

Kiturami-Bumyang Chicago Blower



Kiturami BUMYANG

Kiturami-Bumyang Air-Conditioning Co., Ltd.

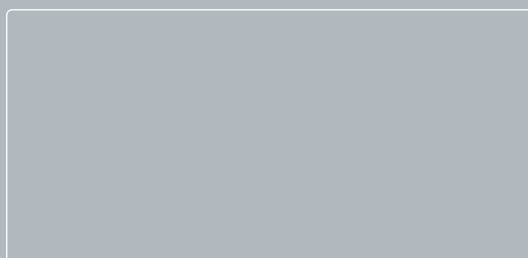
Head Office

1094, Hwagok-6Dong, Gangseo-Gu, Seoul, Korea

Overseas Business Team

Tel. +82-2-2600-9400 Fax. +82-2-2600-9491~4

<http://www.bac.co.kr>



Kiturami Bumyang Products

- Slim Type Air-Conditioner/ Room Air-Conditioner
- KEPCO Remote- Control Air Conditioner
- Air / Water Cooled Packaged Air-Conditioner
- Outdoor-Type Air Conditioner/Electric Cooling & Heater
- Heat Pump/Constant Temperature & Humidity Unit
- Telecom Center A/C/Air Cleaner
- System Air-Conditioner(EHP/GHP)
- Energy Recovery Ventilators
- Centrifugal Type Chiller
- Reciprocating Water Chiller / Screw Water Chiller
- Screw Condensing Unit
- Absorption Chiller - Heater/Fan Coil Unit
- Air Handling Unit /
- ▶ Chicago Blower
- Baltimore Cooling Tower / Industrial Cooling Tower
- Baltimore Ice Thermal Storage System



KituramiBumyang Pursues the

Future & World

Which are Abundant and Beautiful

Company History

- 1963. 09 The establishment of Seong Jen company
- 1969. 12 Technology partnership of HAVC with DAIKIN Japan
- 1972. 03 The change of the company name to Bumyang Air conditioning corp.
- 1974. 05 The establishment of factory at Gun Po, Southern west of Seoul
- 1988. 11 Technology partnership for Blower with Chicago Blower in U.S.A
- 1991. 03 The establishment of capability-test laboratory for Blower with AMCA standard
- 1991. 04 The first obtainment of Blower AMCA SEAL in Korea
- 1994. 04 Technology partnership for cooling tower with Baltimore in U.S.A
- 1996. 02 ISO 9001 Certificate The establishment of a factory at Jin Cheon, South of Seoul
- 2000. 04 KOLAS' s certification of Blower laboratory
- 2003. 05 Korea' s first certification of high-efficiency blower
- 2006. 07 Change company name with Kiturami-Bumyang Airconditioning Co., Ltd.



Kiturami-Bumyang Chicago Blower

The obtainment of AMCA SEAL

1. It can be estimated fairly without any prejudice of other competitor's products
2. The identification of item's capability with DATA on a catalog can be publicly assured.
3. SEAL is attached with it and the quality can be guaranteed morally
4. It is unique for the quality to be certified internationally in Blower and Air controller industry
5. The first obtainment of AMCA SEAL in Korea



AMCA SEAL
(Air Movement And Control Association International, Inc.)

KOLAS's certification of Blower capability-test laboratory

The certification of capability-test laboratory for Blower at Jin Cheon Factory as KOLAS (Korea Laboratory Association Scheme)



the107th(1/3)

1. It is unique to be publicly certified by Nation in local Blower industry
2. In order to get worldwide certification by one-time test it save your effort
3. In case of other companies workers with public certification institute make an inspection with duct and the inspection can be subjective. Consequently it has failed to get trust by foreign countries because the difference between the capability on DATA and the one on real-estimated DATA can take place.

Certification of high efficiency

1. The system to guarantee efficiency by KEMCO
2. The state-owned organizations is obliged to use high-efficiency materials
3. The prior purchase of high-efficiency items
4. Although early investment cost is slightly high it can pay to early investment cost within 6 months to 2 years
5. Financial aid for consumers (To Maximum \$100,000 at no expenses an estimated \$170(capacity of electricity conversation)per 1kw is given to consumers
6. The first certification of high-efficiency Blower in Korea

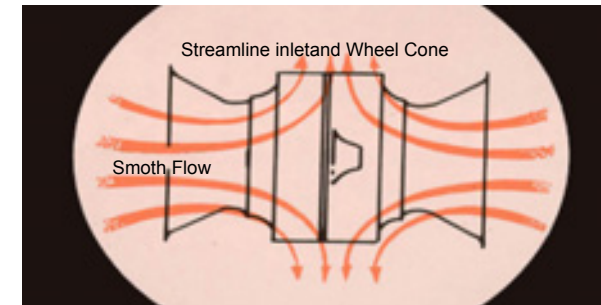


High-efficiency materials

the certification of high efficiency (D/51 all model)

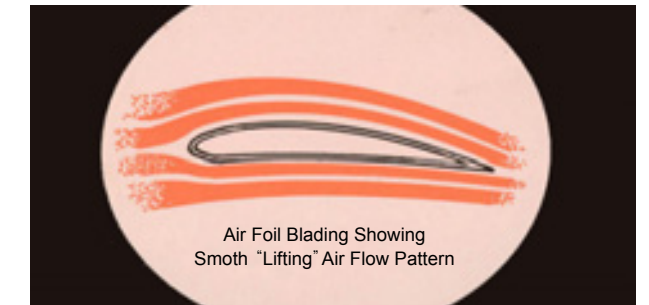
conservation of AXIS operation

The use of blades with a peculiar design increases efficiency(Average static pressure 80%). Comparing to Air Foil and Sirocco of the existed Fan(Bumyang's Item) the conservation of Axis operation is from 25% to 40%. Comparing to Limit load(other's item) the conservation of Axis operation is 15%



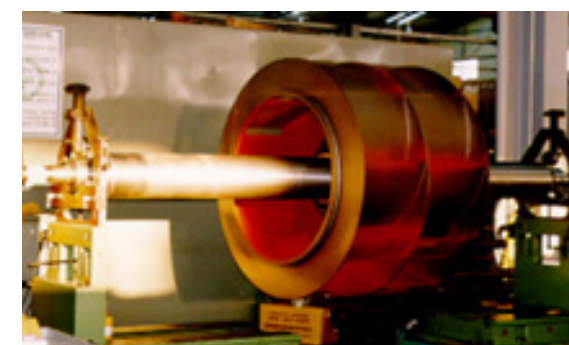
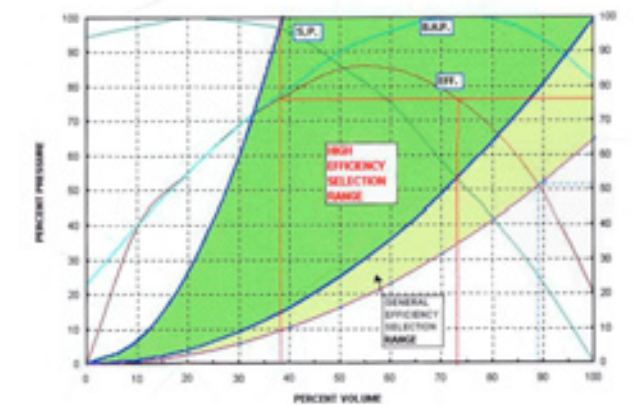
The significantly silent operation

The reduction of disturbance of air current and loss results in the conversation of Axis operation by Air Foil design, which makes it possible to do silent operation. When air flow and air pressure is the same the operation sound is lower than Bumyang Fan's Sirocco Limit Load's by from 10% to 20%.



The stable discharge of air flow

In horizontal-axised wind quantity the static pressure line is drawn extremely downward and even when the change of static pressure causes operation to be out of standard the stable provision of air flow is possible.



Daynamic Balancing Test

It takes deep consideration of buyer's requests for order products and real-operation conditions. It is desgied and experimeted in order to make it possible for optimum operation under the most difficult circumstanes, which can keep stable quality

Kiturami-Bumyang Chicago Blower

Centrifugal Blower

AIRFOIL FANS

“Certification of high efficiency and Realization of low noise, conserved Energy.(D/51, D/10A)”

The Airfoil-looking blades, chicago’s unique design,makes it possible to successfully produce significantly high-efficiency blower with nearly free-noise operation. When a high-quality inhalation vane is used it will become ideal adjustable airflow system. The strong welding system, and the use of ball and roller bearing make it possible to do fully satisfying operation for continuous and long time



| Wheel Dia. 340mm ~ 2051mm | | |
|---------------------------|----------------|-----------------------|
| Air Flow (m³/min) | Efficiency (%) | Static pressure(mmAq) |
| 34 | ~ 83 | 6.5 |
| ~ | | ~ |
| 9,972 | | 500 |

■ Usage : Building, heating and cooling for factory, normal ventilation, hot-blowing dryer, Installation of refrigeration, a dust collector

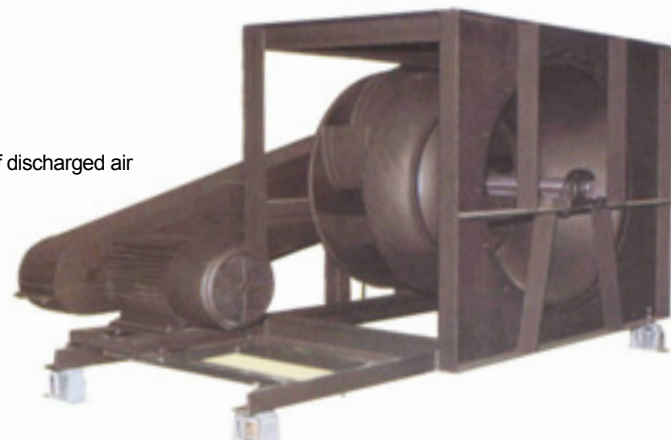
AIRFOIL PLENUM FANS

“Realization of low noise, conserved Energy.(D51PA, D/10PA)”



| Wheel Dia. 340mm ~ 2051mm | | |
|---------------------------|----------------|-----------------------|
| Air Flow (m³/min) | Efficiency (%) | Static pressure(mmAq) |
| 34 | ~ 70 | 6.5 |
| ~ | | ~ |
| 4,300 | | 355 |

■ Usage : Building, heating and cooling for factory, normal ventilation, hot-blowing dryer, Installation of refrigeration, a dust collector



It has no casing of blower and you can select whichever direction of discharged air you want. In addition it is light weight and easy use in even small space. Line in a duct is available and we are very proud of the product to get AMCA SEAL

Heavy Duty Blower

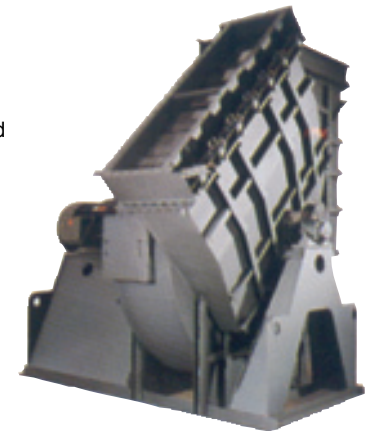
INDUSTRIAL AIRFOIL FANS

It is developed for the use of industrial in-pressure blower.(D1900M)

Because of Air Foil-type Blade design with five limit load it is suitable for a speed of any direct motor and turbine. Above all, the best merit for the product is suitable for an industrial in-pressure blower with little change in airflow by change in static pressure. Bearing support is installed separately and according to location for use you can choose direct or belt operation system. Because of durable structure,high efficiency, silent operation it is popular in power station. the heat-resisting temperature is up to 420 °C.

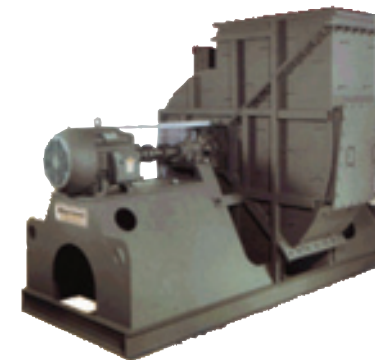
| Wheel Dia. ~ 3000mm | | |
|---------------------|----------------|-----------------------|
| Air Flow (m³/min) | Efficiency (%) | Static pressure(mmAq) |
| ~ 28,300 | ~ 87 | ~ 1,140 |

■ the usage : industry, in-pressure ventilator.



PRESSURE AIR FANS

It is able to produce high pressure under circumstance of heavy airflow(2300A)



For the purpose of continuous ventilation of the first air of burner, mill, accumulator, gas cleaner the strong blade is installed backward. The best feature is to produce high pressure under heavy airflow and, according to chemical property of gas and wide range of measurement the product's surface goes through some process such as stainless, Inconel Hastelloy and Ceramic. Therefore order for products used materials to prevent abrasion is available. Internal-heat temperature can be up to 315 °C.

| Wheel Dia. 610mm~ 1,520mm | | |
|---------------------------|----------------|-----------------------|
| Air Flow (m³/min) | Efficiency (%) | Static pressure(mmAq) |
| ~ | ~ | ~ |
| 1,410 | 77 | 1,780 |

■ Usage : Burnign Air, Air transportation dryness, Drier, refrigeration , Chemistry installation , Ejector, Dust collector, Boiler exhaustion etc...

MECHANICAL DRAFT FANS

Operation system with wide range of application is used for the product. (D/1900S)

It has wide ranges of application by Air Foil blade and high-efficiency belt operation. Therefore, it is used for all of supply and discharge such as burning air, refrigeration, high-pressure dryness, Ejector, high-pressure air. Because of roller bearing attached with bearing support and main support the product is strong.

| Wheel Dia. 720mm~ 1,760mm | | |
|---------------------------|----------------|-----------------------|
| Air Flow (m³/min) | Efficiency (%) | Static pressure(mmAq) |
| ~ | ~ | ~ |
| 2,832 | 87 | 760 |

■ the usage : Oven, Purification of dry air,Heating Air, Parts cleaner,and ect.



Kiturami-Bumyang Chicago Blower

Axial Blower

► FIXED PITCH VANE AXIAL FANS

High efficiency. (D/47 AD.)

Comparing to other axial fan the efficiency is higher by 30% and especially it is suitable for ventilator requiring low speed and noise. The blade is Air Foil type and casing is made of a strong steel sheet. The both of edges are made of flange. And also mild-steel blade for clean air and bronze blade for spark resistant are available. Because blade and hub were made by low-pressure molding. It is better and stronger quality than other



Wheel Dia. 374mm ~ 2060mm

| Air Flow (m³/min) | Static pressure(mmAq) | Power(kw) |
|-------------------|-----------------------|-----------|
| 48 | 6.5 | 0.75 |
| ~ | ~ | ~ |
| 7,080 | 380 | 200 |

- the usage : building, Air ventilation, Vessile ventilator, partial ventilator, refrigeration of Painting booth dispersion and exhaustion, and In-heat blower ventilation

► CONTROLLABLE PITCH VANE AXIAL FANS

It is ideal for pure-air and high-efficiency airflow(D/47 Con.)



It is adjustable pitch axial fans with high quality and efficiency, and used for commercial and industrial clean air, and VAV pitch-type airfoil blade is installed within the product. Casing is made of strong steel sheet. Flange is attached to the both of casing's edges. It has two operation ways-direct and belt operation. Because blade and hub is made in a way of low-pressure molding. It is better and stronger quality than other

Wheel Dia. 415mm ~ 2060mm

| Air Flow (m³/min) | Static pressure (mmAq) | Power(kw) |
|-------------------|------------------------|-----------|
| 28 | 6.5 | 0.75 |
| ~ | ~ | ~ |
| 7,080 | 380 | 200 |

- the usage : building, cooling and heating factory, air ventilation, mine, tunnel ventilation and ect..

JET FAN

► JET FAN

If is developed for the use of Industrial in-Jet fan

Separate ducts and ventilator are not needed and, installation is cheap and simple. And also renovation is easy.

For the preparation of heavy traffic arrangement of airflow operation volume is made and ventilation improves. And also the energy cost for operation is saved

Clock-wise and counter clock-wise direction of operation are possible and In case of emergency such as fire in a tunnel it exerts maximum effect.

A wide range of materials-SUS, HOT-DIP GAL... is available in accordance with various situations of a work place and damage caused by car's exhaust fumes can be preventive

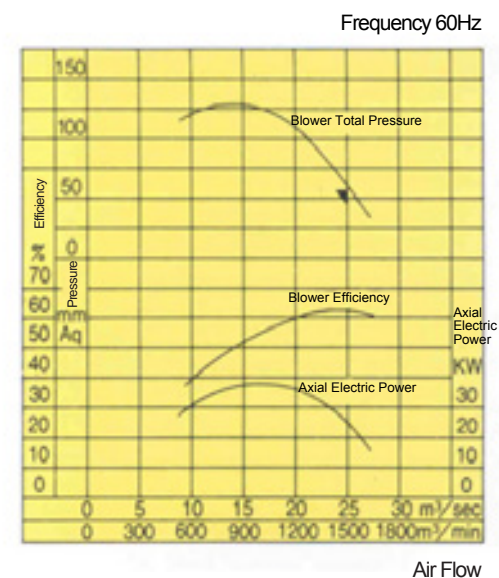


Wheel Dia. 630mm~ 1,000mm

| Air Flow (m³/min) | Total pressure(mmAq) | Power(kw) |
|-------------------|----------------------|-----------|
| 1,500 | 55 | 30 |
| 2,208 | | 37 |
| 3,179 | | 55 |

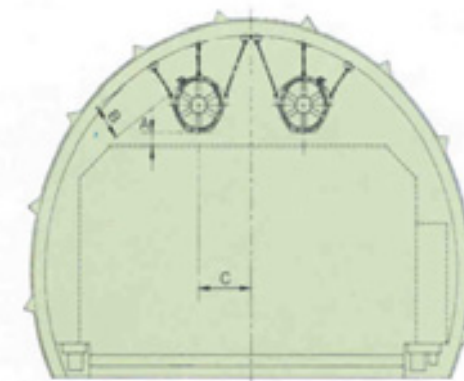
- the usage : It set on upper side within tunnel at a regular intervals. Jet current is sprayed from each blowers and the air within tunnel is ventilated.

Ø1030 the line for expected capability



JET FAN's section location

A ≥ 200mm, B ≥ 250mm, C is decided as long as repairment car does not interfere car driving on the next line as repairment and management are underway



Control of distance from inside tunnel's ceiling stops possible disturbance of car driving.

Kiturami-Bumyang Chicago Blower

Industrial Sand Bleed Fan

► D/16 INDUSTRIAL CENTRIFUGAL FAN

With the availability of two types of rugged radial wheels, the fans handle a wider spectrum of harsh airstreams and materials. The two housing designs further assure compatibility with specific applications and installations.

Application

D/16 Fans are equipped with 6-bladed steel radial wheels designed for the toughest industrial environments. Flat blade surfaces prevent material build-up or deposits and are easy to clean. Wheels are statically and dynamically balanced for smooth long-lasting operation, keyed to the shaft and secured with multiple set screws.

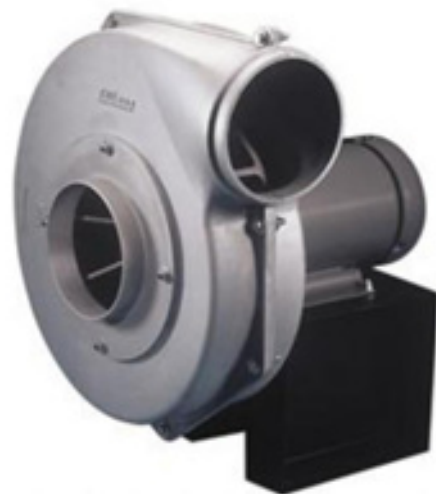
Most fan sizes can be ordered with either the Wool-Fiber wheel or the Long-Shavings wheel.

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 1982 CMM |
| Max. S.P | 1016 mmAq |
| Max. Temp. | 426 °C |
| Size | 127mm ~ 838mm |



► D/38 Cast Aluminium Pressure Blower



Kiturami Bumyang Chicago's castings blend aluminum with high-strength alloys to create strong, corrosion-free housings and wheels ideal for adverse industrial environments. Aluminum also stands up to sub-zero ambients without material deterioration. Since aluminum is non-magnetic and non-toxic, Kiturami Bumyang Chicago's pressure blowers are recommended for both electronic and food related applications.

Application

D/38 fills the diverse needs of high pressure applications from combustion air to fume and dust control to food processing

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 113 CMM |
| Max. S.P | 508 mmAq |
| Max. Temp. | 93 °C |
| Size | 203mm ~ 470mm |

► Multi-Blade Blower

Feature

Compactly designed
Operating with low noise and vibration
Performing the desired operation with a low speed
Easy maintenance

Application

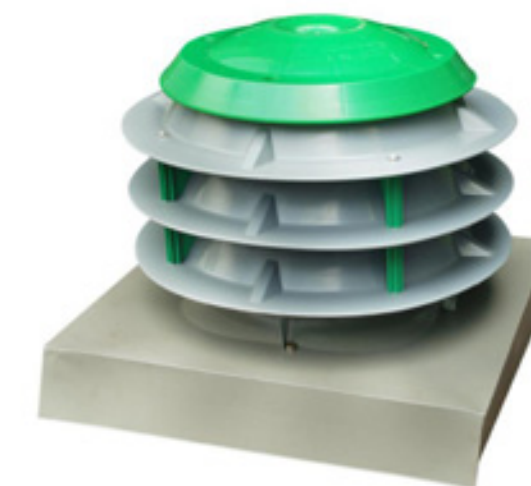
Small capacity boiler, ventilation, building, cooling and heating



Operating Range

| Type | Single | Double |
|---------------|---------------|---------------|
| Max. Air Flow | 3000 CMM | 5000 CMM |
| Max. S.P | 90 mmAq | 100 mmAq |
| Max. Temp. | 60 °C | 60 °C |
| Size | 275mm ~1308mm | 275mm ~1308mm |

► ROOF FAN



Feature

Material : AL, SUS, polypropylene
We applied new propeller fan revised to decrease undesired Air flow. It operates properly even in out of current since we install a reverse wind protection device.
Timer attached increases the efficiency.

Application

Ventilation for various building's rooftop

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 350 CMM |
| Max. S.P | 100 mmAq |
| Max. Temp. | 60 °C |
| Size | 450mm ~ 900mm |

* Optional Specification : Operatable for 2hours at 400°C

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Duct in Line Fan

► Rectangular Type

Feature

It appears the characteristics ; pressure of centrifugal fan and air flow range of axial fan.
Limit Load operation
Higher efficiency than centrifugal impeller, lower noise than axial impeller

* Optional Specification : Anti-Explosion

Application

Ventilation for building and factory etc, built in ducts
Cooling and drying of equipments
Optional Specification : Operatable for 2hours at 400 °C

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 740 CMM |
| Max. S.P | 50 mmAq |
| Max. Temp. | 60 °C |
| Size | 275mm ~ 875mm |



► Nozzel Type



Feature

Low noise operation
Easy installation and maintenance
Ducts are no need.
Decrease the temperature difference in a huge area.

Application

Ventilation for Parking lot, stadium, factory etc.

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 33 CMM |
| Max. S.P | 20 mmAq |
| Max. Temp. | 60 °C |
| Size | 100mm ~ 315mm |

Wall Fan

► Ventilating Wall Fan

Feature

Low noise blade and frame design and high efficient motor
Easy to install with directly connected blade
The lowest consumption of electric power
Easy installation, repair, and cleaning
Operating the fan blade and shutter by ON/OFF switch

Application

Ventilation for office, hospital, conference room, bathroom, smoking room etc.

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 17.8 CMM |
| Max. S.P | 12 mmAq |
| Max. Temp. | 60 °C |
| Size | 150mm ~ 300mm |



► Explosion Proof Wall Fan



Feature

Kiturami Bumyang's Explosion Proof Fan is most suitable for preventing explosion where an explosive material is present. It could improve work environment as well as safety. And it is easy to use and simple and compactly designed.

Application

Ventilation for explosive gas store, plant battery room, paint store, painting room, dusty work place, airtight place, etc.

Operating Range

| | |
|---------------|---------------|
| Max. Air Flow | 150 CMM |
| Max. S.P | 20 mmAq |
| Max. Temp. | 60 °C |
| Size | 300mm ~ 600mm |

Accessories

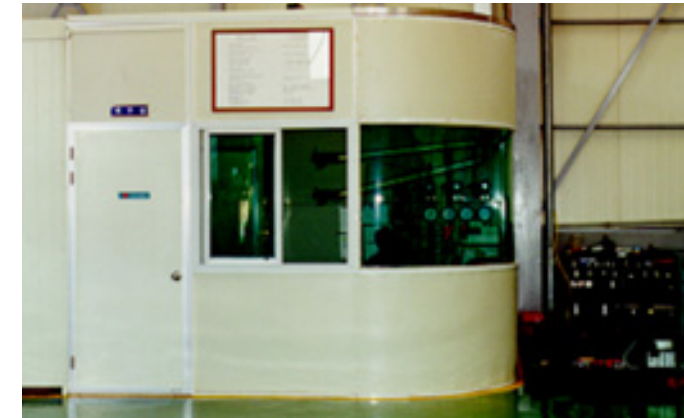
Motor Side Back Guard, Back Guard, Wall Sleeve, Wall Shutter, Front Guard, Weathershield, Weathershield Front Guard

Kiturami-Bumyang Chicago Blower

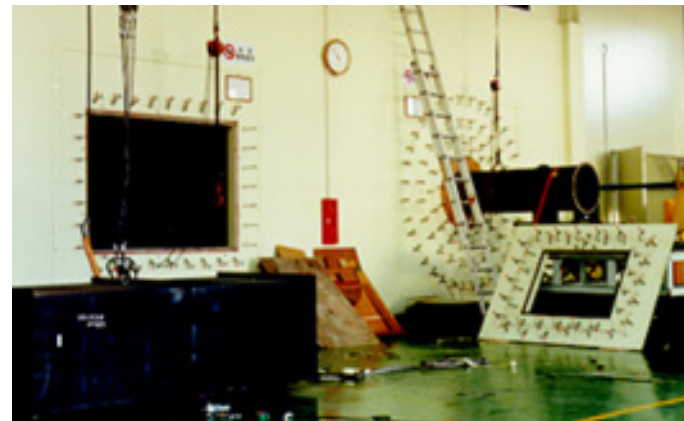
Performance Test Room



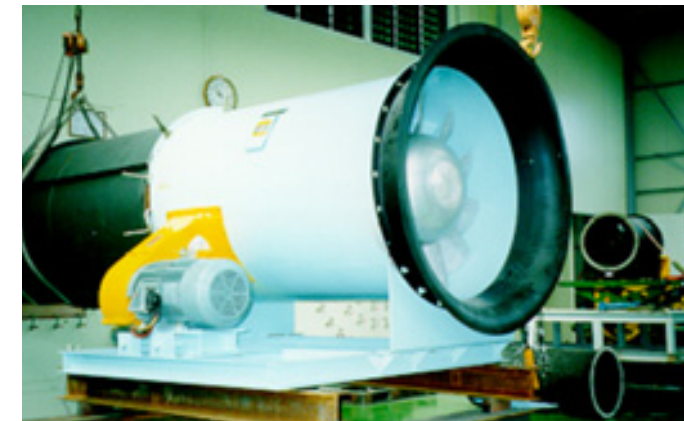
Max. Blow Volume 4,400 CMM
 Max. Static Pressure 1,780 mmAq
 Max. Diameter 3,028 mm
 Test Temperature 300 °C



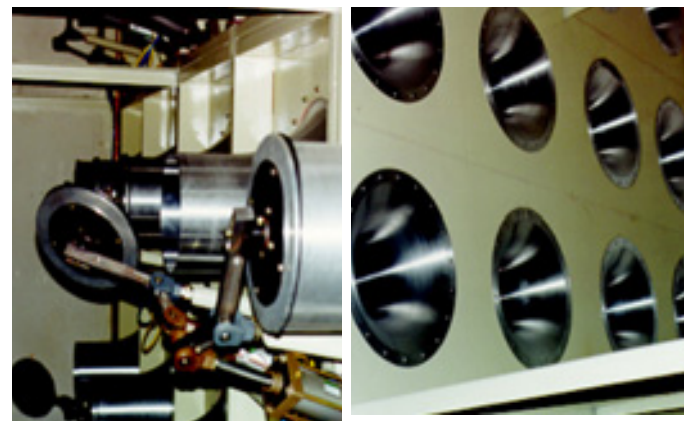
OUTVIEW OF MEASUREMENT BOOTH



Front View of Test Room
 AMCA STD. 210.



AXIAL FAN TESTING
 Imp. Dia. 2,060 mm
 Volume 4,000 CMM
 Pressure 85mmAq
 Power 120 HP
 Efficiency 75%



MULTIPLE NOZZLES IN THE CHAMBER



CENTRIFUGAL FAN TESTING
 Imp. Dia. 1,625 mm
 Volume 1,835 CMM
 Pressure 1,925 mmAq
 Power 1,200 HP
 Efficiency 78%

Kiturami-Bumyang Chicago Blower

High-temperature test manufacturing equipment



HIGH TEMPERATURE FAN TESTING
Max. Dia. 2,060 mm
Max. Length 1,200 mm
Max. Temp. 400 °C



JET FAN
Dia. 1,030~1,500 mm
Power 30~55kW
Outlet Speed 30m/s



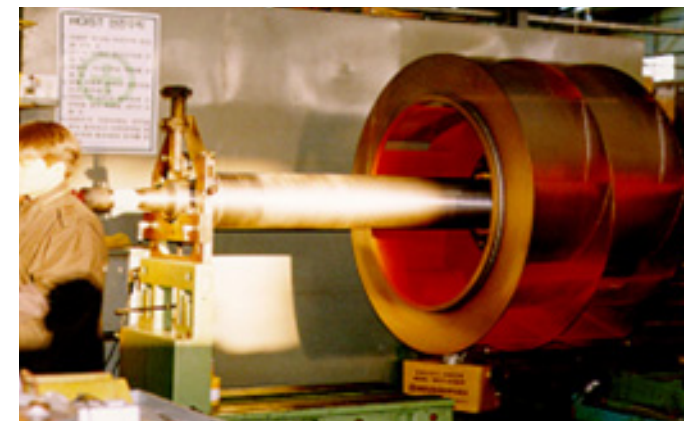
AXIAL FAN
Dia. 419~2,060 mm
Power Max. 200kW



SHOT BLAST MACHINE



PAINTING BOOTH



DYNAMIC BALANCING MACHINE

Kiturami-Bumyang Chicago Blower

Products for Industry & Air Handling unit



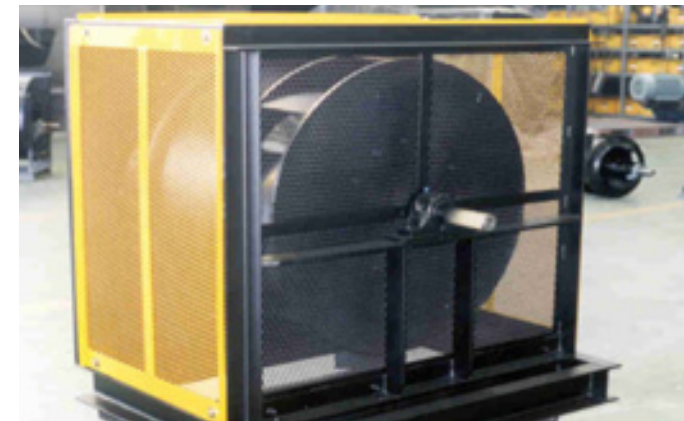
AIR FOIL FAN
 Volume 5,132 CMM
 Pressure 530 mmAq
 Power 580 HP
 Efficiency 76%



AIRFOIL FAN
 For AHU
 For HVAC



Air foil FAN
 Volume 7,895 CMM
 Pressure 240 mmAq
 Power 1,000 HP
 Efficiency 78%



AIRFOIL PLENUM FAN
 For AHU
 For HVAC



AXIAL FAN
 Imp. Dia. 2,060 mm
 Volume 3,500 CMM
 Pressure 100mmAq
 Power 150 HP
 Efficiency 77%



JET FAN
 For Tunnel Ventilation