



DYNAMIC PROGRESS – MADE IN CANADA



PARTNERSHIP EXTENDS BEYOND THE FACTORY GATE.

“We’ll take care of it” is more than just a token expression at AIR FRACTAL - it is part of the company’s culture. Whether it be pre-engineering or coordination, it is a matter of course for us to contribute our thoughts and ideas, to develop solu-tions and to inspire our customers.

TIME AND PLANNING RELIABILITY – WITH HELPFUL SUPPORT FROM AIR FRACTAL

Project planning – At AIR FRACTAL you communicate with experts, who are well-versed in the characteristic aspects of your industrial sector.

Installation and start-up – Carried out professionally and on time, regardless of whether the site is in close proximity or located overseas

Maintenance – Regular maintenance and individual, customised maintenance contracts (plus “online condition monitoring”)

Documentation – Each individual production step is precisely documented. This guarantees that all data can be accessed at any time for the purpose of retrofitting or modifications.

24-hour hotline: +1 208-500-5010

Additional services:

- Technical advice
- Balancing of impellers and alignment of shaft system
- CFD studies for optimising aerodynamic components
- Ventilation measurements
- Flow measurements
- Noise and vibration measurements
- Replacement parts (even for third-party products)



CERTIFIED TO MEET THE MOST DEMANDING REQUIREMENTS.

We at AIR FRACTAL take special pride in the exceptional robustness and long lifespans of our fans. In order to ensure these qualities remain in the future, we are building on two sturdy pillars: vertical integration and quality management.

WE KNOW EVERY SINGLE PART – VERTICAL INTEGRATION, CANADA-STYLE

In order to put our philosophy on sustainable quality into practice, we place significant emphasis on completing each work step at our site. For this purpose, we have increased the size of our premises - the area of the site at our headquarters in TORONTO alone has been increased to over 10,000 square metres. Employing cutting-edge technology for processes ranging from laser cutting to paintwork lays the foundations for high-performance AIR FRACTAL fans.

METICULOUS INSPECTION – AIR FRACTAL' QUALITY ASSURANCE.

Our quality management is regularly certified, in particular in accordance with DIN ISO 9001. Moreover, we have full certification according to international norms and standards for the most important areas: welding; non-destructive testing; safety, health, environment; and many more.

Other important building blocks for AIR FRACTAL' quality assurance:

Materials appropriate to applications – Careful selection made by our experts on standard and special materials

Endurance tests – Impeller balancing in two planes for smooth running and long lifespan; finite element computations for checking stresses of components subject to dynamic load; non-destructive testing (NDT) for cracks using dye penetration tests; vibration analysis

Power tests – Using the in-house test bench for power values up to 500 kW

RELIABILITY AT THE HEART OF CUTTING-EDGE SYSTEMS.

Owing to their high performance and reliability, AIR FRACTAL fans have gained an excellent reputation in a diverse range of industrial sectors.

FROM 1.1 TO 2,000 kW – FAN POWER THAT IS APPRECIATED THE WORLD OVER:

Cement industry
Lime industry
Gypsum industry
Iron and steel industry
Waste incineration plants
Environmental engineering industry
Power plants
Metallurgy industry
Glass industry
Textile industry
Chemical industry
Petrochemical plants / Refineries
Synthetic-fibre production plants
Agricultural chemistry industry
Pharmaceutical industry
Plastic production and processing plants
Fertiliser plants
Sewage plants
Sugar industry
Timber industry
Food industry
Paper and pulp industry
Machine construction industry
Electrical industry
Automotive engineering industry
Drying plants
Metal and mineral processing industries
Transport industry
Many others

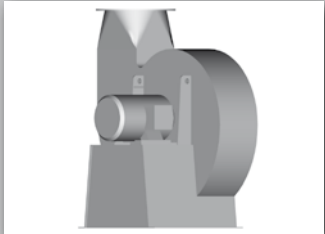


ONE NAME, FOUR MODELS, ALL POSSIBILITIES: AIR FRACTAL

Due to their modular design, AIR FRACTAL' radial fans not only have fa-vourable price-performance ratios, but also make up a notably wide range of products. Any one of four structural designs can be combined with one of three types of drive, so that the optimal so-lution can be realised for any industrial or processing application.

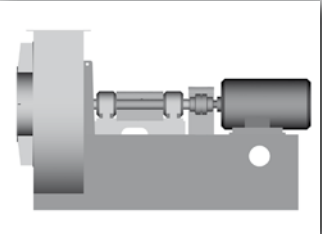
4 MODELS COMBINED WITH 3 DRIVE CONCEPTS

All radial fans from our basic product range are overhung, single-stage fans of welded industrial construction.



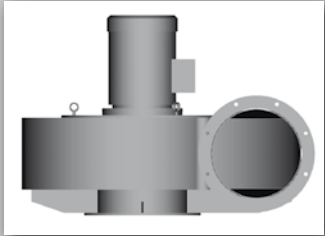
Direct drive
Impeller fitted on motor shaft

Structural design DX



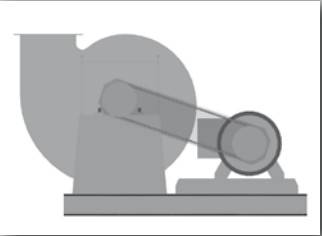
Coupling drive
Fan shaft runs in anti-friction bearings

Structural design CX



Direct drive
Impeller fitted on motor shaft, suitable for direct surface-mounting on separator, filter, etc.

Structural design DXE



Belt drive
Fan shaft runs in two anti-friction bearings; motor positioned laterally on an additional base frame made from sectional steel

Structural design BX

A GREAT DEAL IN EVERY SENSE: NEW DIMENSIONS TO POWER

AIR FRACTAL manufactures large fans and process fans with powers of up to 2,000 kW for demanding large-scale projects and plant manufacturers worldwide.

4 GOOD REASONS FOR PURCHASING LARGE FANS FROM AIR FRACTAL:

Made in CANADA

The entire planning, production and testing for all large fans takes place in CANADA. Each individual production step is completely documented.

Optimal degree of efficiency

Each AIR FRACTAL fan is designed and constructed to achieve the optimal degree of efficiency, given the process-dependent parameter values.

Maximum availability

A combination of AIR FRACTAL' quality assurance, state-of-the-art production technology and electronic monitoring systems results in a maximum degree of availability, which noticeably improves the overall economy of the system.

Planning reliability

On account of our capacity, we can guarantee the smooth and timely production of large fans with powers of up to 2,000 kW.

NOW FOR THE SPECIAL CATEGORY: AIR FRACTAL ORIGINAL PRODUCTS

Unusual demands require unusual solutions. Our team of experienced engineers and technicians are highly qualified and sufficiently equipped to deal with such situations. AIR FRACTAL designs and develops every conceivable type of fan, from high-pressure fans to explosion-proof, stainless-steel fans, and is directly involved from the project planning stage all the way through to the start-up stage.

PERFECTLY EQUIPPED TO HANDLE UNUSUAL ASSIGNMENTS. SPECIALLY-DESIGNED FANS FROM AIR FRACTAL:

- High-pressure fans (> 300 mbars)
- Fans designed for high-temperature areas (up to 500 °C)
- Pressure fans and pressure-resistant, shock-proof fans (up to 6 bars)
- Gas-proof fans
- Stainless-steel fans
- Fans with special types of drive, e.g. steam-turbine-driven fans
- Low-wear fans
- Explosion-proof fans
- Fans designed for specific processing applications



IDEAL CONTROL FOR ENVIRONMENT AND BUDGET.

Variable-speed control systems from AIR FRACTAL make an effective contribution to energy saving and, as a result, CO₂ emissions and energy requirements for your installation are significantly reduced, without the degree of efficiency being lowered at all.

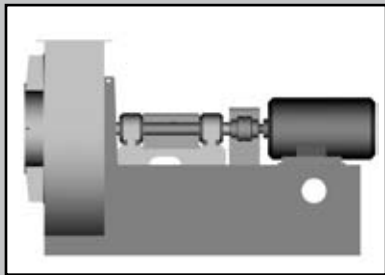
THE PRINCIPLE OF VARIABLE-SPEED CONTROL: USE ONLY AS MUCH AS YOU NEED.

All components are perfectly compatible. The additional costs for variable-speed control systems are effectively recouped within two years on average, due to the economical benefits.

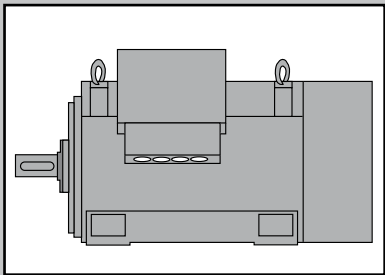
SAVINGS OF UP TO 30% AND MORE. THE BENEFITS OF VARIABLE-SPEED CONTROL:

- No unnecessary energy consumption
- Linear characteristic of the control system
- Quiet running
- Perfect start-up behaviour
- Smooth mechanical operation

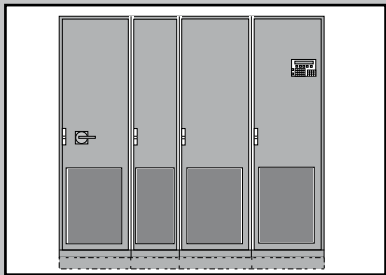
fan



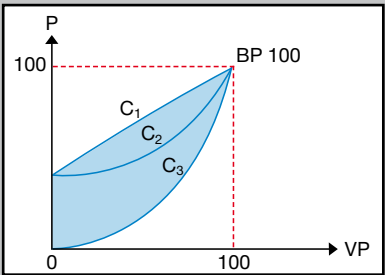
motor



variable speed control



max. energy efficiency



Power requirement curves
C₁ = control with damper
C₂ = inlet guide vane control
C₃ = speed control

THE AIR FRACTAL ENVIRONMENT: SOUND INSULATION AND ACCESSORIES.

Innovative sound insulation technology and high-quality accessories. With AIR FRACTAL you benefit from the latest technical developments and have the ideal equipment for any type of application.

ANYTHING BUT TRIVIAL. ACCESSORIES FROM AIR FRACTAL.

It is an advantage to be well-equipped for special assignments. The diversity of AIR FRACTAL' accessories makes it possible to produce customized equipment of the highest technical standard.

**Louvre dampers
Inlet guide vanes
Dampers
Transition pieces
Flexible connections
Anti-vibration mounts (rubber/spring type) Round filters
Inlet nozzles
Piezometric flow meters
Suction boxes**



PEACE AND QUIET FOR WORKERS AND THE ENVIRONMENT. SOUND INSULATION MADE TO ORDER.

Sound insulation is currently a subject of noisy debate. It is comforting to know therefore that our sound-insulation product range with pioneering technology already offers all kinds of possibilities to reduce the sound level to a minimum.

**Silencers with baffles
Tubular silencers
Housing insulation
Noise-protection cabins**



AIR FRACTAL GROUP CORP.

5200 Yonge Street, Suite 200, Toronto, ON, M2N 5P6, Canada.
Web: www.airfractal.ca Email: info@airfractal.ca
Tel.: +1 208-500-5010



AIRFRACTAL
Ingenuity in Clean Air