

# Biogas plant? Let it run, run, run...

## 10 tips for when cold weather strikes



### 1. Input system

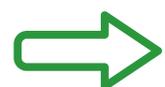
- Check input system regularly: Large, frozen slabs should be nowhere near the input system, as they may damage individual system components.
- For input hoppers with lids, it should be ensured that they are properly closed, even in strong winds.

### 2. Over- and underpressure valve

- A daily inspection of the sealing liquid is absolutely necessary in cold periods, to check for sufficient concentration and therefore that the area of impact is sufficient.
- Do not use antifreeze for windshield washer systems for over- and underpressure valves. The antifreeze used must be effective down to at least  $-30^{\circ}\text{C}$ . If necessary, adjust the antifreeze to the weather conditions. Ensure that there is the correct ratio of antifreeze and water according to the manufacturer's recommendations.
- A sufficient mixing of the fluid inside the valve is to be ensured, as it cannot be ruled out that condensate layers on the sealing liquid might accumulate and freeze.
- It may be necessary, due to the weather, to drain the liquid, make up a new mixture, and use it to refill the system. Further information is also available in the specifications in the documentation.

### 3. Substrate and slurry lines, as well as sampling and urgent removal

- Non-insulated components are to be protected from frost. Inadequate protection leads to blockages which can in turn cause failures.



## 4. Air compressor

- Where there is no automatic drainage, the system must be drained more frequently, as more condensate is formed in the cold weather. Automatic drainage systems must likewise be checked on a regular basis.

## 5. Gas pipes including gas isolation valves

- Check daily whether exposed gas pipes are frozen as a result of the volume of condensate. They may need to be insulated and trace-heated.

## 6. Trace heating and insulation

- Regularly check that system components which are insulated or trace-heated are in a proper condition.

## 7. Container roof systems

- Check that roof systems are in a proper condition; be aware of permissible roof loads in the event of heavy rain or snow.
- Water pockets are to be avoided; also take rain aprons into consideration.

## 8. Roof and floor drains

- Roof and floor drains must be carefully examined on a daily basis, to ensure that pedestrian and vehicular surfaces are kept free of water and ice.

## 9. Building/enclosures

- In the event of heavy frost, it should be ensured that areas which must remain frost-free are closed off.
- In such closed-off areas, the requisite ventilation and monitoring of the ambient air should be checked.

## 10. Outdoor area

- Beware of loose components: They may fly around in strong winds and cause unnecessary damage to the plant.



Checked everything?  
Then your plant is  
safe for the winter.