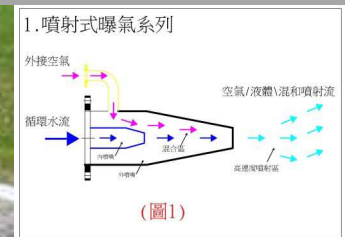


# JET AERATION MIXER



Create, Service, Quality, Win-Win

# JET AERATION MIXER

## Functions and features

This equipment uses internal water for circulation. The liquid is injected into the JET inner chamber, and then injected into the JET outer chamber through the inner nozzle to mix with the external air. The speed of the liquid through the inner nozzle is 6~10M/sec. At this time, the air will be cut into tiny bubbles by the high-speed water flow to achieve a high-volume solution effect. **This is the first stage of JET's oxygen holding effect,**

The air-water mixed liquid is averaged through the outer nozzle and sprayed horizontally from the JET outer nozzle. The water around the outer nozzle produces optimal mixing due to disturbances. At this time, tiny bubbles roll up slowly and reach the dissolved oxygen effect. This is **the second stage of JET's oxygen holding effect.**

The principle is that **JET** can improve the efficiency of oxygen transfer and provide excellent stirring effect to ensure sufficient dissolved oxygen effect.

## Functions and features

1. It is transfer efficiency of high oxygen.
2. It is a stirring function for complete mixing. In addition to the standard activated sludge method, it is also applicable to the long sludge age (SRT) high MLSS activated sludge method or the highly efficient fully mixed activated sludge method (High Rate CMAS).
3. The transmission and stirring of oxygen can be controlled separately.
4. It is low power consumption.
5. The inner and outer nozzles are completely formed by precision casting to ensure the smooth jet flow.
6. It is used in deep aeration and high MLSS occasions. Compared with other aeration systems, the volume of the reaction tank is smaller, which saves space.
7. It is an anti-corrosion accessories.
8. Except for floating and sinking circulating water pumps, there are no running parts in the water, and the maintenance cost is low.
9. The system is simple, so the installation cost is low.
10. A self-cleaning backwash system (Flush-out System) can be used to overcome the trouble of shutting down and draining the pool water when foreign objects are blocked.
11. Because of the submerged design, it can prevent the loss of heat, without fear of freezing, and can maintain biological activity in all seasons.
12. The equipment is installed in the water, and there is no problem of water mist or smoke.
13. It can adopt a complete set of design, with the renewal or addition of existing aeration equipment; construction without water shutdown, shortening the construction period.
14. The highest water depth can reach 15M.
15. The jet self-priming aerator system is suitable for leveling tanks or smaller aeration tanks with water depth below 4M.

Compare JET with Aeration Pipes

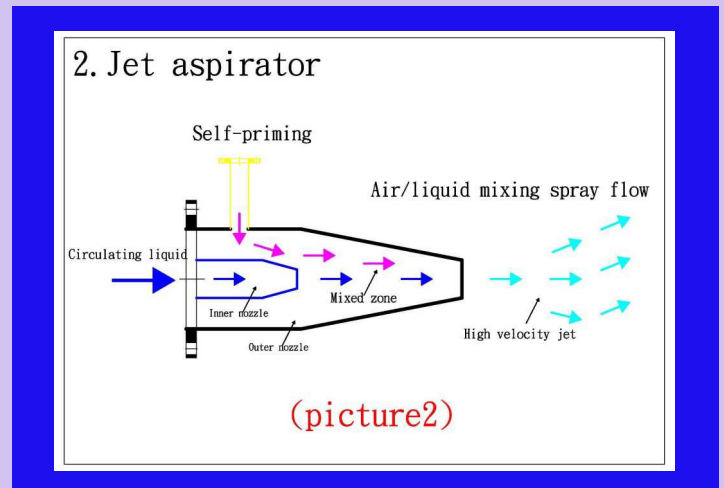
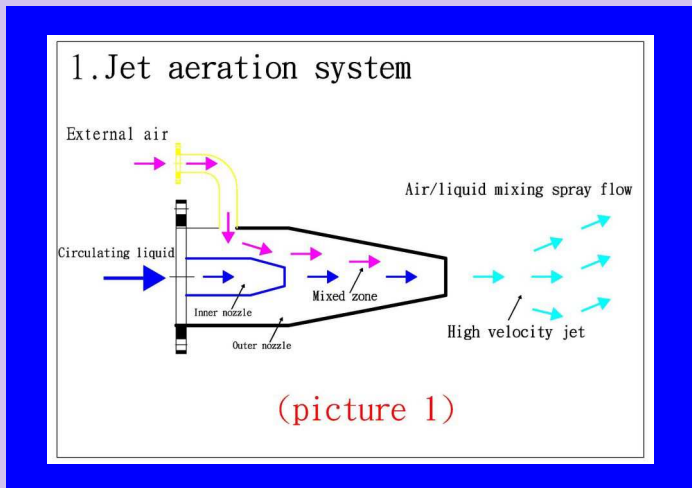
TYPE	JET-STREAM	Diaphragm, Aeration Pipes
Dissolved oxygen efficiency	High	Medium
Equipment Cost	High	More economical
Device Installation	Easier, short installation time	Longer pipeline and longer installation
Economic benefit	High	Initially high, long-term low
Operation. Maintenance	Stable, adjustable dissolved oxygen, non-blocking	Generally, dissolved oxygen is not easy to adjust and easy to block
Service life	Long, up to 15 years	Change regularly, 4~5 years

## Scope of application

1. It is suitable for mixing and aeration in the mixing tank.
2. It is suitable for any aerobic biological treatment system for mixing and aeration.
3. It is suitable for aeration and aeration in deep oxidation channels, oxidation ponds or SBR systems.
4. It is suitable for dissolved oxygen and disinfection tanks are added to the old biological pools.
5. It can control the amount of air for denitrification, nitrification and other processing procedures.

## Type

- 1.(Jet aeration system ) (picture 1)
- 2.(Jet aspirator ) (picture 2)
- 3.(Jet mixing system ) (picture 3)



## Variety of equipment options:

The Jet aerator system can provide the most economical design according to various tanks and various operating conditions. The equipment type can be divided into straight tube single-sided type (photo 1), straight tube double-sided type (photo 2), and round multi-sided type (photo 3).

In terms of materials, stainless steel (such as SUS304, 304L, 316, 316L) or reinforced glass fiber (FRP) can be provided to meet different needs.

The circulating water pump can also be submerged, dry well or land-based.



(picture 3)



(picture 2)



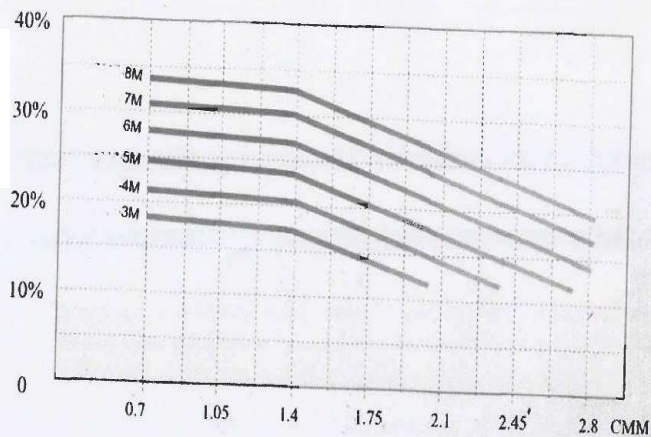
(picture 1)



# JET AERATION MIXER

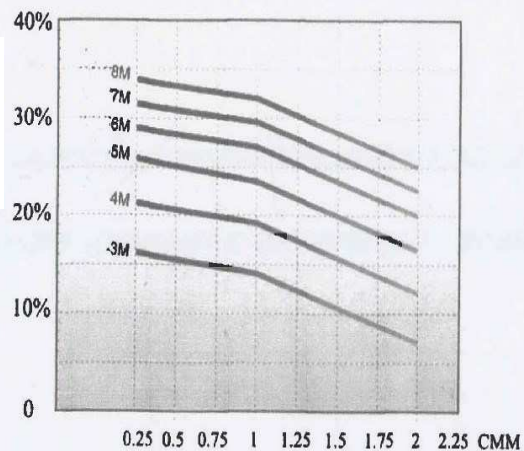
## Dissolved oxygen efficiency

Dissolved oxygen efficiency



JET-50 Air flow/nozzle

Dissolved oxygen efficiency



JET-40 Air flow/nozzle

## Specification Table

Request Specification	Caliber MM	Circulating water volume CMH	Air volume CMH
JET-25	Φ25	10.5~18.5	9~27
JET-40	Φ40	27~45	22~67
JET-50	Φ50	54~90	45~135
JET-65	Φ65	72~120	60~180



※ The air volume is depended on the purpose. We have the right to modify.



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