

Project Information



Subject **Development of metallic bipolar plates**

Applicant Masterflex AG
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Project Duration: 06/2004 – 12/2006

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Project description:

Aim of the project is the development of metallic bipolar plates to be applied in PEM fuel cell. Those bipolar plates need to meet the demands cost efficient production at small scales. After conducting an intensive research concerning corrosion resistant materials the project deals with the application of hydro-forming technique for the production of bipolar plates. Another aspect is the identification, the development, the optimization and eventually the application of an adequate gasket concept. Furthermore, a key issue of the project is to proof a method of using only one piece of metal for one fuel cell module. As a result, forming and assembly of two bipolar plates would become obsolete. At the same time, further analysis of the flow field and its optimization with regard to the structure will be done. Finally, all results will contribute to an optimized stack design, which will then be tested under different conditions.



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