High oxygen Aerator Membrane
Fine bubble Disc Diffuser

DESCRIPTION | SPECIFICATIONS | WORKING PRINCIPLE | CONNECTOR | APPLICATION
High oxygen Aerator Membrane Fine bubble Disc Diffuser features a unique split pattern and slit shapes, which can disperse air bubbles in an extremely fine and uniform pattern for high oxygen transfer efficiency.

A much highly effective and integrated check valve enables the aeration zones to be easily shut down for air-on/air-off applications.
We provide the best way to your business.

Disc Bubble Diffuser

1. screw Connection
2. check valve
3. Flexible rubber membrane
4. diffuser gland
5. disc diffuser
6. supporting disk

3/4寸螺纹
3/4 inch thread

Air duct

Install plug-in

Schematic diagram of aeration installation
We provide the best way to your business.

215mm

260mm

300mm
<table>
<thead>
<tr>
<th>Model</th>
<th>215mm</th>
<th>260mm</th>
<th>300mm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>8 inch</td>
<td>9 inch</td>
<td>11.8 inch</td>
</tr>
<tr>
<td><strong>Bubble Type</strong></td>
<td>Fine bubble</td>
<td>Fine bubble</td>
<td>Fine bubble</td>
</tr>
<tr>
<td><strong>MOC</strong></td>
<td>EPDM/Silicon /PTFE membrane</td>
<td>EPDM/Silicon /PTFE membrane</td>
<td>EPDM/Silicon /PTFE membrane</td>
</tr>
<tr>
<td></td>
<td>Strengthened PP+GF(glass fiber) carrier plate</td>
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<td>Strengthened PP+GF(glass fiber) carrier plate</td>
</tr>
<tr>
<td><strong>Connector</strong></td>
<td>3/4 NPT</td>
<td>3/4 NPT</td>
<td>3/4 NPT</td>
</tr>
<tr>
<td><strong>Bubble Size</strong></td>
<td>1-2mm</td>
<td>1-2mm</td>
<td>1-2mm</td>
</tr>
<tr>
<td><strong>Flow Range</strong></td>
<td>1-6m³/h</td>
<td>1-8m³/h</td>
<td>1-10m³/h</td>
</tr>
<tr>
<td><strong>Slit Quantity</strong></td>
<td>5000</td>
<td>8900</td>
<td>10000</td>
</tr>
<tr>
<td><strong>Service Area</strong></td>
<td>0.2-0.64m²</td>
<td>0.25-1.0m²</td>
<td>0.3-1.2m²</td>
</tr>
<tr>
<td><strong>Service Life</strong></td>
<td>&gt;5 year</td>
<td>&gt;5 year</td>
<td>&gt;5 year</td>
</tr>
</tbody>
</table>
WORKING PRINCIPLE
Aeration is a method of making air and water come into severe contact. The purpose is to dissolve the oxygen in the air in the water, or to remove the unnecessary gas in the water. The body and volatile substances are exiled into the air.

According to the double membrane theory, there are gas and liquid films at the "gas-water" interface, and air and liquid flow outside the gas and liquid films, which is a turbulent state; the laminar state between the gas and liquid films, There is no convection, and pressure gradient and concentration gradient will appear under certain conditions.

There are two types of aeration: one is blast aeration, and the other is mechanical aeration. Blast aeration is an aeration method that uses an aeration blower, an aerator, and a diffuser plate or a diffuser to introduce air bubbles into the water.

Generally, this method is used for wastewater treatment in ethylene plants. Mechanical aeration refers to the aeration method of introducing bubbles using instruments such as impellers.

All aeration equipment should meet the following three functions:
① generate and maintain effective gas-water contact, and maintain a certain dissolved oxygen concentration in the water under the condition that biological oxidation continuously consumes oxygen;
② in the aeration zone Generate sufficient mixing and circulating flow of water;
③ Maintain sufficient speed of the liquid so that the biological solids in water are in suspension.
04
CONNECTOR
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We provide the best way to your business.
Installation Steps

Manvac Side Channel Blower

Connector is glued to the air collecting pipe. PS: Glue Recommendation: UPVC Glue.

Install fine bubble diffuser

Install air collecting pipe

Drill holes in connector and pipe connections

Done
WASTE WATER TREATMENT/SEWAGE TREATMENT

◆ Sewage treatment mainly equip side channel blower to increase oxygen in the aeration tank, accelerate the growth of aerobic microorganisms, thereby purify the waste water. Side channel blower is crucial for sewage treatment, it will directly determine energy consumption and the function.

Water treatment mainly contains of:
- Industrial waste water treatment
- Sanitary sewage treatment
- Underground/Buried wastewater treatment
2MV series:

- 2MV 320 H36, 1.3KW
- 2MV 420 H36, 1.6kw
- 2MV 420 H46, 2.2kw
- 2MV 520 H46, 3.0kw
- 2MV 710 H37, 4.0kw
- 2MV 830 H17, 5.5kw
- 2MV 720 H37, 4.3kw
- 2MV 720 H47, 5.5KW
- 2MV 720 H57, 7.5kw
- 2MV 820 H37, 11kw
- 2MV 820 H47, 15kw

Sanitary wastewater treatment plant
WASTE WATER TREATMENT/SEWAGE TREATMENT

4MV series:

- 4MV 220 H26, 0.81kw
- 4MV 410 H16, 1.1kw
- 4MV 220 H56, 1.5kw
- 4MV 520 H26, 2.2kw
- 4MV 420 H56, 3.3kw
WASTE WATER TREATMENT/SEWAGE TREATMENT

Industrial waste water treatment plant

MANVAC blower 2MV 710 H37 4KW, with matching Ail filter & Pressure Relief Valve

2MV 820 H47, 15kw

2MV 420 H46, 2.2kw
Mobile Wastewater Treatment Plants
2MV 520 H46, 3KW

2 unit Manvac blowers  2MV 940 H37, 20KW
under installation
WASTE WATER TREATMENT/SEWAGE TREATMENT

How to select the correct blower model for waste water/sewage treatment?

Pre-sales Basic conditions we should to know:

1. Sewage Type:
   - industrial sewage
   - sanitary sewage
   - Buried sewage
   - chemical sewage

2. Aeration Methods:
   - aeration disk
   - micro aeration pipe
   - PVC perforated □ aerator □ others

3. Area of the sewage Treatment Tank: ( L\*W\*H )
4. The depth from the aeration to the surface of the water;
5. The Proportion of the Sewage; The numbers of the blasting aeration pool;
6. The capacity of the sewage Treatment system;
7. Diameter of the aeration disk (mm); Qty of the aeration disk;
8. The Length of the aeration pipe;
PACKING SIZE

260 mm
Carton Size:
67*47*31cm
About 26 pcs each carton
G.W.: 15 kgs

Please note: This carton for diameter 300mm can pack 19 pcs each carton

300mm
Carton Size:
70*61*33cm
About 25 pcs each carton
G.W.: 20 kgs

Connector
Carton Size:
60*40*30cm
About 200 pcs each bag
G.w.: 13 kgs
We provide the best way to your business.
Thank you!

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