

Hennigsdorf, 22.11.2021

Air Bearing Bond Head from Tresky Wins 2021 Innovation Award

Tresky GmbH won the State at Brandenburg 2021 Innovation Award 2021 in the metal category. The manufacturer of innovative die bonders from Hennigsdorf near Berlin has prevailed against the competition with the newly developed air-bearing bond head, which will be presented to the professional public for the first time at Productronica 2021.

In order to achieve minimal contact force during bonding, Tresky GmbH has developed an air-bearing bond head that enables clearance and friction free vertical movement when the chip is placed. The air bearing is kept suspended by vacuum or compressed air and controlled by a proportional valve that can operate from vacuum to atmospheric pressure. The bond head recognizes changing weights and can therefore maintain its floating state at all times. This results in a weight compensation of the component. By changing the proportional valve from vacuum to pressure, a defined weight force can now be exerted in the vertical direction on the semiconductor component and be placed or absorbed with an exact force.

With the air-bearing bond head for force-controlled placement of highly sensitive components, Tresky has developed a pioneering tool for future semiconductor production. Due to the advancing miniaturization in the electronics industry, newly developed semiconductor chips have to become smaller and thinner. This leads to enormous challenges in chip bonding assembly and connection technology, the materials required for this are becoming more and more sensitive. In addition, new materials are used that also have to be treated with great care. "In the past, silicon (Si) or germanium (Ge) were used in most cases to manufacture semiconductors. Especially driven by the development of new generations of laser, LED, diode or transistor semiconductors, materials such as gallium arsenide (GaAs), gallium nitride (GaN) or e.g. silicon carbide (SiC) are now being used," explains Schultze. However, some of these compound semiconductors, such as gallium arsenide (GaAs), have the disadvantage of their positive electrical properties of being mechanically not very stable and brittle.

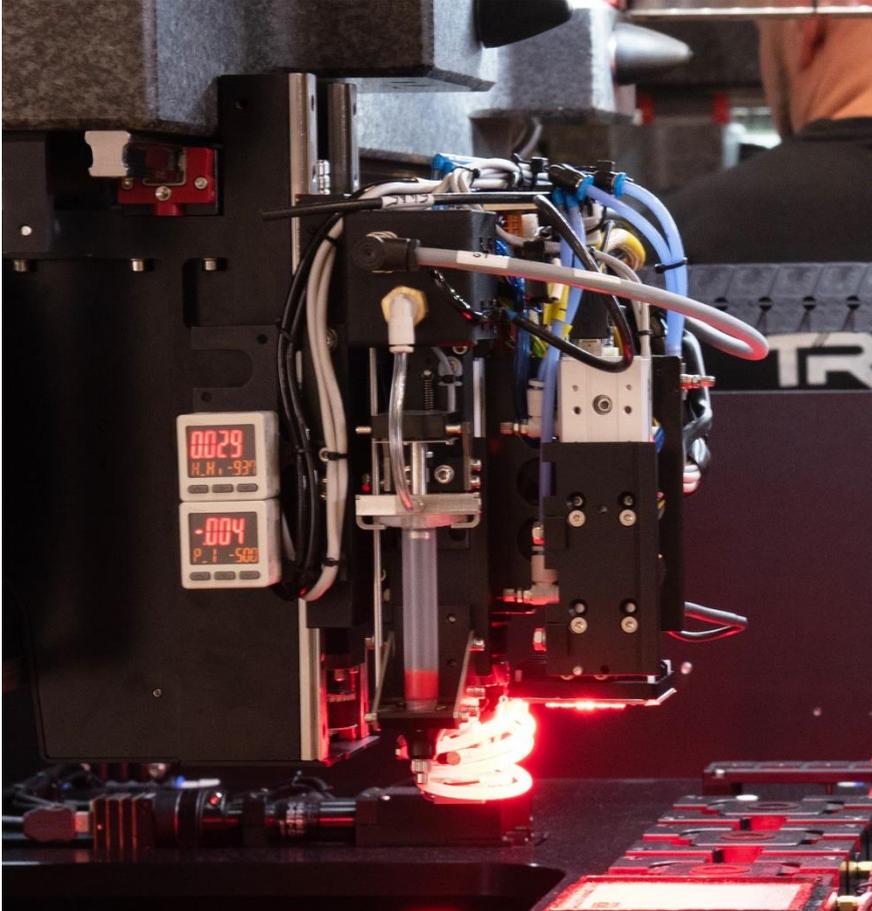
The Brandenburg Innovation Award is a project by the State of Brandenburg on behalf of the Ministry of Economics, Labor and Energy. With the Innovation Award, Brandenburg honors innovative developments and processes that simplify manufacturing processes or make them more efficient. Tresky is awarded in the categories of metal, plastics and chemistry as well as the food industry. The Award ceremony will take place on November 18, 2021.

About Tresky

The name TRESKY is known for the highest quality, flexibility and maximum reliability since 1980.

Tresky GmbH is one of the world's leading machine manufacturers for assembly systems in the high-precision area with 40 years of experience in the semiconductor market. The company is headquartered in Hennigsdorf near Berlin, in the middle of a technology park where numerous highly specialized companies from the fields of automation, electrical engineering and communication technology as well as the life science sectors are based. Quality "Made in Germany" - Tresky develops, produces and sells its DIE bonders at its headquarters in Hennigsdorf. For further information please visit: <https://www.tresky.de/en/>

Pressemitteilung

Picture:**Picture description:**

Treskys air bearing bond head

Deeplinks:

<https://www.tresky.de/en/>

Press

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