

MÜNZING Defoamers / Deaerators for digestion tower treatment

General Information

Once in a while the plant operator faces the situation that the digestion tower content foams or even boils over. Sprinkling the digested sludge with water usually is not successful. The first reaction is to lower the sludge level in the digestion tower. However the problem is not solved. The foam is caused by small gas bubbles which are adsorbed to the solid particles of the sludge. By using a deaerator these gas bubbles are merged into larger ones which rise to the surface and burst there.

Application

In general the products AGITAN 25-N and 960-R are suitable for this application. The dosage to the digestion tower can be done by spraying onto the surface or by dosing into the circulation line. The best results can be achieved by dosing the deaerator as a diluted solution. Attention should be paid to the fact that these diluted solutions separate quickly. For this reason an in-line dilution should be preferred.

For this purpose the AGITAN-product is mixed with water using a metering pump and a static mixer. For smaller quantities the diluted solution of the deaerator can be added to a sludge tank immediately before the inlet of the digestion tower. According to the product information the necessary dosage ranges from 0.05-0.5%, based on the dry matter of the sludge. A distinction is made between starting dosage and subsequent daily dosage.

Example of calculation

Digestion tower 2200 m³ volume

Dry matter (sludge): 3.4 %, Dry matter (digestion tower): 74.8 t

Starting dosage: 0.2 % Defoamer

Required starting amount: 150 kg

This amount should be added within 1-2 days into the digestion tower. After this starting dosage, the first success in foam control is already visible in most cases. If no visible effect is observed, the dosage should be increased to 0.5%. After adding the starting dosage, the daily dosage should be applied continuously. The daily dosage is calculated according to the daily sludge production.

Total daily sludge volume, approx. 3 % dry matter: 100 m³

Dry matter, daily: 3000 kg

Defoamer dosage: 0.2%, required daily amount: 6 kg

Should any questions arise regarding the application of MÜNZING defoamers / deaerators, our applied technical service is available to give you any information you may desire. In order to choose suitable products, laboratory and industrial trials are carried out by our application technicians at any time.

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