

# smartfans<sup>™</sup> D series

FAN SERIES COVERING DIAMETERS FROM 7315 MM. (24') TO 12200 MM. (40'), SPECIFICALLY DESIGNED FOR FIELD ERECTED COOLING TOWERS, AIR COOLED HEAT EXCHANGERS AND AIR COOLED CONDENSERS.



## smart**fans**™

The D series belongs to the smartfans family.

Axial Fans Int. has denominated smartfans the fans family which is employing a very innovative patented design for the blade attachment.

Such a blade attachment is causing the blade to be almost insensitive to the alternating loads caused by air turbulence and any other exciting factor.

As a consequence, the vibrations on the plant structure are greatly reduced, thus avoiding to the customers a type of problem which too frequently occurs.

The vibrations problems are generally detected during commissioning, when very little time is available for an action, therefore can lead to delay in a plant delivery.

## PARTICULAR FEATURES

Five different blade profiles, having particular shapes and width, can be used in this fan series.

The possible choice of the profile type associated to the number of blades, has it made possible to better satisfy the customer requirements in a variety of different application, giving preference either to noise reduction or high efficiency.

Any diameter between 24' and 40' can be supplied either for clockwise and counterclockwise rotation.

The blades, which have an adjustable pitch angle, can be assembled easily and as quickly as no other fan in the market.

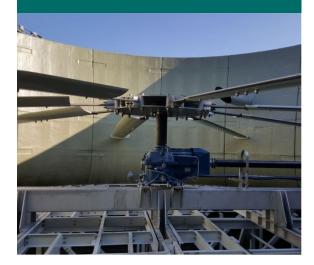
The hub is provided with a conical bushing to shorten the required assembly time.

#### **MATERIALS**

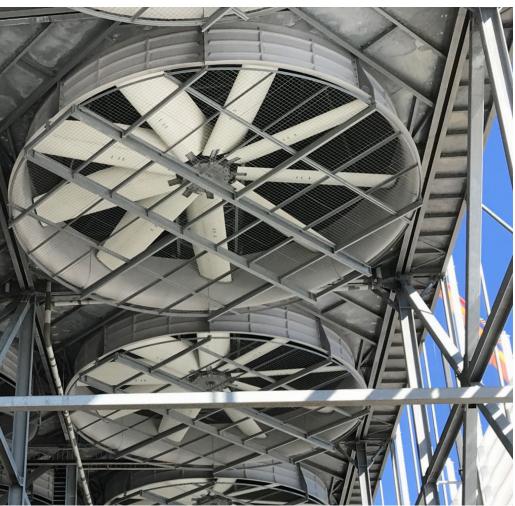
Special attention has been given to use, as a standard, materials resistant to corrosion and when not possible to protect them against corrosion. The hub disc material is hot dip galvanized steel with an epoxy coated central hub boss, whereas the airfoil profile, aluminum alloy or UV resistant and antistatic FRP. For wet cooling tower applications the leading edge of FRP profile is protected by a maintenance free stainless steel sheet. The blade attachments components are hot deep galvanized steel and aluminum alloy. Additional polyurethane coating can be applied to any of the above elements. The fasteners are geomet protected steel but stainless steel can be provided.

These fans can be used in an ambient temperature from -45°C to +80°C with standard materials.

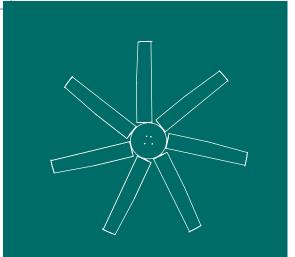
# smartfans<sup>™</sup> D series



28' FRP Fan for CT with aggressive environment - Geothermal Plant



36' FRP Fan for ACC - Power Plant



# smartfans<sup>™</sup> HD series

FAN SERIES COVERING DIAMETERS FROM 3353 MM. (11') TO 7320 MM (24'), SPECIFICALLY DESIGNED FOR FIELD ERECTED COOLING TOWERS, AIR COOLED HEAT EXCHANGERS AND AIR COOLED CONDENSERS.



## smartfans<sup>™</sup>

The HD series belongs to the smartfans family.

Axial Fans Int. has denominated smartfans" the fans family which is employing a very innovative patented design for the blade attachment. Such a blade attachment is causing the blade to be almost insensitive to the alternating loads caused by air turbulence and any other exciting factor.

As a consequence, the vibrations on the plant structure are greatly reduced, thus avoiding to the customers a type of problem which too frequently occurs.

The vibrations problems are generally detected during commissioning, when very little time is available for an action, therefore can lead to delay in a plant delivery

## PARTICULAR FEATURES

Four different blade profiles, having particular shapes and width, can be used in this fan series.

The possible choice of the profile type associated to the number of blades, has it made possible to better satisfy the customer requirements in a variety of different application, giving preference either to noise reduction or high efficiency.

Any diameter between 11' and 24' can be supplied either for clockwise and counterclockwise rotation.

The blades, which have an adjustable pitch angle, can be assembled easily and as quickly as no other fan in the market.

The hub is provided with a conical bushing to shorten the required assembly time.

#### **MATERIALS**

Special attention has been given to use, as a standard, materials resistant to corrosion and, when not possible, to protect them against corrosion.

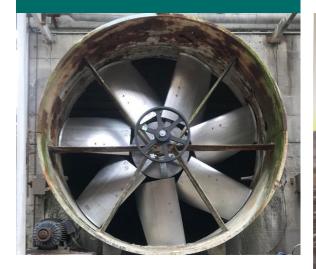
The hub material can be aluminum alloy or electro-galvanized steel, whereas the airfoil profile, aluminum alloy or UV resistant and antistatic FRP.

For wet cooling tower applications the leading edge of FRP profile is protected by a maintenance free stainless steel sheet.

The blade attachments components are hot deep galvanized steel and aluminum alloy. Additional polyurethane coating can be applied to any of the above elements.

The fasteners are geomet protected steel but stainless steel can be provided.

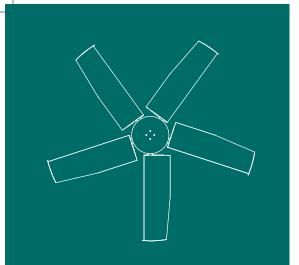
# smartfans<sup>™</sup> HD series



11' Aluminun Fan for low noise horizontal axis CT - Steel Industry



24' Aluminum Fan for ACC - ORC plant



# smartfans<sup>™</sup> STD series

FAN SERIES COVERING DIAMETERS FROM 1829 MM. (6') TO 4877 (16'), SPECIFICALLY DESIGNED FOR PACKAGE COOLING TOWERS AND SMALLER FIELD ERECTED COOLING TOWERS, AIR COOLED HEAT EXCHANGERS AND AIR COOLED CONDENSERS.



### smartfans<sup>™</sup>

The STD series belongs to the smartfans family.

Axial Fans Int. has denominated *smartfans*" the fans family which is employing a very innovative patented design for the blade attachment. Such a blade attachment is causing the blade to be almost insensitive to the alternating loads caused by air turbulence and any other exciting factor.

As a consequence, the vibrations on the plant structure are greatly reduced, thus avoiding to the customers a type of problem which too frequently occurs.

The vibrations problems are generally detected during commissioning, when very little time is available for an action, therefore can lead to delay in a plant delivery.

#### **PARTICULAR FEATURES**

Four different blade profiles, having particular shapes and width, can be used in this fan series.

The possible choice of the profile type associated to the number of blades, has it made possible to better satisfy the customer requirements in a variety of different application, giving preference either to noise reduction or high efficiency.

Any diameter between 6' and 16' can be supplied either for clockwise and counterclockwise rotation.

The blades, which have an adjustable pitch angle, can be assembled easily and as quickly as no other fan in the market.

The hub is provided with a conical bushing to shorten the required assembly time.

#### **MATERIALS**

Special attention has been given to use, as a standard, materials resistant to corrosion and, when not possible, to protect them against corrosion.

The hub material is aluminum alloy, whereas the airfoil profile, aluminum alloy or UV resistant and antistatic FRP.

For wet cooling tower applications the leading edge of FRP profile is protected by a maintenance free stainless steel sheet.

The blade attachments components are hot deep galvanized steel and aluminum alloy. Additional polyurethane coating can be applied to any of the above elements.

The fasteners are geomet protected steel but stainless steel can be provided on request.

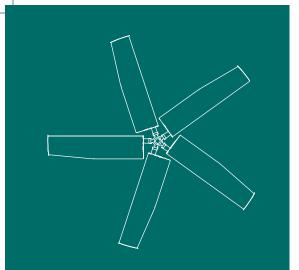
# smartfans<sup>™</sup> STD series



7' Aluminum Autovariable Pitch angle Fan



16' Aluminum Fan for ACC - Distillery Plant



# smartfans<sup>™</sup> SML series

FAN SERIES COVERING DIAMETERS FROM 914 MM. (3') TO 3658 (12'), SPECIFICALLY DESIGNED FOR PACKAGE COOLING TOWERS AND SMALLER FIELD ERECTED COOLING TOWERS, AIR COOLED HEAT EXCHANGERS AND AIR COOLED CONDENSERS.



### smartfans<sup>™</sup>

The SML series belongs to the smartfans family.

Axial Fans Int. has denominated "SMART" the fans family which is employing a very innovative patented design for the blade attachment. Such a blade attachment is causing the blade to be almost insensitive to the alternating loads caused by air turbulence and any other exciting factor.

As a consequence, the vibrations on the plant structure are greatly reduced, thus avoiding to the customers a type of problem which too frequently occurs.

The vibrations problems are generally detected during commissioning, when very little time is available for an action, therefore can lead to delay in a plant delivery.

## PARTICULAR FEATURES

Four different blade profiles, having particular shapes and width, can be used in this fan series.

The possible choice of the profile type associated to the number of blades, has it made possible to better satisfy the customer requirements in a variety of different application, giving preference either to noise reduction or high efficiency.

Any diameter between 3' and 12' can be supplied either for clockwise and counterclockwise rotation.

The blades, which have an adjustable pitch angle, can be assembled easily and as quickly as no other fan in the market.

The hub is provided with a conical bushing to shorten the required assembly time.

### **MATERIALS**

Special attention has been given to standard materials of construction that are either corrosion resistant or protected from corrosion.

The hub material is aluminum alloy and the airfoil profile is either aluminum alloy or UV resistant and antistatic FRP.

For wet cooling towers applications, leading edge protection of the FRP profile is provided by maintenance free stainless steel armor.

The blade attachments components are hot deep galvanized steel .

Additional polyurethane coating can be applied.

The fasteners are geomet protected steel but stainless steel can be provided on request.

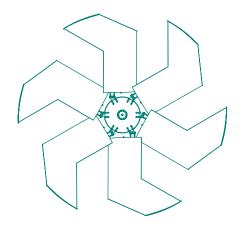
# smartfans<sup>™</sup> SML series



6' Aluminum Fan for AFC - Foundry Plant

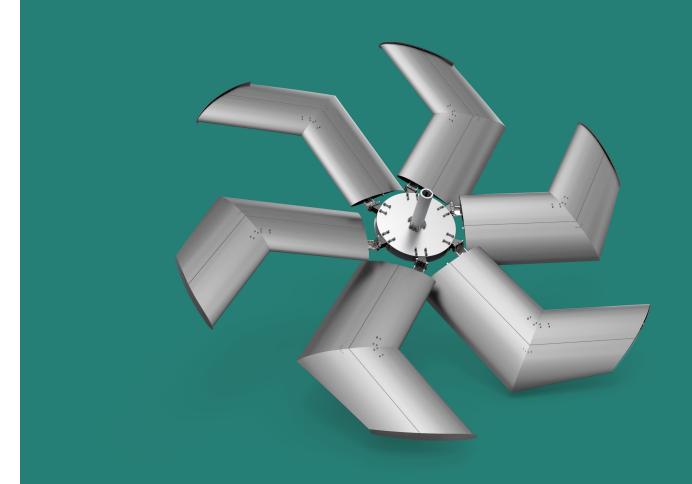


6' Aluminum Fan for AFC - Petrochemical Plant



# stealthfans<sup>™</sup> REM series

FAN SERIES COVERING DIAMETERS FROM 1829 MM. (6') TO 12192 (40'), SPECIFICALLY DESIGNED FOR VERY LOW NOISE APPLICATIONS.



## stealthfans<sup>™</sup>

The Stealthfans series is based on a patented technical solution which is the fruitful result of a two years research program of AFI. It is actually representing the most advanced product in the field of very low noise axial fans for cooling and ventilation equipment because it has resolved the big handicaps that have not allowed the use of low noise axial fans to spread out.

In fact the *stealthfans* series is the only series of low noise fans that, beside the low noise feature, is offering all together:

- High efficiency, better than that of an average regular noise fan. The power consumption is more and more important today and many customers are refrained to extend the use of very low noise fans for the related operational extra cost due to higher power consumption;
- Low weight, lower than that of an average regular noise fan;
- Reduced amount of space requirement in the axial direction;
- Very reasonable cost compared with that of a regular noise fan

It is very important to note that as the efficiency, weight and axial space requirement, can be considered in general equivalent to a regular noise fan, the **stealthfans** are unique, in giving our customers the possibility to offer their standard equipment with a very low noise option.

#### **SMART FEATURES**

The *stealth*fans<sup>™</sup> have been developed in a way to give the possibility to use Axial Fans Int. technology, which has been already applied to the regular noise AFI fans. Therefore the *stealth*fans<sup>™</sup> are also belonging to the *smartfans*<sup>™</sup> family.

The AFI fans family is employing a very innovative patented design for the blade attachment is causing the blade to be almost insensitive to the alternating loads caused by air turbolence and any other exciting factor.

As a consequence the vibrations on the plant structure are greatly reduced, thus avoiding to the customers a type of problems which too frequently occurs. The vibrations problems are generally detected during commissioning, when a very little time is available for an action, therefore can lead to delay in a plant delivery.

#### OTHER FEATURES

Three different blade profiles, having particular shapes and

width, can be used in this fan series.

The possible choice of the profile type associated to the number of blades, has it made possible to better satisfy the customer requirements in a variety of different applications, giving preference either to noise reduction or high efficiency.

Any diameter between 6' and 40' can be supplied either for clockwise and counterclockwise rotation.

The blades, which have adjustable pitch angle, can be assembled easily and as quickly as no other fan in the market. The hub is provided with a conical bushing to shorten the required assembly time.

Special attention has been given to use, as a standard, materials resistant to corrosion and when not possible to protect them against corrosion. The hub disc material is hot dip galvanized steel with an epoxy coated central hub boss, whereas the airfoil profile, aluminum alloy or UV resistant and antistatic FRP. For wet cooling tower applications, the leading edge of FRP profile is protected by a maintenance free stainless steel sheet. The blade attachment components are hot dip galvanized steel and aluminum alloy. Additional polyurethane coating can be applied to any of the above element. The fasteners are geoment protected steel but stainless steel can be provided. These fans can be used in an ambient temperature from -45°C to +80°C, with standard materials.

# stealthfans<sup>™</sup> REM series



7' Aluminun Low Noise Fan for CT - Civil Application



11' Aluminum Low Noise Fan for CT - Civil Application