

Press release

Leipzig, 10.05.2021

DBFZ and ATNA have started their cooperation for further development of a new briquetting technology

Based on a cooperation agreement between DBFZ and the briquetting plant manufacturer ATNA Industrial Solutions GmbH, representatives of both institutions as well as investors met at DBFZ on May 6, 2021. The aim of the planned cooperation is the establishment of a scientific cluster to solve existing challenges in densification of challenging biogenic materials in several steps.

As part of the cooperation kick-off, representatives of ATNA Industrial Solutions GmbH presented a new type of stamp briquetting machine at DBFZ's technical center. The machine is based on the principle of single-channel densification and includes several steps. In this way, the stroke paths of the compression pistons used for briquetting can be significantly reduced and the system as a whole can be operated in a more energy-efficient way. This operating principle also makes it possible to reduce briquette diameters, because the shortened compression piston also allows smaller diameters without increased risk of buckling. In addition to the production of briquettes for industrial applications, mini briquettes with a diameter of 2 cm can be produced to provide tailor-made fuels for small-scale combustion and gasification plants. Especially for challenging woody and non-woody biomasses, this offers a real alternative to pelleting.

The cooperation with ATNA Industrial Solutions GmbH also enables direct collaboration in the further development of the design and operation of the briquetting machine for the production of the mini briquettes. Depending on the type and origin of the biomass, DBFZ will also employ simulation tools in conjunction with test series for model validation, which allow for enhanced prediction of the briquetting process. The first projects are currently realized jointly.

ATNA Industrial Solutions GmbH (ATNA) is a mechanical and plant engineering company founded in 2019 in Leipzig, Germany. The company is engaged in the development and production of machines for the production of briquettes of different formats and feedstocks. Thus, renewable, mineral and fossil raw materials as well as residual and waste materials can be processed into briquettes of the highest quality on ATNA's briquetting machines. Furthermore, ATNA supports its customers in carrying out laboratory tests and feasibility studies on complex process engineering issues and transfers the results into individual plant designs. Further information: www.atna-solutions.com

General Management:
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Daniel Mayer (admin.)

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Official presentation of the stamp briquetting machine in the DBFZ's new technical center (Picture: Wolfgang Grote/ATNA Industrial Solutions GmbH)

Smart Bioenergy – innovations for a sustainable future

The DBFZ works as a central and independent thinker in the field of energy and material use of biomass on the question of how the limited available biomass resources can contribute to the existing and future energy system with sustainability and high efficiency. As part of the research the DBFZ identifies, develops, accompanies, evaluates and demonstrates the most promising fields of application for bioenergy and the especially positively outstanding examples together with partners from research, industry and public. With the scientific work of the DBFZ, the knowledge of the possibilities and limitations of energy and integrated material use of renewable raw materials in a biobased economy as a whole should be expanded and the outstanding position of the industrial location Germany in this sector permanently secured – www.dbfz.de/en.

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