BUFFER AND LINE PRESSURE / TEMPERATURE CONTROL PANEL

+ GAS ODORIZING SYSTEM

This item will take place after the vaporizer, in order to control both the line and the buffer pressure. The temperature and the pressure are measured to control the pump and the process.

The pressure regulator placed on the buffer panel outlet will be used to deliver the right pressure to the CNG dispensers.

It will also control the buffer capacity in order to open or close automatically the gas valve to the buffer storage.

Other components such as vent valves, pressure gauges and safety valves are included to guaranty safe operation and maintenance operations.

On this panel you will find the following components:

- ✓ Aluminium frame with protection roof
- ✓ Internal piping and connections
- ✓ Pressure transmitter
- ✓ Pressure gauges
- ✓ High pressure relief valves
- ✓ PT100 vaporization temperature probe
- ✓ Automatic CSV 15 valve with pneumatic actuator
- ✓ manual CSV 15 vent valves DN15 PN400
- ✓ Odorizer inlet
- ✓ non return valve
- ✓ Connections for the line and the buffer in ½"

Important notes:

⇨ The buffer storage capacity will be supplied by the customer as a bundle.

⇨ For fast filling application, a 2400 liters buffer storage capacity is recommended.

⇨ For slow filling application, a 200 liters buffer capacity will be sufficient in order to absorb the boil-off gas contained into the lines and the vaporizer after the station stop.

Adding odorant into the natural gas allows to be able to smell the gas if there is an accidentally leakage in the process.

It is very important that we can smell the gas, if there is a leakage, before the mixture of gas becomes explosive. It's important that odorant is strong enough so that you easily can recognize the smell of the gas.

Methane becomes explosive within a mixture of 5 % of the volume it's therefore very important that the mixture of odorant and gas is strong enough so that you are able to recognize the smell in less than 1 % mixture of the volume.

The recommended dosage of odorant liquid is approx. 2,5 mm^3 for 1 m^3 (may vary depending on different Odorant). This would, according to the above stated requirements, be satisfying for enough odorant in the gas.

The information of the required dosage can be supplied from the producer of the odorizing-liquid.

If the plant has an average production of gas of approx. 100 m^3/ h, you have to add approx. 250 mm^3 /h.

Following parts are included in the system:

- ✓ Pneumatic dosage pump type Williams P125V125BTC, inclusive equipment for pneumatic treatment.
- ✓ Tube installation with valve panel
- ✓ Hoses with quick couplings for connection with the odorizing barrol
- ✓ Buffer tank (approx. 2 L)
- ✓ Sight glass / calibration glass with scale
- ✓ Solenoid valve ATEX-approved, which guides the supply of pressurized air for dosage pump (24 Volt universal)
- ✓ The equipment is mounted on a 5 mm thick aluminium sheet which is resistant to salt water
- ✓ Measurements: 600X800 mm. The odorant liquid is pumped into the outgoing gas tube when it's sent to storage tank. This is done through a stainless steel line that is mounted on the gas line of pure gas
- ✓ Odorant gas to be supplied by Customer