**Design:**

[**https://www.obdevsite.com/samples/hunter-industrial-fans/design/**](https://www.obdevsite.com/samples/hunter-industrial-fans/design/)

**Keywords:**

how to calculate the CFM of a fan (300)

calculate CFM of fan (450)

**Body Copy**

calculating CFM of a fan (450)

calculate fan CFM (450)

fan CFM calculator (400)

# H1: How to Calculate the CFM of an Industrial Fan

Posted By: Brad Kinnison | Date

**BLOG PAGE IMAGE (1)**

A picture containing mechanical fan, fan, ceiling fan, indoor

Description automatically generated

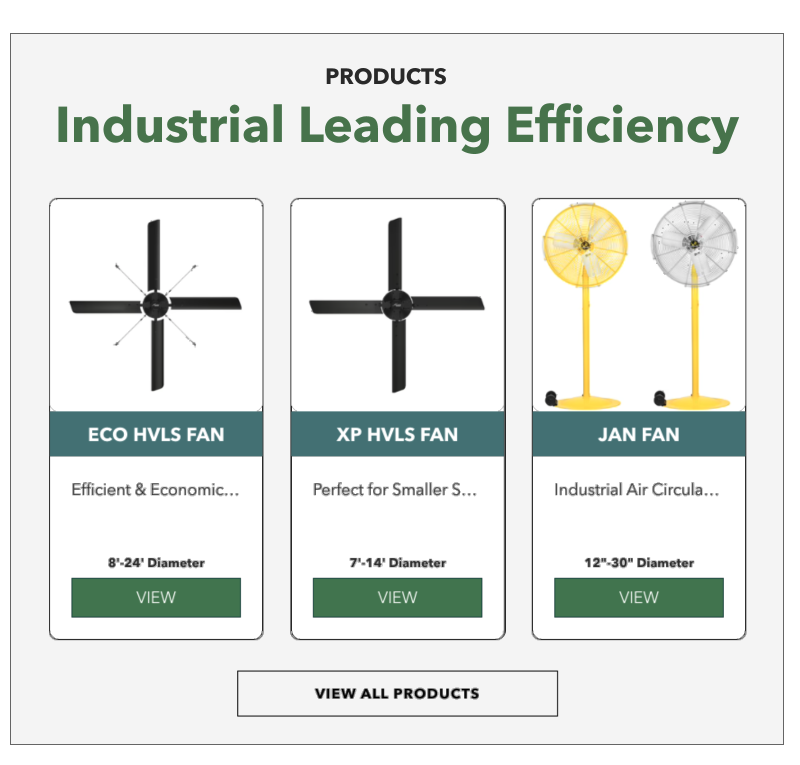
Table of Contents

* Heading 1
* Heading 2

Whether you're an HVAC technician or a DIY enthusiast, understanding the cubic feet per minute (CFM) of a fan is an essential skill. CFM measures the amount of air a fan can move, which is critical for choosing efficient ventilation systems. In this article, we will explain the concept of CFM, dig into why it is important and how it is calculated, and discuss if it is the most important factor in determining what industrial ceiling fan is best for you!

## H2: What are Industrial Fans?

First off, let’s discuss what industrial ceiling fans are. Industrial ceiling fans are large diameter fans, commonly known as High-Volume, Low Speed (HVLS) fans, that move a tremendous amount of air at low rotational speed. These large fans are very cost-efficient to operate and make your business space feel up to 10°F cooler. This cooling effect contributes directly to energy savings, employee retention, and an overall safer, more comfortable working environment.

****

**OR IMAGE**

## H2: What is the Importance of CFM for HVLS Fans?

**BLOG PAGE IMAGE (2)**

**A ceiling fan in a warehouse

Description automatically generated with medium confidence**

So, what sets one HVLS fan apart from another? And how do you know if a certain fan is right for you? The truth is, there are many factors to consider (we will get into some of those later), but one easy metric to know is the fan’s CFM number, which lets you gauge how powerful a fan is. This number tells you how much air the fan can move in a given period of time. For reference, let’s take the Hunter Original, a residential ceiling fan you might find in your living room or bedroom. This fan can generate 6,716 CFM of airflow at high speed, which is more than sufficient for your house. On the other hand, look at the Hunter Titan HVLS ceiling fan, which measures 24 feet in diameter at the largest size. At high speed, this fan generates 316,000 cubic feet per minute of airflow!

**LEARN MORE:**

<https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/what-are-hvls-fans-1>

### H3: Air Changes Per Hour

Why does all this matter? Well, to maintain a safe, comfortable environment, it is important for the air inside a room to be regularly exchanged to not get stuffy and stagnant. The concept of using ventilation and airflow to change the air inside an area is measured in Air Changes Per Hour, or ACH. To know how what ACH rate is necessary for different environments, we look to the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). ASHRAE recommends that residential homes need .35 Air Changes Per House, and warehouses, depending on their size, need between 6 and 30! Small ceiling fans simply will not deliver the cooling effect you need in your industrial or commercial setting.

## H2: How to Calculate CFM of a Fan.

Simply put, CFM is the measurement of how much air moves over a certain point in a minute, and it is measured in cubic feet, meaning one foot by one foot by one foot. To properly measure the exact amount of air moving through this area, testing must be done in a laboratory that is designed specifically to measure airflow.

Generally speaking, the larger the fan diameter and the faster it spins, the more cubic feet of air it will be able to move. The thing that makes HVLS fans so helpful is that they don’t need to spin all that fast to move an impressive amount of air.

**BLOG PAGE IMAGE (3)**

**A picture containing airplane, plane, aircraft, aerospace manufacturer

Description automatically generated**

H2: AMCA Certified HVLS Fans

So now you know that CFM is used to measure how much air a fan is capable of moving, but how do you trust the numbers that an industrial fan manufacturer advertises? If the testing must be done in a special lab, how do you know if the numbers are accurate? The truth is, when measuring CFM, it is easy to make the airflow seem more impressive by testing right next to the fan blades. But that reading is not helpful considering that HVLS fans are usually hung 20-30 off the ground.

Thankfully, this is where third party verification comes in. The Air Movement and Control Association (AMCA) is one of the most highly regarded international, not-for-profit organizations in the air movement and control industry. If an HVLS fan is AMCA Certified, it means that the numbers advertised reflect the actual capabilities of the fan. In the scenario outlined above, this means that the CFM measurement was taken at floor level, rather than right next to the fan blades, and more accurately, reflects the fan’s capabilities.

YOU MAY ALSO BE INTERESTED IN:

<https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/hunter-titan-industrial-hvls-fan>

### H3: AMCA Accredited Laboratories

So, what about the HVLS fan laboratories we’ve mentioned a few times? These obviously need to be state-of-the-art facilities staffed by airflow experts. But AMCA also offers a program to third-party accredit the lab itself. If a fan is engineered and tested in an AMCA certified laboratory, it adds another level of certainty. There are only a handful of AMCA accredited HVLS fan laboratories in the country, one of which is located at the Hunter Industrial & Commercial headquarters in Smyrna, TN.

**BLOG PAGE IMAGE (4)**

**A picture containing building, footwear, indoor, wall

Description automatically generated**

Learn More:

<https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/top-5-benefits-of-hvls-fans-for-warehouses>

H2: Is CFM the Only Thing That Matters?

As we have outlined, understanding the CFM of an industrial fan is a critical aspect of choosing the right piece of machinery to meet your needs. That being said, it is only one of many different things to consider. The size of your building, fan spacing, ceiling height, and other factors must be considered as well. [Check out our Industrial Ceiling Fan Buying Guide to learn more!](https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/industrial-hvls-ceiling-fan-buying-guide-how-to-choose-the-best-industrial-ceiling-fan)

### H3: Choose the Right HVLS Fan Manufacturer

Installing HVLS ceiling fans in your building is an effective way to assure your business stays comfortable, safe, and productive. By partnering with Hunter Industrial & Commercial, you can rest easy knowing that you have installed the highest quality fans available. But we know it goes beyond just making a great product. Our Titan, ECO, and XP HVLS fans come standard with a Limited Lifetime Warranty, and we proudly offer ten-day lead times. Our experts are ready to walk you through the process from order and delivery to installation and maintenance. Give us a call today!

**BUTTON: GET A QUOTE**

FAQ – Question: What is CFM?

FAQ - Answer: CFM stands for Cubic Feet per Minute, and it is a measurement of how much airflow a fan can produce. The higher the CFM, the more air is being moved.

FAQ - Question: What is a goof CFM for a fan?

FAQ - Answer: This entirely depends on the application. For a residential fan you might have in your living room, a CFM of 5,000-6,000 might be totally sufficient. For large warehouses, you might want a fleet of large-diameter HVLS fans that each have a CFM of over 300,000.

FAQ - Question: What is AMCA certification for HVLS fans?

FAQ - Answer: AMCA is a third-party organization that certifies product performance. If an HVLS fan is AMCA certified, it means you can trust the product will perform how it is advertised to perform.

Related Articles:

* Relevant Blog Article #1 - Link: <https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/which-industrial-fan-is-best-for-you>
* Relevant Blog Article #2 - Link: <https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/what-are-hvls-fans>
* Relevant Blog Article #3 - Link: <https://industrialfans.hunterfan.com/blogs/hunter-industrial-blog/industrial-hvls-ceiling-fan-buying-guide-how-to-choose-the-best-industrial-ceiling-fan>