

### Nitrogen generators type MONOLEN

**Originated from the Greek word „monos“ the nomination Mono-gas has been adapted, because in general only one gas exists ( $N_2$ ) in this gas. Mono-gas will be produced in such a way, that Exo-gas will receive further cleaning, i.e. carbon dioxide ( $CO_2$ ) and ( $H_2O$ ) will be removed.**

**FK Industrieofenbau + Schutzgastechnik GmbH is using the molecular sieve-method. The advantage using the adsorption method is the possibility to remove carbon dioxide ( $CO_2$ ) and water vapor in one process-step.**

**Molecular sieves are synthetic manufactured Metal-Alloy-Silicates. The structure of these silicates does not change during the de-watering and thus has a very high adsorption possibility.**

**The re-generation of these molecular sieves is done with the evacuation method. During the evacuation (done with three barrels) the first barrel cleans the process-gas. In the second barrel the molecular sieve will be evacuated and at the same moment backwashed with Mono-gas (only a very small amount of Mono-gas is needed for this process). The third barrel will be filled up under normal operating pressure with clean Mono-gas.**

**The switching of the three barrels is done automatically by means of shutoff-flaps which re actuated by pneumatic cylinders. The control of these flaps is done by the central Siematic controls.**

**The quality of the produced process gas will be controlled continuously by means of special dew-point measurement.**

**Attached is a picture of a complete Mono-gas system**



**Complete Monogas unit, consisting of Exo-gas generator type EXOLEN and dryer type PURILEN**



**Dryer unit type PURILEN**