

What is centrifugal suction fan? Application in life and production

Centrifugal exhaust fans are one of the series of ventilation fans that are widely used in many areas of life such as manufacturing.

Like axial fans, centrifugal exhaust fans are one of the most widely used ventilation fans today. So how is this device structured? How does the principle work? TipsMake.com will help you answer these questions!

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What is centrifugal suction fan? Structure and principles of operation

Centrifugal fan is a type of fan that draws air along the axis based on centrifugal force. Depending on the criteria, one can divide centrifugal fan into different types such as:

1. According to the structure: Centrifugal fan has direct motor movement and motor movement indirectly with belt set completely outside.
2. According to flow and pressure: Low pressure centrifugal fan, medium pressure centrifugal fan and high pressure centrifugal fan.

Constructing centrifugal fan

Centrifugal fans are designed with 4 main parts including fan blades, impellers, transmission system and motor.

1. **Fan cover:** Usually made from rust-free metal coated with electrostatic paint. The task of the fan casing is to simultaneously support the connection between the fan and the installation position. In addition, the fan shell also helps minimize the vibration and noise of the engine during operation.
2. **Centrifugal impellers :** Balanced dynamically by a digital control system, ensuring the fan runs smoothly and without shaking.
3. **Drive system:** It is tasked to connect the motor with the propeller tail in the suction door. Belts are usually made of high quality, durable rubber.

4. **Motor** : Is the part that creates the movement of centrifugal fan.

Principle of centrifugal fan operation

Step 1 : Centrifugal fans work on a very simple principle. Specifically:

Step 2 : When the rotor rotates, the pressure at the center of the fan is small, the air will enter the center of the fan and here they will be energized by centrifugal force.

Step 3 : Roto draws air along the fan shaft, thanks to centrifugal force surrounding the fan casing and pushes the wind towards the fan shaft.

Step 4 : Dust air is pushed into the dust collector.

Step 5 : The reel creates pressure and transfers air into the machine.

Step 6 : Fan casing converges and redirects air flow to the inside.

Step 7 : Propeller centrifugal air flow and push air containing dust, toxic gas out of the fan in the same direction.



Fan centrifugal suction

Application of centrifugal exhaust fans in life and production

The introduction of **centrifugal fan** has brought us many benefits, from the fields of life to production and business activities:

1. Used to vacuum dust, heat, chemical vapors in steel boilers and boilers
2. Blowing fresh air for tunnel construction
3. Exhausting exhaust can generate small and fine dust in enamel lines of a brick factory or for grinding, cutting machines, planers
4. Ventilate the basement or where a direct ventilation fan cannot be installed
5. Suction central air conditioning, pressure regulating bridge
6. Air supply for incinerators and boilers

7. Fresh air supply and exhaust gas for restaurants, hotels, .



Centrifugal fans are widely used in life and production

Some samples of the most popular centrifugal fans are today

1. Smoke suction booster centrifugal fan HAIKI HK71-2.5A-1.1

HAIKI HK71-2.5A-1.1 is the perfect choice for ventilation, smoke, cooling needs in factories or large areas. The fan owns a direct drive motor and is made of high-quality materials such as stainless steel, CT3 steel, etc. Thus, it can operate strongly, endlessly, withstand the pressure of operation for a long time and continuity. **Reference price: VND 4,070,000.**

Specifications:

1. Wind flow: 1500 - 2500 m³ / h
2. Pressure: 500 - 750 Pa
3. Capacity: 1100W
4. Voltage source: 380V



Smoke suction booster centrifugal fan HAIKI HK71-2.5A-1.1

2. Smoke suction booster centrifugal fan HK71-3.2A-2.2

Haiki HK71-3.2A-2.2 operates in one-way with the main functions including exhausting of stagnant air, pollution, dust in space and discharging it, combined with air-conditioning system for use. in the basement, smoke in the kitchen, barbeque restaurants, factories . Fan motors work smoothly, helping to minimize noise at the lowest level.**Reference price: VND 6,220,000.**

Specifications:

1. Air flow: 3800 - 4800 m³ / h
2. Pressure: 850 - 950 Pa
3. Capacity: 2200W
4. Voltage source: 380V



Smoke suction booster centrifugal fan HK71-3.2A-2.2

Hopefully, the article of TipsMake.com will help you better understand the structure, operation principles as well as application of **centrifugal exhaust fan** in life and production. Visit META.vn for advice and order quality and cheap products.

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