



Masters
of the Winds

CBI Group

Member of Nicotra Gebhardt Group



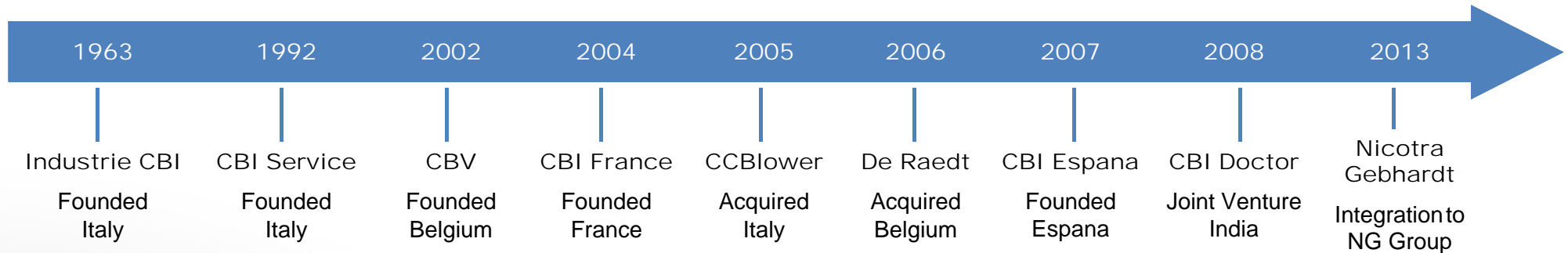
Fans & Blowers For Industrial Applications

www.cbifans.com

History



Group Profile



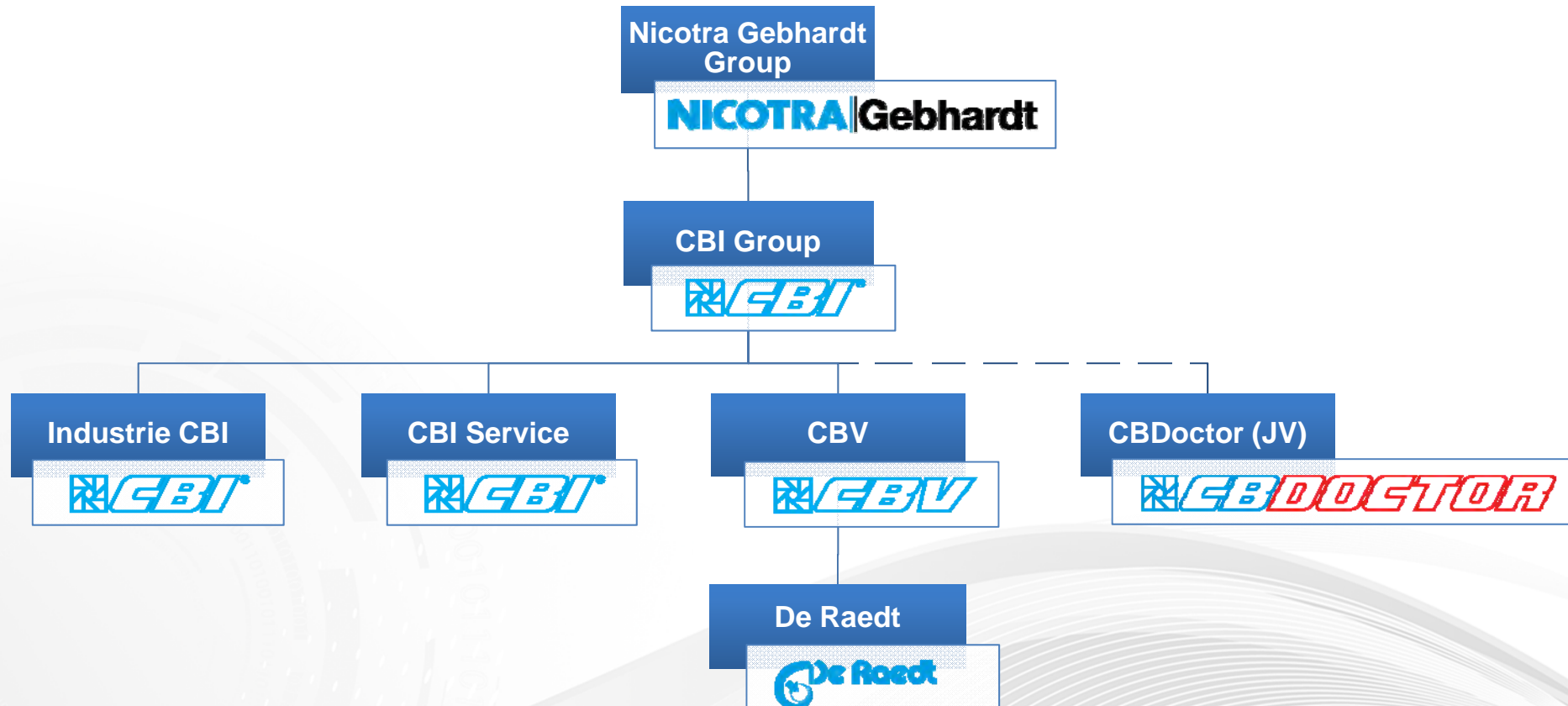
► October 2013

CBI group integrated Nicotra Gebhardt to form a wider Group close to 200 Million Euro, 1000 Employees and 12 Production Facilities around the world, with one of the Widest Range of fans and services comfort air and industry applications.

Companies



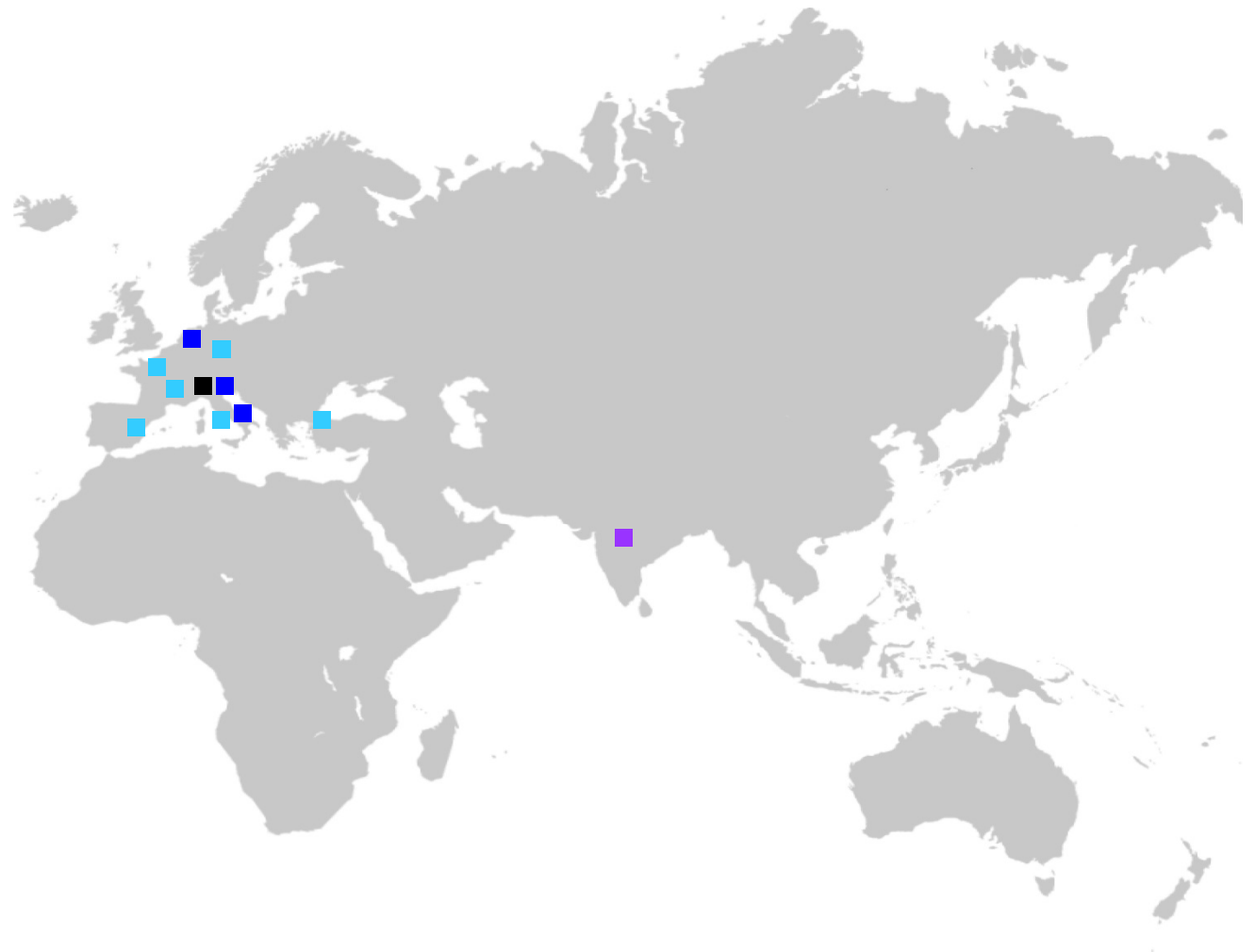
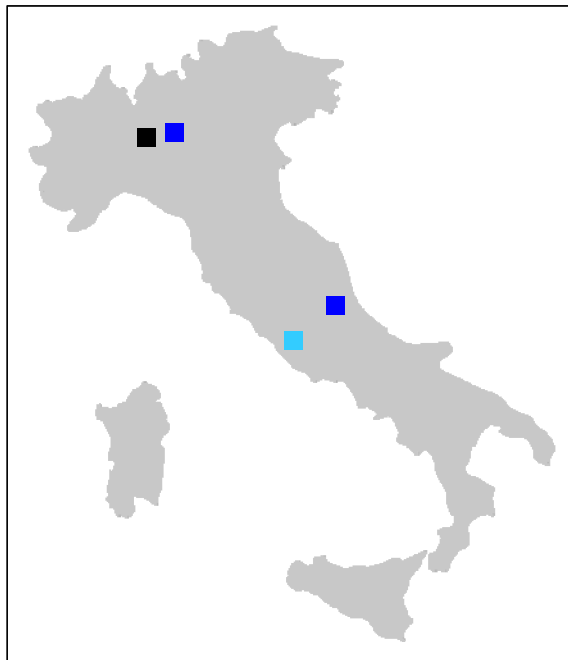
Group Profile



CBI Worldwide



Group Profile



■ Headquarters & Factories ■ Factories ■ Branches ■ Joint Venture

Industrie CBI Factories



Gissi plant, ITALY



Monza plant, ITALY (Headquarters)



Cambiago plant, ITALY



Tilff plant, BELGIUM



Ahmedabad plant, INDIA (JV)

Industrie CBI

It specialized his activity in the production of Industrial Fans. Today Industrie CBI has 3 factories for the production for:

- API 673 API 650 Centrifugal Fans
- Heavy Duty Centrifugal Fans
- Axial fans
- Industrial Fans



CBI Service

It was founded with the aim of offering Aftersales Services during and after the warranty period for CBI fans and also for products of any other brand. Main Activities:

- Assistance during erection on site
- Assistance at start-up & Commissioning
- Overhauling / Revamping

Heavy Duty API 673 API 560 Engineered



Centrifugal Fans

CBI is one of leading manufacturers of industrial fans.

Thanks to our Know-How, Technical Skills and Flexibility, the CBI Group is one of the leading European manufacturers of industrial fans and can offer a complete range of fans from the smallest models to those featuring an installed power of several MegaWatt.

Highlights:

- 5 Factories
- 6 Branches all over the world
- 50 and more Years of activity
- 200 Employees worldwide
- 300 HD Fans produced per year
- 23.000 Fans produced every year
- 90.000 Factories square meters
- 55.000.000 Euro average annual turnover

These fans have been engineered to operate in arduous conditions and offer benefits in the areas of:

- Energy consumption
- Resistance to build-up
- Resistance to high temperature
- Lifetime expectancy
- Erosion, corrosion and abrasion resistance
- Resistance to fatigue

Main characteristic:

- Flow rates up to 1.200.000[m³/h]
- Pressure up to 30.000 [Pa]
- Impellers with diameter up to 5 [m]
- Power installed up to 10 [MW].

Products & Applications



Industries Served



Oil & Gas



Cement plant



Power plant



Incineration plant



Desalination plant



Steel plant



Refinery plant

Products & Applications



Industries Served



Petrochemical plant



Polypropylene plant



Tunnel Ventilation



Metro Ventilation



Paper plant



Tunnel Ventilation



Ventilation in tunnel

References



Heavy Duty Engineered references



Centrifugal Fans



Heavy Duty Engineered references



Centrifugal Fans



Heavy Duty Engineered references



Centrifugal Fans



Heavy Duty Engineered references



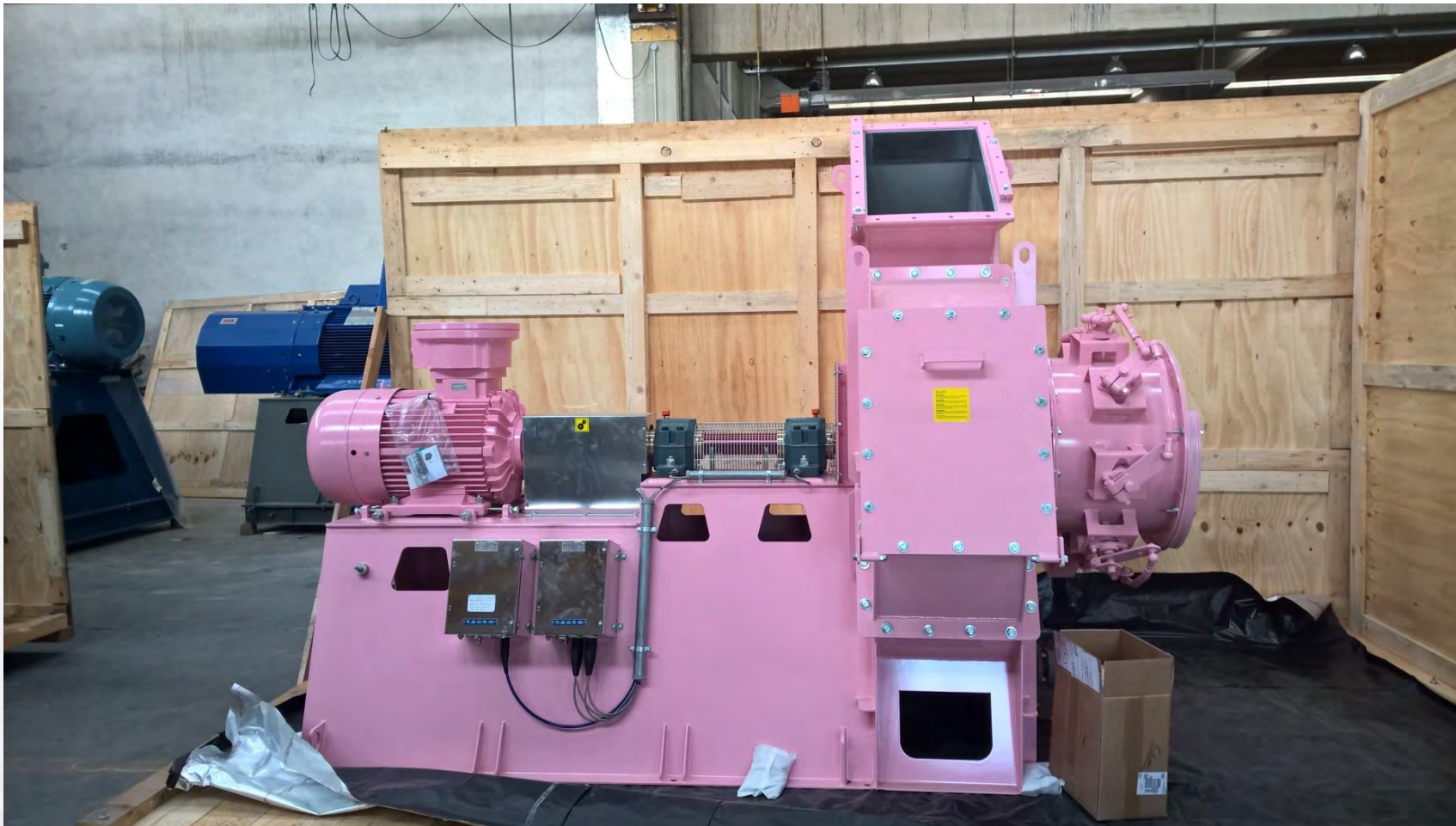
Centrifugal Fans



Heavy Duty Engineered references



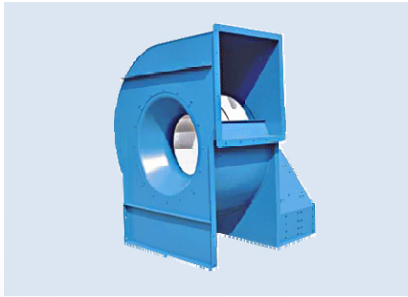
Centrifugal Fans



Centrifugal Fans Range of Production



Centrifugal Fans



CH series

- Total Pressure: 5.000 [Pa] max
- Flow Rate: 400.000 [m3/h] max
- Up to 2.450 [mm] impeller diameter
- Backward inclined airfoil or flat blades
- Direct or V-belt driven



SMX-B series

- Total Pressure: 22.000 [Pa] max
- Flow Rate: 400.000 [m3/h] max
- Up to 2.240 [mm] impeller diameter
- Backward inclined airfoil or flat blades
- Direct or V-belt driven



CHT series

- Total Pressure: 3.000 [Pa] max
- Flow Rate: 600.000 [m3/h] max
- Up to 2.450 [mm] impeller diameter
- Backward inclined airfoil or flat blades
- Direct or V-belt driven



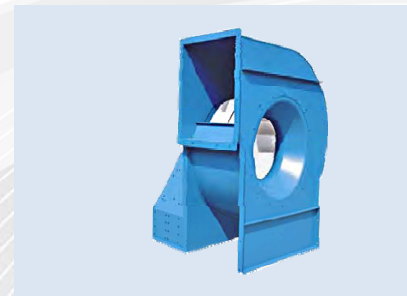
H series

- Total Pressure: 25.000 [Pa] max
- Flow Rate: 10.000 [m3/h] max
- Up to 1.100 [mm] impeller diameter
- Backward shrouded or flat blades
- Direct driven



K series

- Total Pressure: 9.000 [Pa] max
- Flow Rate: 350.000 [m3/h] max
- Up to 2.200 [mm] impeller diameter
- Backward inclined or radial blades
- Direct or V-belt driven



Z series

- Total Pressure: 9.000 [Pa] max
- Flow Rate: 360.000 [m3/h] max
- Up to 2.200 [mm] impeller diameter
- Backward inclined
- Direct or V-belt driven

Axial Fans



AXL series

- Total Pressure: 5.000 [Pa] max
- Flow Rate: 830.000 [m3/h] max
- Up to 2.800 [mm] impeller diameter
- High temperature design up to 400[°C]
- Direct driven, uni / reversible flow



GAT series

- Total Pressure: 600 [Pa] max
- Flow Rate: 50.000 [m3/h] max
- Up to 2.240 [mm] impeller diameter
- Adjustable pitch angle, airfoil blades
- V-belt driven



CBJET series

- Thrust: 2.800 [N] max
- 10 Sizes
- Up to 1.600 [mm] impeller diameter
- High temperature design up to 400[°C]
- Direct driven, uni / reversible flow



EFA series

- Total Pressure: 1.800 [Pa] max
- Flow Rate: 480.000 [m3/h] max
- Up to 2.240 [mm] impeller diameter
- Adjustable pitch angle, airfoil blades
- Direct driven



GAV-GAX series

- Total Pressure: 1.000 [Pa] max
- Flow Rate: 300.000 [m3/h] max
- Up to 2.240 [mm] impeller diameter
- Adjustable pitch angle, airfoil blades
- Direct driven



AP series

- Total Pressure: 100 [Pa] max
- Flow Rate: 35.000 [m3/h] max
- Up to 1.000 [mm] impeller diameter
- Adjustable pitch angle, airfoil blades
- Direct driven

Standard Products Catalog



Centrifugal Fans



DT series

- Total Pressure: 4.000 [Pa] max
- Flow Rate: 700 [m3/h] max
- single or double stage
- Die-casting aluminium
- Direct driven



CBS series

- Total Pressure: 2.000 [Pa] max
- Flow Rate: 20.000 [m3/h] max
- Up to 500 [mm] impeller diameter
- Forward wheel blades
- Direct driven



AP series

- Total Pressure: 3.800 [Pa] max
- Flow Rate: 2.300 [m3/h] max
- Up to 400 [mm] impeller diameter
- Die-casting aluminium
- Direct driven



CBB series

- Total Pressure: 4000 [Pa] max
- Flow Rate: 14.000 [m3/h] max
- Up to 500 [mm] impeller diameter
- Backward flat impeller blades
- Direct driven



VR series

- Total Pressure: 1.600 [Pa] max
- Flow Rate: 1.500 [m3/h] max
- Up to 180 [mm] impeller diameter
- Die-casting aluminium
- Direct driven



N series

- Total Pressure: 8000 [Pa] max
- Flow Rate: 11.000 [m3/h] max
- Up to 630 [mm] impeller diameter
- Backward curved or radial blades
- Direct driven

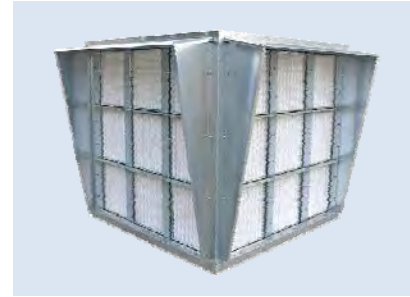
Accessories & Special Executions



Regulation Damper
Flow and Pressure Control



Inlet vane control
Flow and Pressure Control



Filtering Cells for Air Intake
Flow up to 200.000 [m³/h]



Sand Filter
Flow up to 100.000 [m³/h]



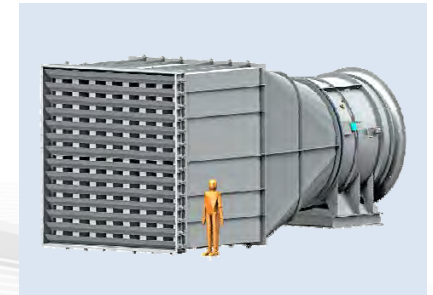
Polypropylene construction
To Process Corrosive Fluids



Insulation
Thermic or Acoustic Insulation



Gas tight construction
To Avoid all kind of Leakage



Silencer and Damper
4000x4000 [mm] Inlet Section

Service



Activities



Dedicated organization to Service the fans throughout their lifespan and be constantly prepared to assist our customers:

- From assembly to start-up
- During the warranty period
- For maintenance operations

We provide and install original spare parts or interchangeable ones including the current technical updates.

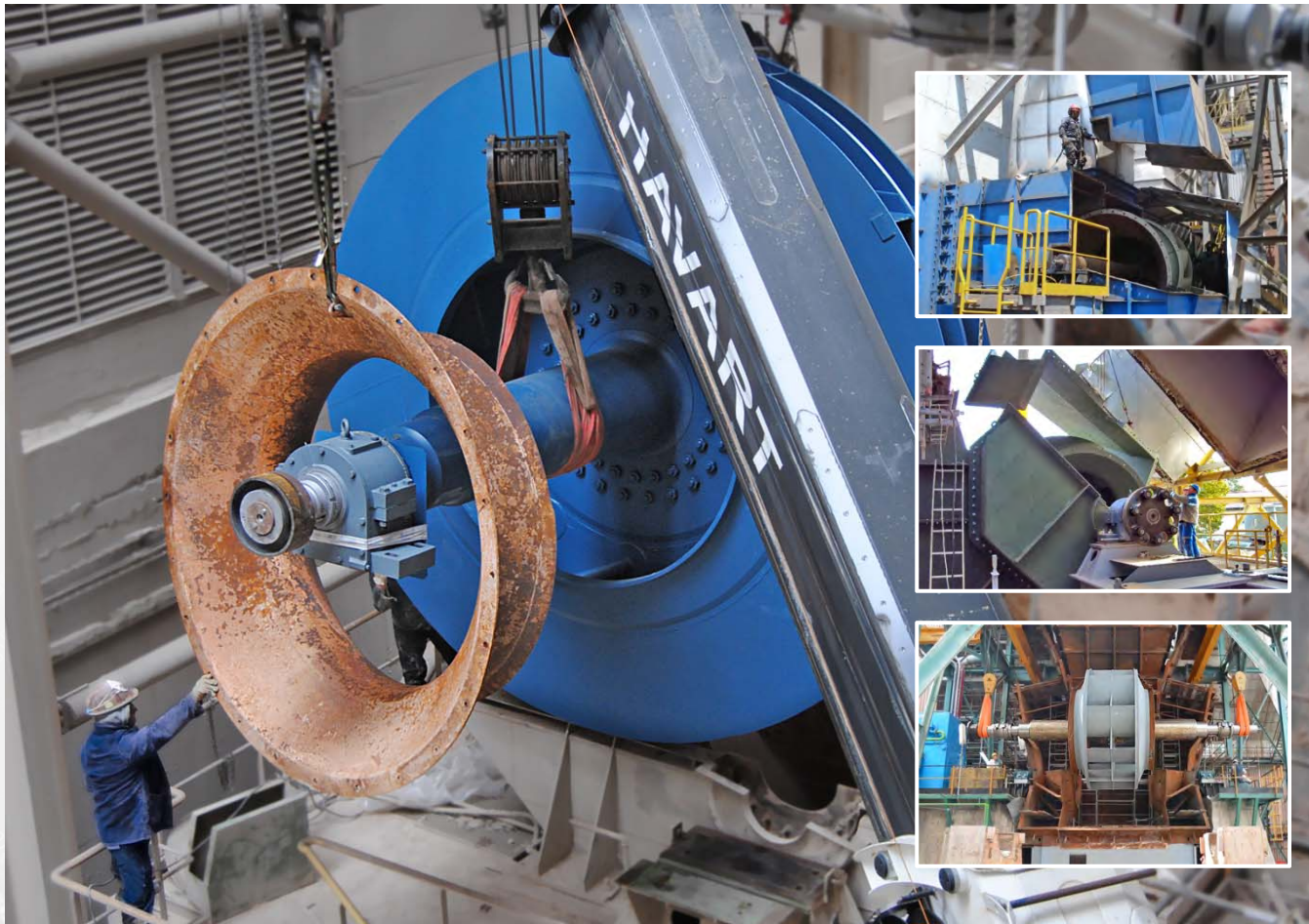
We can perform a total overhaul of the fans, either on site or at our factory.

This is carried out by our experts who can provide our customers with assistance all over the world operating on all CBI fans as well as on other constructors fans.

Service



Activities



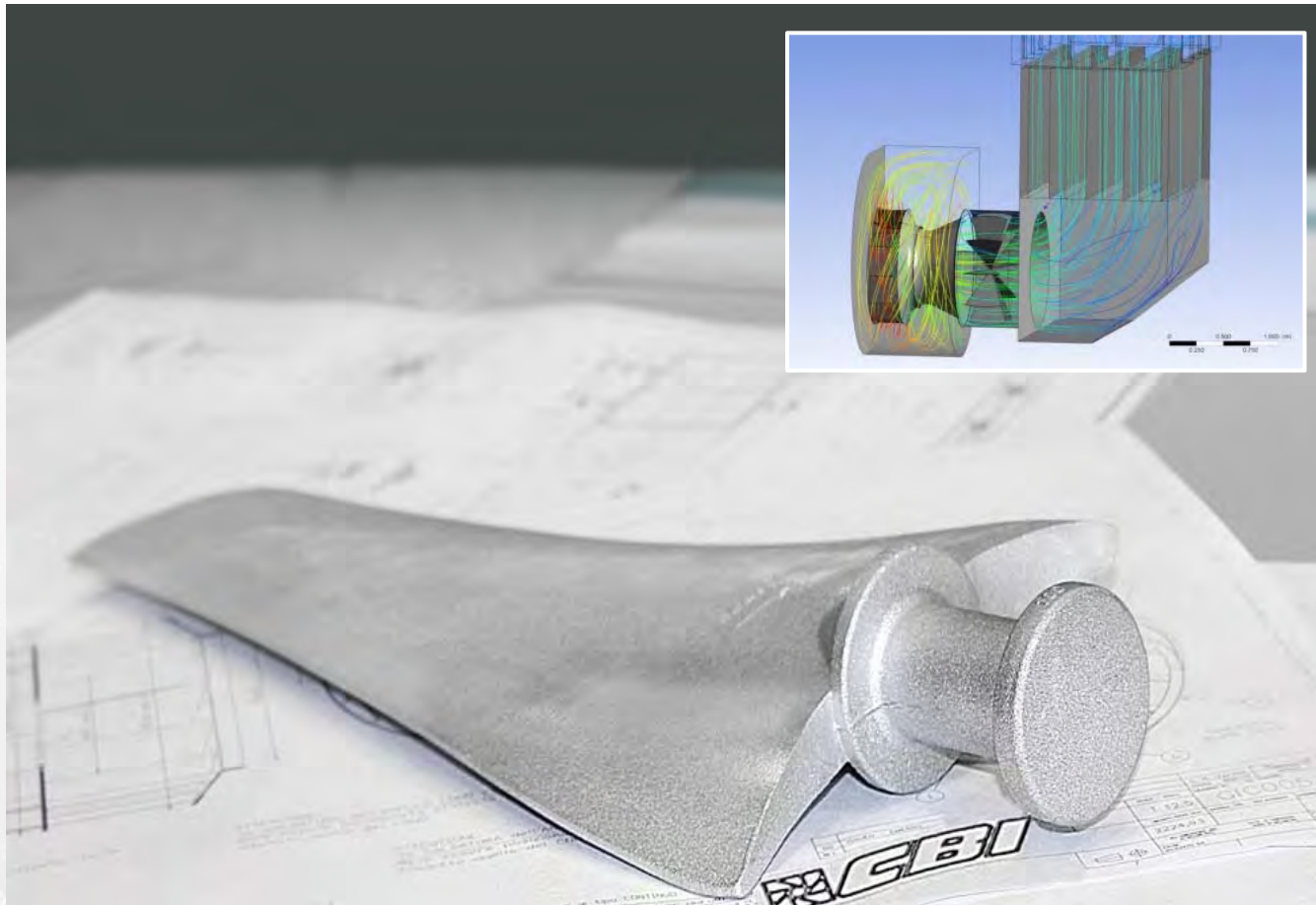
Revamping activities include:

- Increase the aerodynamic performances
- Attenuate the noise levels
- Energy savings
- Increased production
- Increased fan reliability and durability
- Introduction of latest technological innovations
- Compliance to new environmental regulations
- Extend the lifetime against abrasion and corrosion
- Fix Fatigue issue
- Complete overhauling of old fans at our workshop or at installation site

Research & Development



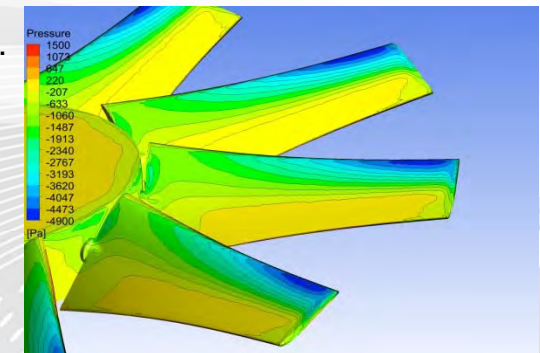
Innovation & Technology

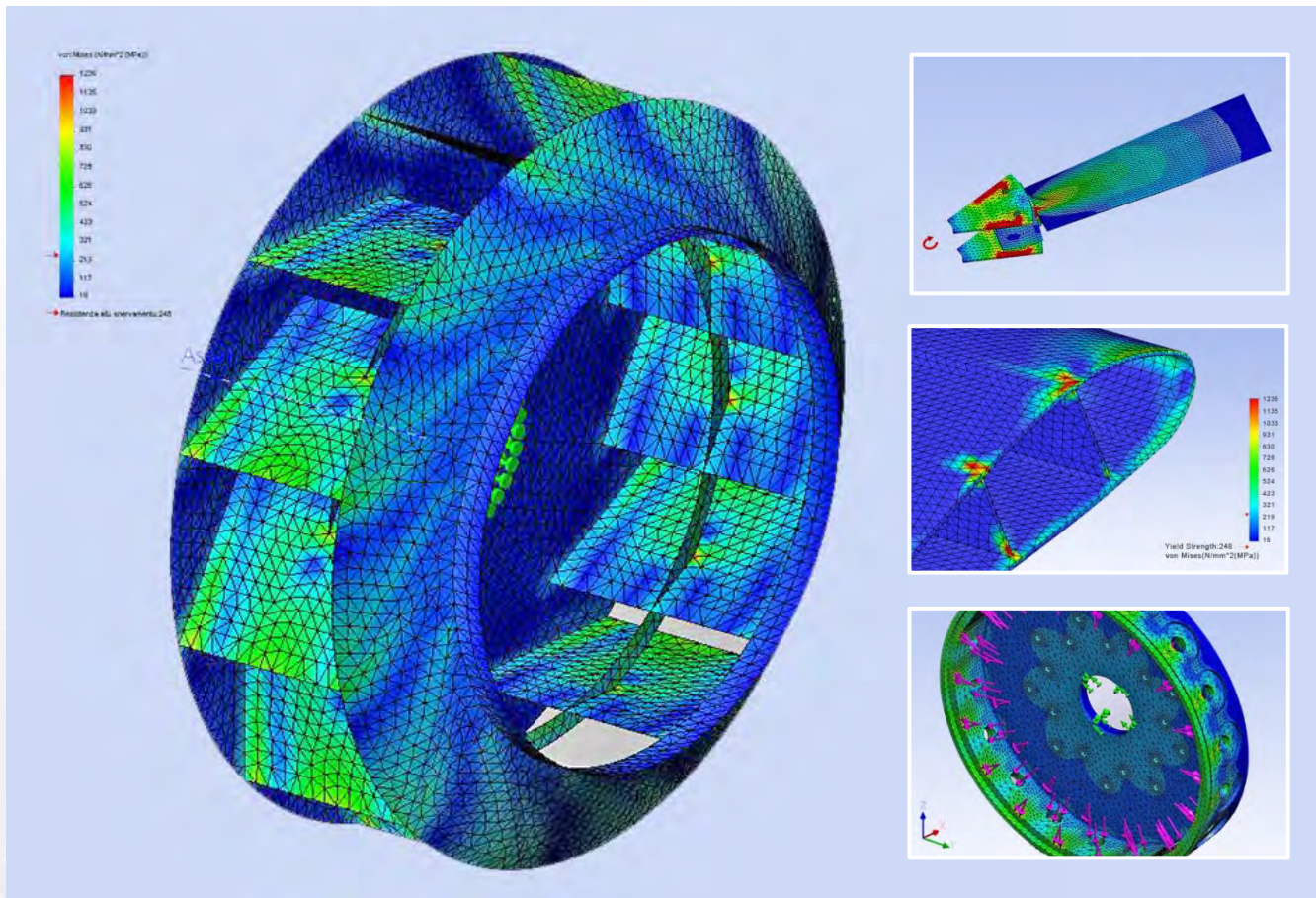


The R&D division of CBI Group is made up of a team of engineers which is used to work with the best design software, prototypes laboratory and several aeraulic test rooms.

The analyzed results of new design are compared to prototype experimental test to confirm our applied theory, in order to provide effective solutions to design and market requirements.

They also use the laboratories to improve performances of products to find new solutions to satisfy all specific requirements of our clients.





FEM analysis is able to predict structural behavior in order to calculate:

- Stress
- Deformations
- Margin of Safety
- Fatigue
- Vibrations spectrum
- Frequency Resonance

CFD software generates aerualic virtual prototypes which enable to investigate design solutions, evaluating aero-dynamic performances of single blades, fans and entire systems.

Laboratory



Innovation & Technology



R&D division is equipped with a sophisticated full automatic test room in Monza plant, projected according to the AMCA standards, where fans up to 710 [mm] of diameter with maximum airflow of 47000 [m³/h] and 5000 [Pa] of pressure can be tested.

Laboratory can operate also with fan scale prototype. The operator drives the test execution from the workstation console, setting the appropriate throat sections by properly opening/closing the tunnel nozzles, so as to generate the characteristic curve of the fan:

- Flow rate
- Pressure
- Efficiency
- Stall area
- All parameter of electric motor

Testing Facilities



Innovation & Technology



We use the test rooms to either perform full or reduced scale test in order to find new solutions for our client's existing installation through testing results, so that our clients can request for revamping.

CBI Group is equipped with:

- Test room for Standard fans
Monza (Italy)
- Test room for Axial fans
Cambiago (Italy)
- Test room for Heavy Duty fans
Gissi (Italy)
- Test room for Heavy Duty fans
Tilff (Belgium)

Certification



Quality represents a constant and essential objective for CBI Group.

Executives, staff and all the employees are committed to the continuous improvement and monitoring of all the activities of the company by constant training, specialized and certified staff, products and services.

All the production sites work within the same Certified Quality System, ISO 9001.
CBV is also certified ISO 14001

The company obtained GOST certification, a mandatory Certificate of Conformity for export to the Russian market.

For equipment intended for use in an environment with an explosive atmosphere we can produce products and machineries in compliance with ATEX guidelines.



Our products also meet the following standards:

- EN
- UNI
- DIN
- API
- ASME
- GOST
- AMCA
- ATEX
- ISO

The CBI Group

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