

Processing technology shake the dust by vibrating air bag

Fabric bag filter is a device used in the very popular for the treatment of difficult to remove fine dust from the air.

Principle of operation.

Air filters should be put into the hopper dust bag and follow the pipe from the inside out or from the outside to go to the gas manifold and clean out. When the dust had more grip on the inside or the outside of the sleeve makes their resistance increases affect filter performance, we conducted reverted by hanging by mechanical vibration or pneumatically. For mechanical vibrations shake the dust is trapped inside. If vibration rinsing with high pressure compressed air, dust outside push unwind, fall down.

Filter efficiency reached 99.8% and the particle filter is very small layer of filter aid is due. After one period of very thick layer of dust will make resistance of the membrane is too large, we have to stop for gas passing through and proceed to remove the dust layer on the surface of the fabric. This operation is called revert filtering capabilities.

Equipment bag filter fabric usually placed behind the dust filter equipment mechanics to keep the dust mites that mechanical filtration process was not retained. When coarse particles were separated completely, the amount of dust in the bag will keep diminished. Some applications of the bag is in the cement plants, incinerators, furnaces and steel mill grain.

Material of filter cloth bag filter device:

- Cotton: taking good filter and low price but not chemical resistance and heat, flammable and contains high humidity.
- Cloth: has the ability to penetrate large gas, ensuring clean and easy to restore stability, unstable temperature. - - The maximum allowed temperature is 90°C.
- Synthetic Fabrics: Resistance to heat and chemicals, low price. In the acidic environment of high durability even in alkaline strength reduced.
- Glass Fabric: temperature strength of 150 - 350°C. They are made of glass or aluminum silicate glass does not contain magezit.

Fabric filters must satisfy the following requirements:

- The ability to contain dust and after recovery to ensure high filtration efficiency.
- Keep the ability to optimize air through.
- There is a high mechanical strength and high temperature corrosive environments.
- Capable of high recovery
- Lower cost.

The scope of application.

- Can be used to shrink cement dust but rather regular bag
- Handling of fine dust, not used for dust and dirt adhesion properties greasy.

Pros and cons of the device:

- Advantage:

High filtration efficiency from 98-99%, applied to many different types of dust.

- Cons:

Do not use lubricants dust; investment costs high operating.

Preliminary calculation device:

The area of filter cloth:

with Q: air flow into the equipment

q: the ability of the filter cloth ($q = 130\text{--}200 \text{ m}^3 / \text{m}^2\cdot\text{h}$).

size bag:

for $D = 125\text{--}300 \text{ mm}$, $h = 2 \text{ to } 3.5 \text{ m}$

$F_{\text{tui}} = .d. H$

Calculate the number of bags:

$n = F(\text{cloth}) / F(\text{bag})$

```
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'text/javascript'; po.async = true; po.src = 'https://apis.google.com/js/plusone.js'; var s =  
document.getElementsByTagName('script')[0]; s.parentNode.insertBefore(po, s); })();
```

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(function(d, s, id) { var js, fjs = d.getElementsByTagName(s)[0]; if (d.getElementById(id)) return; js =  
d.createElement(s); js.id = id; js.src = "//connect.facebook.net/de_DE/all.js#xfbml=1";  
fjs.parentNode.insertBefore(js, fjs); }(document, 'script', 'facebook-jssdk'));
```

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