**Insulating material handling at Austrotherm plant uses DS AUTOMOTION AGV system:**

**AGVs help tackle Climate Change**

*In their production site in Pinkafeld, Austria, Austrotherm produces energy-saving insulating panels. An automatic guided vehicle system from DS AUTOMOTION with four driverless AMADEUS Grip forklifts takes care of the transport, storage and retrieval of the upstream product, Styrofoam blocks as big as 5 m3. This enabled Austrotherm to optimize internal procedures, enhance process stability and mobilize capacity reserves as well as reassign former transport workers to perform more demanding tasks.*

Austrotherm GmbH is a leading European manufacturer of energy-saving building insulation made of expanded polystyrene (EPS; Styrofoam) and extruded polystyrene foam (XPS). In its Pinkafeld plant near the Hungarian border, the company mainly produces EPS panels.

**Intralogistics Feasibility Limits**

The upstream products – Styrofoam blocks measuring 4080 by 1040 by max. 1.290 mm – need to be left to dry for several days before they can be cut into panels and bundled into packs. Up to 90 blocks per hour need to be moved in three-shift operation, around the clock every day of the year. This requires observing the required drying periods. Transport by hand pallet truck limits reached capacity limits and workers were less than enthusiastic about this work. Using manual lists for storage management also hampered production planning optimization.

**Optimized Upstream Products Intralogistics**

Following a suggestion by Fraunhofer Austria Research, a co-operation partner for logistics and production management, Austrotherm automated the transport and storage management of the Styrofoam blocks utilizing an Automated Guided Vehicle (AGV) solution from DS AUTOMOTION. This Austrian manufacturer boasting more than 35 years of experience in developing and manufacturing AGVs implemented a system that ensures particularly economic operations at low investment costs.

Four driverless AMADEUS Grip forklifts equipped with bracket-shaped lifting gear each transport two hard foam blocks. The vehicles need to use single lane aisles in controlled bi-directional traffic, share traffic zones with manned forklifts and cross fire doors. As laser navigation is not an option for transporting 4.08 m tall EPS blocks in a hall with 4.30 m headroom, the vehicles utilize magnetic reference points in the floor for free navigation.

The DS NAVIOS AGV control software optimizes storing and retrieving the blocks, taking the required drying periods into account. As a step towards the smart factory, the DS AUTOMOTION AGV system is deeply integrated with Austrotherm’s enterprise IT. In close co-operation with DS AUTOMOTION, the Austrotherm IT department created the software interfaces across which machines and transfer stations communicate with DS NAVIOS and the AGVs.

“The tireless AMADEUS Grip have become an indispensable part of our production facility and the former transport workers are now performing more demanding and more attractive tasks”, says Dr. Heimo Pascher, Technical Director Austria at Austrotherm. “We are therefore planning to automate the upstream products intralogistics using DS AUTOMOTION AGVs in other production facilities as well.”

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|  | In 24/7 operation, an Automated Guided Vehicle (AGV) solution from DS AUTOMOTION hauls upstream products for building insulation panels in the form of XPS blocks 4.080 mm tall, 1.040 mm long and up to 1.290 mm wide in the Austrotherm production facility at Pinkafeld,  Photo: Austrotherm |
|  | With free navigation using point referencing, four driverless AMADEUS Grip forklifts equipped with bracket-shaped lifting gear transport two hard foam blocks each to a block storage managed by the AGV system. After a predefined drying period, they retrieve them and move them on to cutting or pressing equipment.  Photo: Austrotherm |
|  | Dr. Heimo Pascher, Technical Director Austria, Austrotherm:  “The tireless AMADEUS Grip have become an indispensable part of our production facility and the former transport workers are now performing more demanding tasks.”  Photo: Austrotherm |

**About DS AUTOMOTION**

DS AUTOMOTION GmbH, headquartered in Linz, Austria, is a globally leading supplier of automated guided vehicle (AGV) transport systems. Since 1984, the company has been specialising in development and production of automation solutions for various applications and industries. The company’s rich experiences from the development and production of more than 6,000 custom vehicles loops back into the development of standard products. Employing roughly 250, DS AUTOMOTION generates an annual turnover of over 50 million Euros, 96 percent of which are export.

Find more information at [www.ds-automotion.com](http://www.ds-automotion.com).