Fine Bubble Diffuser

Data Sheet

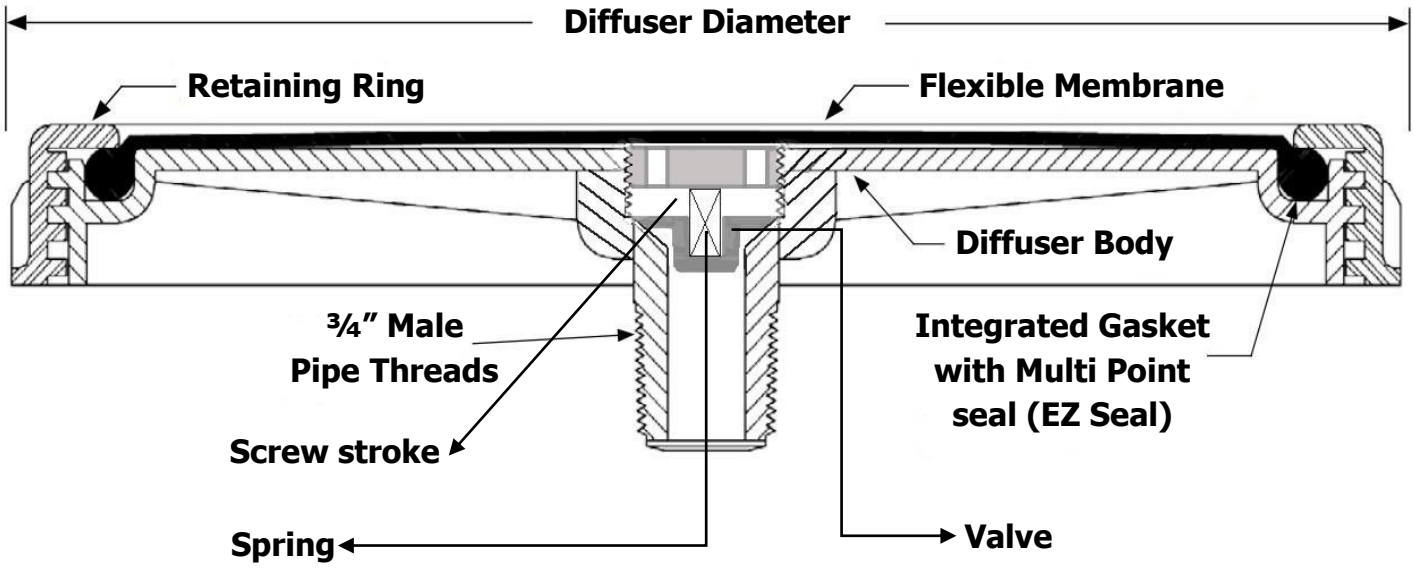
CE CERTIFICATE

ISO 9001 CERTIFIED

Flexible Disc Diffuser – KFD 320

Specifications

Installation drawing



Dimensions

Diameter total/effective	Height	Overall height membrane top of tube	Perforated area	Thread	Check valve
310/242 mm	57 mm	46 mm	0,045 m²	3/4"	Optional

Material

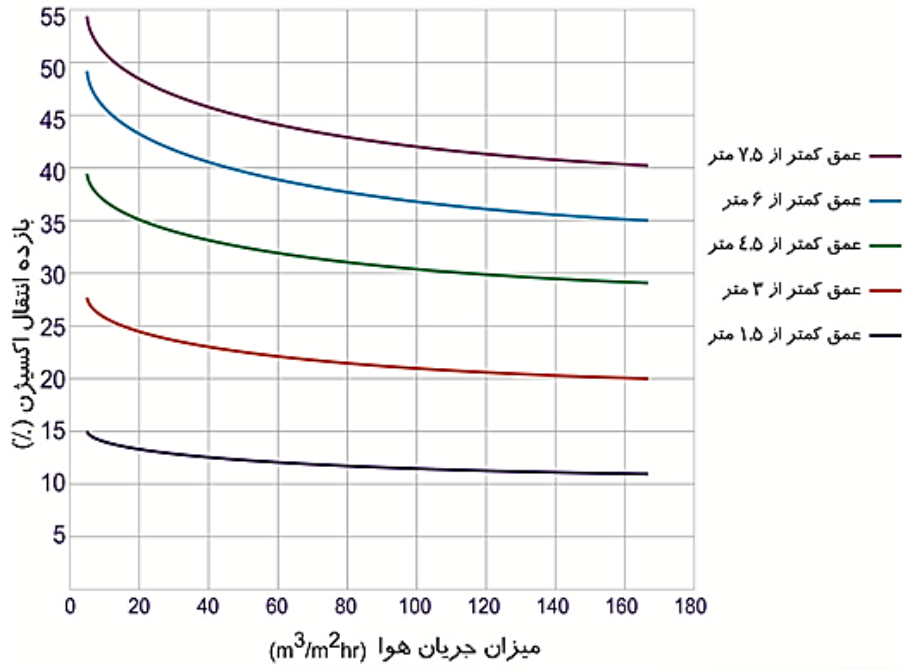
Rubber Membrane Layer	Body Material
Ethylene Propylene Diene Monomer Rubber (EPDM)	Polypropylene with 30% Glass Fiber (PP + GF30%)

Air Flow

Air flow rates at standard operation conditions	max overload/ maintenance air flow rate	Operating temperature	Operation mode	Application
6 m³/h	10 m³/h	0 – 80 °C	Intermittent continuous	Municipal wastewater

Specifications

Standard oxygen transfers efficiency (SOTE) and head loss for KD 320



Terms & Maintenance

It should be noted that diffusers have to be stored in a dark dry place before installation in project and work environment and it should not be exposed with air, soil and especially sunlight.
UV radiation of sunlight has an absolute destructive impact on diffusers membranes and removes elastic feature of membrane (rubber membrane layer).
According to DIN 7716, sunlight, heat, dust and freezing are the key effective factors to the rubber applied for the membrane diffusers. Therefore, strongly avoid releasing diffusers in sites of projects and pools before installation and water drain. And when installing at the project site, cover it with special clothes or plates insulated against sunlight (UV radiation) and dust. It is suggested to be covered by tarpaulin fabric (water proof fabric).
Note that diffusers have to be stored in warehouses under the mentioned conditions not exceeding than one year until installing outdoors.

Periodic Service conditions

Diffusers have to be examined and serviced in given intervals for their long time optimized usage. To do so, it is recommended to disable all the aeration

Systems and discharge the pools in order to reach the diffusers easily for washing and checking.
The most effective way for washing out the sediments and the remained deposits on the diffusers, is acid wash for which formic acid is recommended.

1- Softly wash the membranes by a fine brush or sponge in order to open the ventilating pores on the membranes then use water jet to complete top layer of the diffusers (consider the gap between the nozzle of water jet and diffuser is 50cm and is essential and will lead to the membrane damage if not considered). After washing the top layer of the membranes, formic acid will be used for disposing the remained sediments. In aeration system an input or a cover is designed after blower in order to inject acid (care must be taken when injecting acid into the aeration system, the blower must be off and must be the rout for the acid flow into the diffusers as formic acid may damage the blowers. In addition, you should make assure about the fittings, valves and aeration system resistance against acid.

2- 85% Formic acid will be injected into the aeration system and it will be switched on after tightening the covers in order to discharge acid from diffusers (maximum time of aeration is not allowed to be longer than 30 min's)

Do not use any chemical except formic acid to avoid damaging the diffuser membrane.
Caution should be paid for clean in all the pipes, fittings and all the aeration system when designing and installing the system. You should assure that all the transmit lines are free of any dust or filings.
To increase the diffusers` efficiency and lifetime, it is recommended to do washing and acid washing process twice a year
There should paid enough attention the aeration level for each diffuser which is designed based on the threshold of the product

Regular service, accurate aeration pressure and principal maintenance of diffusers will raise the lifetime of membrane or membrane layer and prevent out guarantee of the products.