



## HIGH PERFORMANCE MEDIA SUPPLY SOLUTIONS MADE IN GERMANY

### Professional Engineering

SEMPA SYSTEMS develops, manufactures and distributes high purity media supply systems and turn-key solutions to the semiconductor, photovoltaic, glass fiber and printed electronics industry. From our sites in Dresden and Erfurt and in conjunction with our cooperation partners we serve a global customer base.

Our team consists out of 80 professionals which are dedicated to serve our customers needs.

Our aim is not only to satisfy a customer demand, but to work cooperatively together with our clients identifying challenges and opportunities in advance, hence being an active partner reaching process excellence at our clients. SEMPA's main mission is our commitment to quality and to realize solutions for tomorrow's challenges today.

SEMPA is Engineering Partnership



**Kurt Pietsch**  
Managing Director



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**Gas supply container**  
 › Central, stand alone outside container, uninterruptible



**Gas supply cabinet**  
 › Safe, uninterruptible and redundant gas supply



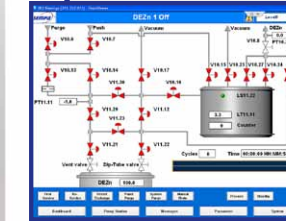
**Engineering and Design**  
 › Solutions for process optimization through advanced process technology  
 › Development of FTIR and laser spectroscopy based sensor systems for process optimization in cooperation with research institutes and universities  
 › Safety concepts and system analysis  
 › Dimensioning and optimization of systems  
 › Design and technical documentation based on Auto CAD and Solid Works  
 › Development of operation manuals



**Liquide distributions systems**  
 › Uninterruptible supply of liquids for highest purity applications in semiconductor and solar industry  
 › Meeting the highest safety standards  
 › High uptime systems through robust technology and redundant setup



**PLC controlling and monitoring interface solutions**  
 › Different supplier  
 › communication platforms like Ethernet, Profibus, Modbus



**Gasdetection**  
 › Electro chemical and catalyst based GAS measurement in the ppb ... vol% range



**Dopant gas mixing station**  
 › Highly stable mixing ratio



**Valve manifold boxes (VMB's/ VMP's)**  
 › Valve manifold boxes for Purity and Ultra High Purity discharge systems for gases and chemicals



**High purity ozone generation system**  
 › Ozone generation up to 300g/Nm<sup>3</sup>  
 › Discharge process by oxygen separation



**FTIR Process Measurement**  
 › Inline real time exhaust gas metrology for process development



**Multigas analyser for industrial application**  
 › Different parts of natural gases



**Evaporation systems**  
 › By process evaluation we offer the right evaporation concept  
 › Customisation for your process requirements  
 › Possibility for highest accuracy, compact design and high evaporation rates



**Permeation measurement**  
 › WVTR 10<sup>-6</sup> g[H<sub>2</sub>O]m<sup>-2</sup>d<sup>-1</sup> detection limit using a non drift or aging optical sensor



**Abatement**  
 › Smart passive abatement concept for metal organic chemicals  
 › Low investment costs compared to regular burner washer scrubbers  
 › Low cost of ownership



**Service and Operation of Equipment**  
 › 24h on-call duty  
 › Exchange of cylinders and bundles for gases and chemicals  
 › System Check-up and Operation  
 › Maintenance and inspection  
 › Repair and service  
 › Maintenance of gas detection systems including pumps and peripherals  
 › Safety concepts and audits  
 › Compilation of operating procedures  
 › Quality inspection using advanced metrology