.

There are significant advantages in using dilution fans instead of conventional flue stacks as they offer the opportunity for the flexible siting of boiler and water heaters within the boiler room, and the elimination of unsightly external, or expensive internal flues.

Based on efficient and quiet double inlet centrifugal fans they are capable of overcoming the system resistance of flue duct runs, and, with the built-in flow switches safety is not compromised in the event of fan failure or flue blockage.

Special Applications

Many variants on the standard fan range have been designed and manufactured to meet specific applications. This service is available to volume original equipment manufacturers where a minimum of 50 to 100 off are needed at any one time. The design of the fan casings and the method of producing impellers allows Airflow to combine a variety of fan blade widths to different diameters, and incorporate into the most suitable scroll. When combined with a motor of the correct speed and appropriate output power the customers' specification in terms of flow rate and dimensional constraints can often be met.

AIRFLOW™

Specialists in Air Movement Technology

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