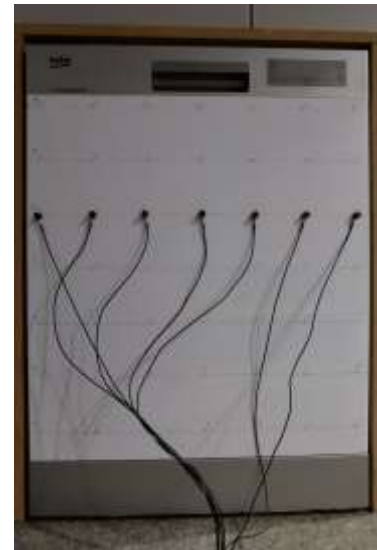
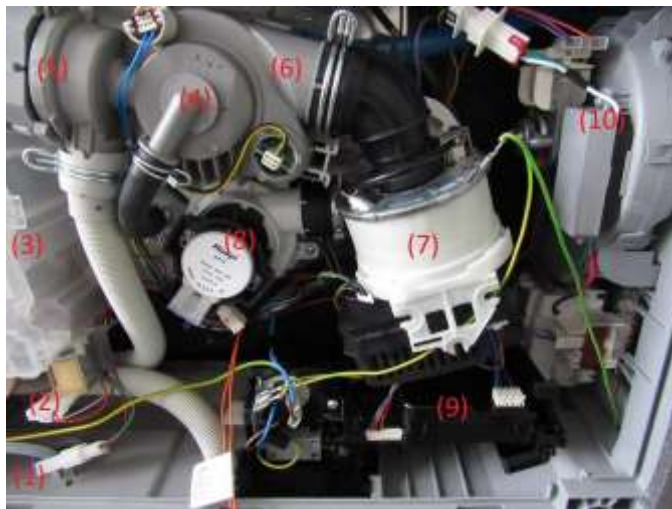


**Diplomarbeit/Studienarbeit**

**Topic: Investigation of vibro-acoustic behavior of dishwashers**



Noise is becoming a prominent parameter in the household appliance market: Manufacturers are trying to be ahead of their rivals with the lower noise emission levels and higher sound quality aspects. In order to achieve this goal, detailed investigation of the vibro-acoustic behavior of the dishwashers are necessary. This detailed investigation should include the analyses of the possible noise sources of a dishwasher, such as, motor noise, fans, rotating spray arms and water splash noise with the all possible noise paths using the methodologies of Transfer-Path-Analyses (TPA).

Following themes can be investigated in detail:

- Overall modal analyses of the inner and outer dishwasher structure, simulations and optimization possibilities
- Vibro-acoustic investigations in different components (pump, elastomeric connections, plastic/elastic hose, hose connections etc.)
- Literature research on water splash noise on wet surfaces, understanding the effect of water splash noise in a dishwasher and possible noise control measures
- Investigation of different airborne – structure borne noise paths

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