## Gläser Inc.

The company Gläser GmbH was founded in 1976 in the Black Forest region, in Horb, Germany. The company is led by second generation of the family, CEO Claudia Gläser as CEO after the founder Fritz-Jörg Gläser retired. With 50 employees worldwide and 3 plants, the company officially opened its first non-European office in January 2012 Gläser Inc, in Tuscaloosa. The USA branch was established and is run by Vice President Maren Witza who has been with the company for 12 years. She has been responsible, since 2002 for establishing the firm's laboratory near Stuttgart. Thanks to Ms Witza's commitment, it is now one of the largest labs in Europe, testing as many as 3000 components per year. From Gläser's location in Tuscaloosa, the lab is able to access markets in USA, Canada, Mexico, and also South America.



In today's high-tech manufacturing environment, the components used to make engines, fuel-injection systems and other sophisticated parts that go into autos, jets and other products demands high cleanliness. A cleanness that is not measured in a speck or smudge but in 5 to 20 micrometer ( $\mu$ m) particles invisible to the naked eye. Checking for those impurities on components is what Gläser Inc. does.

They will test things like screws, washers, seals, mostly metal parts and check them for residual dust particles. The testing is done in a special "clean room" where components are put into a dust/particle free analytical machine made by Gläser in Germany. A special solution washes the components to remove the microscopic particles, which are captured in a membrane that is removed and examined under a high-powered microscope and weighed in a highly accurate lab scale. The membranes are weighed before and after the particles are captured. The lab scale will detect weight differences to thousandths of a gram. Every manufacturer has set its own specifications on the maximum number of particles it will accept on its various components.

In viewing the membrane under a microscope, the particles are counted and variance in their sizes can be measured. The amount and size of particles is important because they can cause the components to crack, leak or not hold up under stress which can cause engines, fuel-injection systems or other key parts to break down or malfunction. Clean components make for less waste during production, longer intervals between inspections, and improved performance.

At the lab location in Tuscaloosa they will test smaller components like screws, washers, and seals. In Germany, Gläser can test larger components like engine blocks, crank shafts or diesel aggregates weighing up to half a ton. Core competences offered in USA is: cabinet's technical cleanliness, service technical cleanliness, trade laboratory equipment technical cleanliness and consulting technical cleanliness.