

Biogas plant?

Let it run, run, run...

10 tips for when cold weather strikes



1. Input system

- Check the input system regularly: Any Large, frozen blocks of Feedstock should be kept clear of the input system, as they may cause damage to individual system components
- For input hoppers with lids, it should be ensured that they are properly closed upon completion of loading, especially in strong winds

2. Over- and underpressure valve

- Daily inspection of the sealing liquid is necessary in cold periods, firstly to check for sufficient concentration and also that enough liquid is present by checking the sight glass
- The antifreeze used must be effective down to at least -30°C; if necessary, adjust the antifreeze concentration to suit the weather conditions; ensure there is the correct ratio of antifreeze to water according to the manufacturer's recommendations
- Good practice would be to agitate/mix the antifreeze weekly, as it cannot be ruled out that condensate layers, forming on top of the sealing liquid, might accumulate and freeze
- It may be necessary to drain the liquid, make up a new mixture, and use it to refill the system; further information is available in plant specification documentation

3. Substrate and slurry lines, as well as sampling points and drain lines

- Non-insulated components should be identified and protected from frost; inadequate protection can lead to blockages which can in turn cause system failures

4. Air compressor

- Where there is no automatic drainage fitted, the system must be drained more frequently, as more condensate is formed in cold weather
- Even 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 condensate; they may need to be insulated and trace-heated

6. Trace heating and insulation

- Regularly check that system components which are already insulated or trace-heated are in good condition

7. Container roof systems

- Check that roof systems are in good condition; be aware of permissible roof loads in the event of heavy rain or snow
- Water pockets accumulating 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, such as control system areas
- In such closed-off areas, the requisite ventilation and the temperature of the ambient air should also be checked with additional room heating introduced where required

10. Emergency and mixed cooling system

- Check the emergency and mixed cooling system for frost resistance

11. Outdoor area

- Be aware 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.