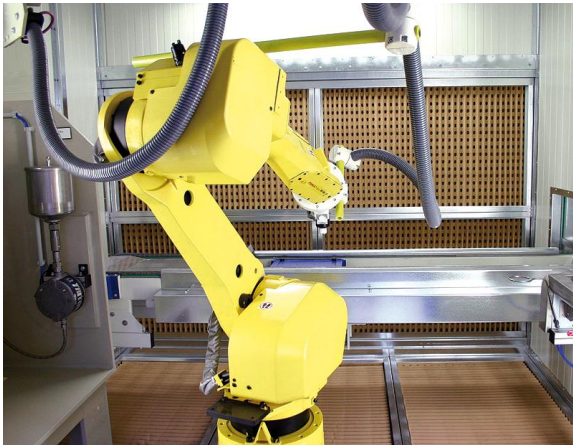

Robot assisted coating of windows and elements of wood for energy saving and optimized surfaces



This is a finished research project of robotic assisted coating of windows and other wood elements meeting the requirements of small medium enterprises producing 25 - 50 windows per day. A very intensive research technology project where a fully-automatic coating device has been developed together with the enterprise 'Reiter Oberflächentechnik' with the aim of expanding the traditional spraying technology process through an airless process leading parallel to the more material efficient floating technology with only one robotic system. For the verification of the trials different wood samples were robot coated with transparent and pigmented wood coating formulations with adapted viscosity provided by different coating companies. The robot serial trials elaborated further on the influence of coating velocities and distances to the wooden element on surface quality.



Program assisted coating of a wood sample with an opaque white waterborne acrylate coating system through the traditional MAE-spraying device of the Fanuc Typ M-16i/B/20.

The implementation of this new robot assisted technology to the European windows industry is the next important step. The company "Reiter Oberflächentechnik" therefore will display this new technique at several fairs and events in 2012 / 2013 especially at the "Fensterbau Frontale" Fair in Nuremberg.

Title of project: Robot assisted coating of windows and elements of wood for energy saving and optimized surfaces

Support Program/Supported by/Sponsored by: AiF funded Project (ZIM - cooperation module

Duration: 2008 -2011

Partner: AIF e.V., 'Reiter Oberflächentechnik'

Responsible for project/Project Leader/Contact: Guido Hora