

SYSTEM DESCRIPTION



JETFLEX® SSD SYSTEM DESCRIPTION THE JETFLEX SSD — EASY TO INSTALL DIFFUSER SYSTEM





In close cooperation with operators, installation companies and environmental engineers Jäger Umwelt-Technik has developed the proven SD to a technologically groundbreaking product, the Smart Strip Diffuser SSD.

In focus of the development was the solution for an old strip and plate diffuser problem: **the realization of a concept that allows fast and safe installation and removal of the membrane on the plant.** With the new SSD this problem has been solved for the first time.

The design separation of the membranes from the supporting body allows the membrane to be replaced without the need to dismantle the supporting body. This does not only save time and money, but it also reduces the environmental impact and leads to an increase in sustainability.

JETFLEX® SSD SYSTEM DESCRIPTION **PROPERTIES**



- Microbubbles for highest efficiency up to 32g $O_2/Nm^3 \times m_{ET}$
- Extremely uniform exhaust behavior
- Series connection of different diffuser lengths up to 9m
- Large air reserve for shock loads due to wide control range
- Fast, safe and cost-effective replacement of the membrane on site
- Thus, avoidance of plastic waste and re-investments by reuse of the basic bodies
- Use of recycled and recyclable materials
- Low buoyancy forces for use on liftable grid structures
- Low pre-piping costs
- High operational reliability
- Connection for drainage system available

JETFLEX® SSD SYSTEM DESCRIPTION FLEXIBILITY OF THE SSD DIFFUSER SYSTEM

The SSD can be installed variably:

- directly on the tank floor
- elevated for height adjustment
- or liftable on a frame construction

The low installation height results in the greatest possible blowing depth. Clogging is significantly minimized.

An essential point for the efficiency of the diffuser system is the arrangement of the diffuser elements in the basin. For a high efficiency, **a flat arrangement** with the smallest possible distances is aimed for.

Due to the slim design of the SSD high **occupancy densities of over 60** % can be achieved in all basin geometries.

SSD can be **coupled.** This makes it possible to achieve diffuser lengths of up to 9 m. This considerably reduces the amount of air supply lines required. The **piping system becomes more cost-effective** without compromising in occupancy density and efficiency of the system.

Usually, the air supply lines consist of bendable PE pipes. This allows **flexible routing** of the lines, without the use of expensive 90° bends.



As installation times of the complete system (diffuser incl. the pipework share up to the basin crown) the following man-minutes can be estimated for trained installers:

- SSD1500 SSD2000: approx. 10min
- SSD2500 SSD4000: approx. 15min

These times are valid for installations in small groups of up to 6 diffusers with PE piping incl. connection to the basin crown pipe.

JETFLEX® SSD SYSTEM DESCRIPTION MAINTENANCE

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SSD 1500	1,5 - 19	≤ 29	
SSD 2000	2,0 - 26	≤ 38	
SSD 2500	2,5 - 32	≤ 48	
SSD 3000	3,0 - 38	≤ 58	
SSD 3500	3,5 - 46	≤ 67	
SSD 4000	4,0 - 52	≤ 76	

* Values for intermediate lengths and further lengths are to be derived accordingly.

** For air volumes below the minimum flow rate, it is recommended that individual groups of diffuser should be completely switched off in order to avoid too low admission.

*** maximum for 10 min. per rinsing / cleaning process

For an effective reduction of possible deposits on the membrane, the diffuser must be regularly flushed with air. The best results are achieved when the membranes are relieved for a few minutes. This can be done by shutting off the grid unit or through a suitable solenoid valve. Subsequently, the maximum realizable air volume is applied to the diffusers for at least five minutes.

In the case of mineral deposits, an additional acid dosage for cleaning the diffuser pores may be useful. Basically, it makes sense to initiate measures as soon as pressure increases occur. Dosing systems are available from Jäger. Regarding maintenance please also read our Operating and Maintenance Manual for SSD.



JETFLEX® SSD SYSTEM DESCRIPTION STANDARD SCOPE OF SUPPLY

Diffuser system consisting of SSD diffusers and PE piping and all fixings up to the ball valve on the top of the basin pool:





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