

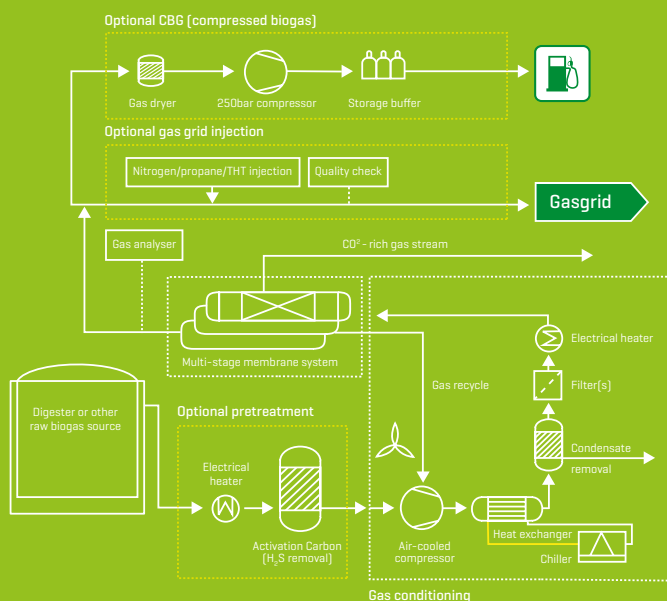
Carborex[®]MS

Biogas upgrading

The highest performance level
with membrane technology

Why use Carborex[®]MS?

- 100 % flow flexibility
- 1 minute start-stop
- Highest uptime
- Plug & Play



How does it work?

When it comes to Biogas upgrading the most important factor is the gas to grid time of the gas cleaning system. If you cannot get your gas to market reliably, your project will suffer. DMT offers the Carborex[®]MS, a containerized, plug and play solution for upgrading biogas. The modern way for purifying biogas, no columns, no water and no chemical needed. A simple compression step combined with a multistage membrane configuration results in 100% flow flexibility. It purifies the biogas to over 99% biomethane. The clean biomethane subsequently can be used for gas grid injection or can be compressed to 250 bar for the use as vehicle fuel.

As far as economical performances, you will find that the Carborex[®]MS is the best the industry has to offer; High performance with ease of operation. The operation of the system can be monitored remotely 24/7 and the simplicity of the design guarantees an uptime higher than 98%.

Selection table

Carborex [®] MS		Biogas Flow SCFM								
Types	50	100	250	400	600	750	1000	1250	1500	1750
HS2			HS2 250	HS2 400	HS2 600	HS2 750	HS2 1000	HS2 1250	HS2 1500	HS2 1750
HS3	HS3 50	HS3 100	HS3 250	HS3 400	HS3 600	HS3 750	HS3 1000			

Higher flows or concentrations on request

Gas separation with our high selective membrane system

Membrane separation is based on the diffusion of CO₂ through a polymer film. Methane diffuses at a much slower rate, which results in a methane-rich gas at the outlet of the membrane. Small polymer tubes are grouped together in modules. Inside the module the biogas is split into a CO₂-rich and a CH₄-rich gas stream. Both the CO₂ and CH₄ phases can be further treated by using a multi-step membrane configuration. This results in an almost pure upgraded methane stream with smaller than 2% CO₂. At the same time the biomethane is dried to a dew point of -50°F. Using the 3-stage configuration, the CO₂ rich stream is also of the highest purity with over 99% CO₂. The rest consist of water vapor and small traces of methane. In this way a methane recovery of more than 99% can be achieved.



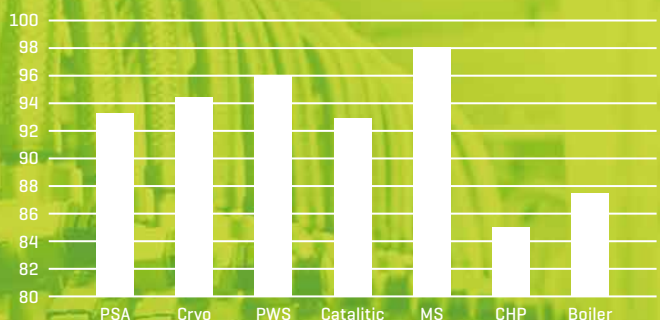
Carborex [®] MS		Dimensions (ft)		
Types		L	W	H
HS 2	50-250	20	10	8
HS 3	50-250	30	10	8
HS 2	400-750	40	10	8
HS 3	400-750	60	10	8
HS 2	1000	60	10	8
HS 3	1000-1750	60	10	8

Options

- Propane injection
- Odourization
- Gatekeeper for grid injection
- Vehicle fuel station (CNG)
- Heat recovery
- Gas conditioning
- H₂S removal

Biogas technology comparison

Upgrading performance



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